

Union Pacific Rules

- [UPRR - General Code of Operating Rules](#)
- [Train Dispatcher Rules](#)
- [Air Brake and Train Handling Rules](#)
- [Safety Rules](#)
- [System Special Instructions](#)
- [Instructions for Handling Hazardous Materials](#)



BUILDING AMERICA®

[Union Pacific Rules](#)

UPRR - General Code of Operating Rules

Seventh Edition

Effective April 1, 2015

Includes Updates as of July 6, 2016

PB-20280

[1.0: GENERAL RESPONSIBILITIES](#)

[2.0: RAILROAD RADIO AND COMMUNICATION RULES](#)

[3.0: Section Reserved](#)

[4.0: TIMETABLES](#)

[5.0: SIGNALS AND THEIR USE](#)

[6.0: MOVEMENT OF TRAINS AND ENGINES](#)

[7.0: SWITCHING](#)

[8.0: SWITCHES](#)

[9.0: BLOCK SYSTEM RULES](#)

[10.0: RULES APPLICABLE ONLY IN CENTRALIZED TRAFFIC CONTROL \(CTC\)](#)

[11.0: RULES APPLICABLE IN ACS, ATC AND ATS TERRITORIES](#)

[12.0: RULES APPLICABLE ONLY IN AUTOMATIC TRAIN STOP SYSTEM \(ATS\) TERRITORY](#)

[13.0: RULES APPLICABLE ONLY IN AUTOMATIC CAB SIGNAL SYSTEM \(ACS\) TERRITORY](#)

[14.0: RULES APPLICABLE ONLY WITHIN TRACK WARRANT CONTROL \(TWC\) LIMITS](#)

[15.0: TRACK BULLETIN RULES](#)

[16.0: RULES APPLICABLE ONLY IN DIRECT TRAFFIC CONTROL \(DTC\) LIMITS](#)

[17.0: RULES APPLICABLE ONLY IN AUTOMATIC TRAIN CONTROL \(ATC\) TERRITORY](#)

[GLOSSARY: Glossary](#)



BUILDING AMERICA®

[Union Pacific Rules](#)

Train Dispatcher Rules

Effective August 1, 2008

Includes Updates as of June 25, 2016

PB-20319

[20.0: GENERAL DUTIES OF THE TRAIN DISPATCHER](#)

[21.0: SIGNALS AND THEIR USE](#)

[22.0: MOVEMENT OF TRAINS AND ENGINES](#)

[23.0: SWITCHES AND BLOCK SYSTEM RULES](#)

[24.0: CTC RULES](#)

[25.0: CAB SIGNAL and PTC TERRITORIES](#)

[26.0: TWC RULES](#)

[27.0: TRACK BULLETIN RULES](#)



BUILDING AMERICA®

[Union Pacific Rules](#)

Air Brake and Train Handling Rules

Effective May 2, 2016

Includes Updates as of May 2, 2016

PB-20329

Union Pacific Railroad. All Rights Reserved.

These rules become effective at 0900, Monday, May 2, 2016. At that time, all previous rules and instructions that are inconsistent with these rules become void.

[30.0: Train Air Brake Tests/Inspections Chapter 30](#)

[31.0: Locomotive Consist Requirements Chapter 31](#)

[32.0: Securement/Train Operations - Chapter 32](#)

[33.0: Distributed Power and Manned Helper Chapter 33](#)

[34.0: Train Handling Chapter 34](#)

[35.0: Remote Control Operations Chapter 35](#)

[36.0: Positive Train Control Chapter 36](#)

[37.0: Reserved for Future Use - Chapter 37](#)

[38.0: Commuter/Business Train Operations - Chapter 38](#)

[39.0: Equipment Charts/Diagrams - Brakes - Chapter 39](#)

[GLOSSARY: Glossary](#)



BUILDING AMERICA®

[Union Pacific Rules](#)

Safety Rules

Effective July 2, 2013

Includes Updates as of May 2, 2016

PB-20369

Union Pacific Railroad. All Rights Reserved.

These rules become effective at 0900, Tuesday, July 2, 2013. At that time, all previous rules and instructions that are inconsistent with these rules become void.

[STATEMENT: Statement of Safety Policy](#)

[70.0: GENERAL SAFETY INSTRUCTIONS](#)

[71.0: PERSONAL PROTECTIVE EQUIPMENT](#)

[72.0: FIRE PREVENTION](#)

[73.0: EXPLOSIVES](#)

[74.0: VEHICLE OPERATIONS](#)

[75.0: MATERIAL HANDLING](#)

[76.0: TOOLS AND MACHINERY](#)

[77.0: MECHANICAL LIFTING/PULLING OPERATIONS](#)

[78.0: ELECTRICAL](#)

[79.0: WELDING](#)

[80.0: WALKING/WORKING SURFACES](#)

[81.0: WORKING AROUND TRACKS OR BEING ON EQUIPMENT](#)

[82.0: HANDLING SWITCHES AND DERAILS](#)

[83.0: INTERMODAL RAMP RULES](#)

[GLOSSARY: Glossary](#)

[INDEX: Index](#)



BUILDING AMERICA®

[Union Pacific Rules](#)

System Special Instructions

Effective May 2, 2016

Includes Updates as of July 6, 2016

PB-27015

[COVER: Cover Page](#)

[SHL: Safety Hot Lines](#)

[TOC: Table of Contents](#)

[INTRO: Introduction to Special Instructions](#)

[ITEM 1: Time Comparison](#)

[ITEM 2: Speed Restrictions](#)

[ITEM 3: Trains Handling - Company Equipment](#)

[ITEM 4: Locomotive Information](#)

[ITEM 5: Car Placement and Train Make-Up Restrictions](#)

[ITEM 6: Maximum Gross Weight Limitations](#)

[ITEM 7: Employee Information](#)

[ITEM 8: Heavy and Mountain Grade Operations](#)

[ITEM 9: Use of Engine Horns](#)

[ITEM 10: Rule Supplements & Amendments](#)

[ITEM 11: Moveable Point Frogs](#)

[ITEM 12: Track Breach Protection](#)

[ITEM 13: Train Defect Detectors](#)

[ITEM 14: Operating With Foreign Railroads](#)

[ITEM 15: Work Orders](#)

[ITEM 16: Tornado Watch and Warning Instructions](#)

[ITEM 17: Accessing General Orders and Bulletins Electronically](#)

[ITEM 18: Distant Signals](#)

[ITEM 19: Block and Interlocking Signals](#)

[ITEM 20: Automatic Cab Signals](#)

[ITEM 21: Slide Warning Indicator](#)

[ITEM 22: Roadway Signs](#)

[ITEM 23: Security Alert Instructions](#)

[ITEM 24: California Proposition 65 Warning](#)

[EXPLAIN: Explanation of Characters](#)

[OTHERS: Other Available Reference Material](#)



BUILDING AMERICA®

[Union Pacific Rules](#)

Instructions for Handling Hazardous Materials

Effective July 2, 2013

Includes Updates as of May 2, 2016

PB 20800

[INTRO: Introduction](#)

[TOC: Table of Contents](#)

[Section I: General Information](#)

[Section II: Required Documentation](#)

[Section III: Inspection](#)

[Section IV: Placards and Markings](#)

[Section V: Switching](#)

[Section VI: Train Placement](#)

[Section VII: Train Operations](#)

[Section VIII: Emergency Response](#)

[APPENDIX: Appendix](#)

[GLOSSARY: Glossary](#)

Union Pacific Rules

UPRR - General Code of Operating Rules

1.0: GENERAL RESPONSIBILITIES

- [1.1: Safety](#)
- [1.1.1: Maintaining a Safe Course](#)
- [1.1.2: Alert and Attentive](#)
- [1.1.3: Accidents, Injuries, and Defects](#)
- [1.1.4: Condition of Equipment and Tools](#)
- [1.2: Personal Injuries and Accidents](#)
- [1.2.1: Care for Injured](#)
- [1.2.2: Witnesses](#)
- [1.2.3: Equipment Inspection](#)
- [1.2.4: Mechanical Inspection](#)
- [1.2.5: Reporting](#)
- [1.2.6: Statements](#)
- [1.2.7: Furnishing Information](#)
- [1.3: Rules](#)
- [1.3.1: Rules, Regulations, and Instructions](#)
- [1.3.2: General Orders](#)
- [1.3.3: Superintendent Bulletins, Instructions, and Notices](#)
- [1.4: Carrying out Rules and Reporting Violations](#)
- [1.4.1: Good Faith Challenge](#)
- [1.5: Drugs and Alcohol](#)
- [1.6: Conduct](#)
- [1.6.1: Motor Vehicle Driving Records](#)
- [1.6.2: Notification of Felony Convictions](#)
- [1.6.3: Notification of Deteriorating Vision or Hearing](#)
- [1.7: Altercations](#)
- [1.8: Appearance](#)
- [1.9: Railroad Company](#)
- [1.10: Games, Reading, or other Media](#)
- [1.11: Sleeping](#)
- [1.11.1: Napping](#)
- [1.12: Weapons](#)
- [1.13: Reporting and Complying with Instructions](#)
- [1.14: Employee Jurisdiction](#)
- [1.15: Duty - Reporting or Absence](#)

- [1.16: Subject to Call](#)
- [1.17: Hours of Service Law](#)
- [1.18: Unauthorized Employment](#)
- [1.19: Care of Property](#)
- [1.20: Alert to Train Movement](#)
- [1.21: Occupying Roof](#)
- [1.22: Unauthorized Persons on Equipment](#)
- [1.23: Altering Equipment](#)
- [1.23.1: Locomotive-Mounted Safety Devices](#)
- [1.24: Clean Property](#)
- [1.25: Credit or Property](#)
- [1.26: Gratuities](#)
- [1.27: Divulging Information](#)
- [1.28: Fire](#)
- [1.29: Avoiding Delays](#)
- [1.30: Riding Engine](#)
- [1.31: Repairs to Foreign Cars](#)
- [1.32: Overheated Wheels](#)
- [1.33: Inspection of Freight Cars](#)
- [1.34: Flat Spots](#)
- [1.35: Dump Doors](#)
- [1.36: Excessive Dimension Loads](#)
- [1.37: Open Top Loads](#)
- [1.38: Shipments Susceptible to Damage](#)
- [1.39: Accuracy of Speed Indicator](#)
- [1.40: Reporting Engine Defects](#)
- [1.41: Engines Coupled to Occupied Passenger Cars](#)
- [1.42: Trains Detoured](#)
- [1.43: Stopped in Tunnels](#)
- [1.44: Duties of Train Dispatchers](#)
- [1.45: Duties of Control Operators and Operators](#)
- [1.46: Duties of Yardmasters](#)
- [1.47: Duties of Crew Members](#)
- [1.47.1: Cab Red Zone](#)
- [1.47.2: Training and Familiarization](#)
- [1.48: Time](#)

1.1: Safety

Safety is the most important element in performing duties. Obeying the rules is essential to job safety and continued employment.

Rule Updated Date

April 7, 2010

[^Top](#)

1.1.1: Maintaining a Safe Course

In case of doubt or uncertainty, take the safe course.

Rule Updated Date

April 7, 2010

[^Top](#)

1.1.2: Alert and Attentive

Employees must be careful to prevent injuring themselves or others. They must be alert and attentive when performing their duties and plan their work to avoid injury.

Rule Updated Date

April 7, 2010

[^Top](#)

1.1.3: Accidents, Injuries, and Defects

Report by the first means of communication any accidents; personal injuries; defects in tracks, bridges or signals; or any unusual condition that may affect the safe and efficient operation of the railroad. Where required, furnish a written report promptly after reporting the incident.

Rule Updated Date

April 7, 2010

[^Top](#)

1.1.4: Condition of Equipment and Tools

Employees must check the condition of equipment and tools they use to perform their duties. Employees must not use defective equipment or tools until they are safe to use. Employees must report any defects to the proper authority.

Rule Updated Date

April 7, 2010

[^Top](#)

1.2: Personal Injuries and Accidents

Rule Updated Date

April 7, 2010

[^Top](#)

1.2.1: Care for Injured

When passengers or employees are injured, do everything reasonable to care for them.

Rule Updated Date

April 7, 2010

[^Top](#)

1.2.2: Witnesses

If equipment is involved in personal injury, loss of life, or damage to property, the employee in charge must immediately secure the names, addresses and occupations of all persons involved, including all persons at the scene when the accident occurred and those that arrived soon after. The employee in charge must secure the names regardless of whether these persons admit knowing anything about the accident.

The employee in charge must also obtain the license number of nearby automobiles. When necessary, other employees can assist in obtaining this information, which must be included in reports covering the incident.

Where signaling devices are provided or a flagman is on duty, the employee in charge and assisting employees must try to determine whom, among the witnesses, can testify whether the signaling devices were functioning properly or if the flagman was performing his duties properly.

Rule Updated Date

April 7, 2010

[^Top](#)

1.2.3: Equipment Inspection

If an accident results in personal injury or death, all tools, machinery, and other equipment involved, including the accident site, must be inspected promptly by the foreman, another person in charge of the work, or other competent inspectors. The inspector must promptly forward to his manager a report of the inspection. The report must include the condition of the equipment and the names of those making the inspection.

The equipment inspected must be marked for identification and placed in custody of the responsible manager or employee until the claims department is contacted and determines disposition.

Rule Updated Date

April 7, 2010

[^Top](#)

1.2.4: Mechanical Inspection

When engines, cars or other equipment are involved in an accident that results in personal injury or death, the equipment must be inspected before it leaves the accident site.

A mechanical department employee must further inspect the equipment at the first terminal. This employee must promptly report inspection results to the proper manager.

Rule Updated Date

April 7, 2010

[^Top](#)

1.2.5: Reporting

All cases of personal injury, while on duty or on company property, must be immediately reported to the proper manager and the prescribed form completed.

A personal injury that occurs while off duty that will in any way affect employee performance of duties must be reported to the proper manager as soon as possible. The injured employee must also complete the prescribed written form before returning to service.

All cases of occupational illness must be immediately reported to the proper manager and the prescribed form completed.

Because railroads are required by Federal regulations to report injuries and occupational illnesses that meet certain medical treatment criteria, employees must report to their manager any medical treatment they receive that was directly related to their injury or illness, including any follow-up visits. Below are examples of the types of medical treatments and instructions that employee's must report to their manager if they were given in relation to an injury or occupational illness:

- Medical treatments provided or recommended
- Physical therapy or chiropractic treatments
- Prescriptions and other medications issued or recommended, including dosages
- Lost time instructions
- Work restriction instructions

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

1.2.6: Statements

Except when authorized by the proper manager:

- Information concerning accidents or personal injuries that occur to persons other than employees may be given only to an authorized representative of the railroad or an officer of the law.
- Information about the facts concerning the injury or death of an employee may be given only to a person in interest such as the injured employee, an immediate relative of the injured or deceased employee, an authorized representative of the railroad, or an officer of the law.
- Information in the files or in other privileged or confidential reports of the railroad concerning accidents or personal injuries may be given only to an authorized representative of the railroad.

Rule Updated Date

April 7, 2010

[^Top](#)

1.2.7: Furnishing Information

Employees must not withhold information, or fail to give all the facts to those authorized to receive information regarding unusual events, accidents, personal injuries, or rule violation.

Rule Updated Date

April 7, 2010

[^Top](#)

1.3: Rules

Rule Updated Date

April 7, 2010

[^Top](#)

1.3.1: Rules, Regulations, and Instructions

Safety Rules. Employees must have a copy of, be familiar with, and comply with all safety rules issued in a separate book or in another form.

General Code of Operating Rules. Employees governed by these rules must have a current copy they can refer to while on duty.

Hazardous Materials. Employees who in any way handle hazardous materials must have a copy of the instructions or regulations for handling these materials. Employees must be familiar with and comply with these instructions or regulations.

Air Brakes. Employees whose duties are affected by air brake operation must have a copy of the files and instructions for operating air brakes and train handling. Employees must know and obey these rules and instructions.

Timetable and Special Instructions. Employees whose duties are affected by the timetable and special instructions must have a current copy they can refer to while on duty.

Train Dispatchers and Control Operators. The train dispatchers and control operators must have a copy of rules and instructions for train dispatchers and control operators. They must be familiar with and obey those rules and instructions.

Rules, Regulations and Instructions. Employees must be familiar with and obey all rules, regulations, and instructions and must attend required classes. They must pass the required examinations. Examinations are required to be passed biennially or more often when necessary to ensure employees are familiar with all rules, regulations and instructions.

Explanation. Employees must ask their supervisor for an explanation of any rule, regulation, or instruction they are unsure of.

Issued, Cancelled, or Modified. Rules may be issued, canceled, or modified by track bulletin, general order, or special instructions. When there is a conflict, subdivision special instructions takes precedence over system special instructions.

Application:

Examinations are required to be passed biennially or more often when necessary to ensure employees are familiar with all rules, regulations and instructions.

Issued, Canceled, or Modified

When there is a conflict, subdivision special instructions takes precedence over system special instructions.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

1.3.2: General Orders

General Orders:

- Are numbered consecutively.
- Are issued and cancelled by the designated manager.
- Contain only information and instructions related to rules or operating practices.
- Replace any rule, special instruction, or regulation that conflicts with the general order.

Before beginning each day's work or trip, crew members and any others whose duties require, must review general orders that apply to the territory they will work on. Employees must each have a current copy of system general orders and subdivision general orders they can refer to while on duty.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

1.3.3: Superintendent Bulletins, Instructions, and Notices

Superintendent Bulletins, instructions, notices, and other information are issued and canceled by the designated manager. Before beginning each day's work or trip, crew members and any others whose duties require, must review those that apply to the territory they will work on.

Rule Updated Date

July 6, 2016

General Order

Effective Date: July 6, 2016

[^Top](#)

1.4: Carrying out Rules and Reporting Violations

Employees must cooperate and assist in carrying out the rules and instructions. They must promptly report any violations to the proper supervisor. They must also report any condition or practice that may threaten the safety of trains, passengers, or employees, and any misconduct or negligence that may affect the interest of the railroad.

Rule Updated Date

April 7, 2010

[^Top](#)

1.4.1: Good Faith Challenge

A. Right to Challenge

Federal Regulations have provisions that allow an employee the right to challenge a directive which, based upon the employee's good faith determination, would violate a railroad operating rule relating to:

- Shoving movements.
- Leaving equipment foul of an adjacent track.
or
- Handling of hand-operated switches or fixed derails.

B. Good Faith Challenge Procedure

1. An employee may inform a supervisor issuing a directive that a good faith determination has been made that the directive would violate a railroad operating rule relating to:

- Shoving movements.
- Leaving equipment foul of an adjacent track.
or
- Handling of hand-operated switches or fixed derails.

2. The supervisor will not require the employee to comply with the directive until the challenge is resolved. The supervisor may:

- Require the challenging employee to perform other tasks not related to the challenge until the challenge is resolved.
or
- Direct an employee, other than the challenging employee, to perform the challenged task before the challenge is resolved. Employee so directed will be informed of the challenge, and determine that the challenged task does not violate the rules.

C. Resolving Good Faith Challenge

1. A challenge may be resolved by one of the following:

- The supervisor's acceptance of the employee's request.
- An employee's acceptance of the directive.
- An employee's agreement to a compromise solution acceptable to the person issuing the directive.

2. If the challenge cannot be resolved because the supervisor issuing the directive has determined that the employee's challenge has not been made in good faith or there is no alternative to the direct order, the railroad will:

- Provide immediate review by at least one manager, which must not be conducted by the supervisor issuing the challenged directive or that supervisor's subordinate.
- Resolve the challenge using the same options available for resolving the challenge as the initial supervisor.

3. If the manager making the final decision concludes that the challenged directive would not cause the employee to violate any requirement of the involved rules, the reviewing manager's decision shall be final and not subject to further immediate review.

- The manager will inform the employee that Federal law may protect the employee from retaliation, if the employee's refusal to do the work is a lawful, good faith act.
- The employee making the challenge will be afforded an opportunity to document, in writing or electronically, any protest to the manager making the final decision before the employee's tour of duty is complete. The employee will be afforded the opportunity to retain a copy of the protest.

D. Request for Review and Verification of Decision

Upon written request, at the time of the challenge, the employee has the right for further review by the Designated Review Manager. Within 30 days after the expiration of the month during which the challenge occurred, the Designated Review Manager will verify the proper application of the rule in question. The verification decision shall be made in writing to the employee.

E. Employee Rights and Remedies

The Good Faith Challenge is not intended to abridge any rights or remedies available to the employee under a collective bargaining agreement or any Federal law.

Rule Updated Date

April 7, 2010

[^Top](#)

1.5: Drugs and Alcohol

The use or possession of alcoholic beverages while on duty or on company property is prohibited. Employees must not have any measurable alcohol in their breath or in the bodily fluids when reporting for duty, while on duty or while on company property.

The use or possession of intoxicants, over-the-counter or prescription drugs, narcotics, controlled substances, or medication that may adversely affect safe performance is prohibited while on duty or on company property, except medication that is permitted by a medical practitioner and used as prescribed. Employees must not have any prohibited substances in their bodily fluids when reporting for duty, while on duty, or while on company property.

Refusals to provide a test sample or interference or delay in the testing process are also treated as prohibited conduct. This also includes leaving the scene of an accident, tampering or substituting a sample.

Application:

Also refer to the UPRR Drug and Alcohol Policy which governs all employees. Access the policy by using the link:

http://home.www.uprr.com/emp/operating/op_prac/dap/index.shtml

Rule Updated Date

May 2, 2016

System Special Instructions

Effective Date: May 2, 2016

[^Top](#)

1.6: Conduct

Employees must not be:

1. Careless of the safety of themselves or others
2. Negligent
3. Insubordinate
4. Dishonest
5. Immoral
6. Quarrelsome
or
7. Discourteous

Any act of hostility, misconduct, or willful disregard or negligence affecting the interest of the company or its employees is cause for dismissal and must be reported. Indifference to duty or to the performance of duty will not be tolerated.

Rule Updated Date

April 7, 2010

[^Top](#)

1.6.1: Motor Vehicle Driving Records

A certified conductor, engineer, employee seeking initial certification or employees qualified to drive commercial motor vehicles must report any arrest, citation or conviction to an employee assistance representative at (800)779-1212, within 48 hours for:

- Operating a motor vehicle while under the influence of or impaired by alcohol or a controlled substance.
- Refusal to undergo such testing when a law enforcement official seeks to find out whether a person is operating under the influence of alcohol or a controlled substance.

State-sponsored diversion programs, guilty pleas, and completed state actions to cancel, revoke, suspend, or deny a driver's license are considered convictions as applied to this rule.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

1.6.2: Notification of Felony Convictions

The conduct of any employee leading to conviction of any felony is prohibited. Any employee convicted of a felony must notify the proper authority of that fact within 48 hours after the employee receives notice of the conviction.

Rule Updated Date

April 7, 2010

[^Top](#)

1.6.3: Notification of Deteriorating Vision or Hearing

A certified conductor, engineer or employee seeking initial certification who has knowledge that their hearing or vision has deteriorated and cannot be corrected to the minimum acceptable requirement as outlined in federal regulations (20/40 distant visual acuity, 70 degree field of vision, ability to recognize/distinguish between railroad color signals, hearing loss no greater than 40 decibels) must report that fact immediately to the proper authority or the medical department.

Note: A certified conductor, engineer or employee seeking initial certification who has knowledge that a restriction listed on their FRA Certificate has been corrected or improved to meet the minimum acceptable requirement as outlined in federal regulations must report that fact immediately to the proper authority or the medical department (402-544-5234).

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

1.7: Altercations

Employees must not enter into altercations with each other, play practical jokes, or wrestle while on duty or on railroad property.

Rule Updated Date

April 7, 2010

[^Top](#)

1.8: Appearance

Employees reporting for duty must be clean and neat. They must wear the prescribed uniform when required.

Rule Updated Date

April 7, 2010

[^Top](#)

1.9: Railroad Company

Employees must behave in such a way that the railroad will not be criticized for their actions.

Rule Updated Date

April 7, 2010

[^Top](#)

1.10: Games, Reading, or other Media

Employees on duty must not:

- Play games.
- Use personal electronic devices other than provided for in Rule 2.21 (Electronic Devices).
or
- Read magazines, newspapers, or other literature not related to their duties when:
 - o On a train or engine,
 - o Performing safety related activities,or
- o It would delay or interfere with required duties.

This does not prohibit employees from having such material enclosed in their personal luggage.

Rule Updated Date

April 1, 2015

[^Top](#)

1.11: Sleeping

Employees must not sleep while on duty, except as outlined under Rule 1.11.1(Napping). Employees reclined with their eyes closed will be in violation of this rule.

Rule Updated Date

April 7, 2010

[^Top](#)

1.11.1: Napping

TE&Y and Engineering employees, except those working in passenger or commuter service are permitted to nap while on duty when it does not cause a delay to the operations or interfere with the performance of safety-related duties, the safety of the employee, coworkers, or the public under the following conditions:

- The employee has reported on duty and completed all necessary preparations for duty including a job briefing. These duties include reviewing all general orders, track warrants, track bulletins, and all other paperwork.
- The employee responsible for notifying a napping employee work is ready to proceed should allow at least 15 minutes for the napping employee to recover from grogginess which may occur after awaking. Another job briefing must not occur during the 15 minute recovery period, but must take place prior to proceeding with work to ensure all employees are prepared to perform service after the operational delay has concluded.
- The napping employee is relieved of all duties during the napping period. Employees being transported to or from their job duties may nap when no safety sensitive duties are being performed by another employee.

Transportation Employee Requirements:

- When napping in a designated napping facility, one member of the assigned crew or work team must remain awake at all times to perform any work related duties including ensuring that all employees are ready to commence work promptly after the delay has ended. If the entire crew requests time to nap, the supervisor on duty may grant the request if doing so does not jeopardize the safety of the employees, the public, or train operations and will be responsible for ensuring the crew is ready to commence work promptly after the delay has ended.
- A job briefing must be conducted to review the conditions of the napping period and to reach agreement as to who will nap and who must remain awake. The employee's supervisor or co-worker has the right and responsibility to refuse to allow another employee to take a nap if doing so could jeopardize safety or cause undue delay to operations.
- Before napping is allowed **on a locomotive:**
 1. The employee in charge of the locomotive controls must:
 - Make at least a 10 pound brake pipe reduction.
 - Place generator field switch in the "OFF" position.
 - Center and remove the reverser, if removable.
 2. The employee who is to remain awake must remain on the locomotive while others on the locomotive are napping, except when inspecting passing trains.

Engineering Employee Requirements:

- Employee must request a nap from their immediate supervisor and identify the location where the nap is to take place. The supervisor may grant the request if doing so does not jeopardize the safety of employees, the public or train operations. In no case may the employee nap foul of any track or in an area where equipment is operating.
- Before napping is allowed **on maintenance of way equipment:** The operator of the equipment must ensure the equipment is properly tied down, secured against movement and adequately ventilated.
- When on a road in a company vehicle, at least one employee in addition to the employee driving the vehicle must stay awake to help the driver identify potential hazards ahead.

Rule Updated Date

May 2, 2016

System Special Instructions

Effective Date: May 2, 2016

[^Top](#)

1.12: Weapons

While on duty or on railroad property, employees must not have firearms or other deadly weapons, including knives with a blade longer than 3 inches. However, railroad police are authorized to possess firearms in the course of their work.

Application:

Also refer to UPRR Policy to Address Violence & Abusive Behavior in the Work Place. Access the policy by using the link: <http://home.www.uprr.com/emp/ec/policy/violence.shtml>

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

1.13: Reporting and Complying with Instructions

Employees will report to and comply with instructions from supervisors who have the proper jurisdiction. Employees will comply with instructions issued by managers of various departments when the instructions apply to their duties.

Rule Updated Date

April 7, 2010

[^Top](#)

1.14: Employee Jurisdiction

Employees are under the jurisdiction of the supervisors of the railroad they are operating on. When operating on another railroad, unless otherwise instructed, employees will be governed by:

- Safety rules, air brake and train handling rules and hazardous materials instructions of the railroad they are employed by.
- The operating rules, timetable and special instructions of the railroad they are operating on.

Rule Updated Date

April 7, 2010

[^Top](#)

1.15: Duty - Reporting or Absence

Employees must report for duty at the designated time and place with the necessary equipment to perform their duties. They must spend their time on duty working only for the railroad. Employees must not leave their assignment, exchange duties, or allow others to fill their assignment without proper authority.

Continued failure by employees to protect their employment will be cause for dismissal.

Rule Updated Date

April 7, 2010

[^Top](#)

1.16: Subject to Call

Employees subject to call must indicate where they can be reached and must not be absent from their calling place without notifying those required to call them.

Rule Updated Date

April 7, 2010

[^Top](#)

1.17: Hours of Service Law

Employees must be familiar and comply with the requirements of the federal hours of service law. Employees are expected to use off-duty time so they are prepared for work.

If an employee is called to report for duty before legal off-duty time has expired, before accepting the call to work the employee must notify the individual making the call that off-duty time has not expired.

A. Notification

When communication is available, employees must notify the train dispatcher or another authority of the time the law requires them to be off duty. Employees must provide notification early enough that they may be relieved, or transportation provided, before they exceed the hours of service.

B. Exceeding the Law

Employees must not exceed the hours of service law without proper authority. However, they must not leave trains, engines, or cars on the main track without proper protection. Employees must secure trains properly and, if possible, before they exceed the hours of service. Except as provided by this paragraph, employees are then relieved of all duties.

Rule Updated Date

April 7, 2010

[^Top](#)

1.18: Unauthorized Employment

Employees must not engage in another business or occupation that would create a conflict of interest with their employment on the railroad or would interfere with their availability for service or the proper performance of their duties.

Rule Updated Date

April 7, 2010

[^Top](#)

1.19: Care of Property

Employees are responsible for properly using and caring for railroad property. Employees must return the property when the proper authority requests them to do so. Employees must not use railroad property for their personal use.

Rule Updated Date

April 7, 2010

[^Top](#)

1.20: Alert to Train Movement

Employees must expect the movement of trains, engines, cars or other movable equipment at any time, on any track and in either direction.

Employees must not stand on the track in front of an approaching engine, car or other moving equipment.

Employees must be aware of the location of structures or obstructions where clearances are close.

Rule Updated Date

April 7, 2010

[^Top](#)

1.21: Occupying Roof

Employees whose duties require them to occupy the roof of a car or engine must do so only with proper authority and when the equipment is standing.

Rule Updated Date

April 7, 2010

[^Top](#)

1.22: Unauthorized Persons on Equipment

Do not permit unauthorized persons on equipment.

Promptly notify the train dispatcher or supervisor when unauthorized persons or emergency responders are observed on, under or between railroad equipment.

When made aware of emergency responders on, under or between railroad equipment, train dispatcher or supervisor must arrange for a qualified employee to inspect all affected equipment to verify proper securement as soon as practical.

Rule Updated Date

April 1, 2015

[^Top](#)

1.23: Altering Equipment

Without proper authority, employees must not alter, nullify, change the design of, or in any manner restrict or interfere with the normal function of any device or equipment on engines, cars, or other railroad property, except in the case of an emergency. Employees must report to the proper supervisor changes made in an emergency.

Rule Updated Date

April 7, 2010

[^Top](#)

1.23.1: Locomotive-Mounted Safety Devices

A. Tampering with or Disabling

Employees are prohibited from:

- Tampering with or disabling any locomotive mounted safety device.
- Operating or failing to take appropriate action to prevent a train from being operated when the controlling locomotive of that train is equipped with a disabled safety device, except as provided in part C of this rule.

Safety devices include crew alertness devices, automatic cab signal devices, automatic train control/train stop devices, and audio, video and other recording devices concerning operations.

B. Inspection of Locomotive-Mounted Safety Devices

The engineer must make a visual inspection of accessible safety devices in the controlling locomotive cab, nose or vestibule, or in the cab control car when taking charge of a locomotive or train to ensure that:

- Nothing interferes with their intended function.

- Switches and breakers controlling the devices are in proper position.
- Seals, as appropriate, are properly applied.
- There is no apparent damage to the device.

If any exceptions are detected, immediately report them to the train dispatcher.

C. Operation of Trains with Defective or Disabled Locomotive-mounted Safety Devices

Locomotives or cab control cars with defective or disabled safety devices must not be operated as the controlling unit unless:

- Provided for in the operating rules,
or
- Authorized by the train dispatcher.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

1.24: Clean Property

Railroad property must be kept in a clean, orderly, and safe condition. Railroad buildings, facilities, or equipment must not be damaged or defaced. Only information authorized by the proper manager or required by law may be posted on railroad property.

Rule Updated Date

April 7, 2010

[^Top](#)

1.25: Credit or Property

Unless specifically authorized, employees must not use the railroad's credit and must not receive or pay out money on the railroad account. Employees must not sell or in any way get rid of railroad property without proper authority. Employees must care for all articles of value found on railroad property and promptly report the articles to the proper authority.

Rule Updated Date

April 7, 2010

[^Top](#)

1.26: Gratuities

Employees must not discriminate among railroad customers. Employees must not accept gifts or rewards from customers, suppliers, or contractors of the railroad unless authorized by the proper authority.

Rule Updated Date

April 7, 2010

[^Top](#)

1.27: Divulging Information

Employees who make up, handle, or care for any of the following must not allow an unauthorized person to access them or disclose any information contained in them:

- Correspondence
- Reports
- Books
- Bills of lading
- Waybills
- Tickets
- Statistics

Employees are responsible for all activity with their assigned User ID's and are responsible for protecting the confidentiality of information accessed. Sharing passwords is prohibited. Unauthorized use of another person's User ID and password is prohibited.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

1.28: Fire

Employees must take every precaution to prevent loss and damage by fire.

Employees must report promptly to the train dispatcher any fires seen on or near the right of way, unless the fires are being controlled. If there is danger of the fire spreading to a bridge or other structure, crew members must stop their train and help extinguish the fire.

Cause of fire, if known, must be promptly reported.

Rule Updated Date

April 7, 2010

[^Top](#)

1.29: Avoiding Delays

Crew members must operate trains and engines safely and efficiently. All employees must avoid unnecessary delays.

When possible, train or engine crews wanting to stop the train to eat must ask the train dispatcher at least one hour and thirty minutes before the desired stop.

Rule Updated Date

April 7, 2010

[^Top](#)

1.30: Riding Engine

When possible, crew members on the head end of freight trains must ride in the control compartment of the engine.

When riding on the head end, the conductor will ride in the control compartment.

Rule Updated Date

April 7, 2010

[^Top](#)

1.31: Repairs to Foreign Cars

Crew members who repair foreign cars must report the repairs on the prescribed form.

Rule Updated Date

April 7, 2010

[^Top](#)

1.32: Overheated Wheels

When overheated wheels are found on a train, the train must be stopped and held a minimum of 10 minutes to allow the heat to equalize through the wheel.

Rule Updated Date

April 7, 2010

[^Top](#)

1.33: Inspection of Freight Cars

When personnel are not on duty primarily to inspect freight cars, each car placed in the train may be moved after it receives a safety inspection as follows:

- Cars must be checked for:
 - Leaning.
 - Sagging.
 - Improper position on the truck.
 - Objects hanging or dragging from the car or extending from the side.
 - Insecurely attached doors.
 - Broken or missing safety appliances.
 - Contents leaking from placarded hazardous material car.
 - Insecure coupling device.
 - Overheated wheel or journal.
 - Broken or cracked wheel.
 - Brake that fails to release.
 - Staff type brake not in fully raised position.
 - Any apparent hazard that could cause an accident
- Open top loads, including trailers and containers on flat cars, must be loaded safely.
- If width or height approaches clearance restrictions, movement must be cleared with the proper authority.

A freight car with any defect that makes movement unsafe must be corrected or set out of the train. When a defect is discovered enroute, note the type of defect on proper tag and attach a tag on each side of the car.

A freight car with three bad order tags indicating that the car is safe to move may be moved to the nearest car repair point. The conductor will remove one bad order tag from the side with two tags. The conductor will use the written information from the tag to inform other crew members of the restrictions.

Application:

1. When a defect is discovered, note the type of defect on proper tag and attach a tag on each side of the car.
2. Open top rail equipment loaded with wood chips or bark must be covered with approved netting.
3. When applicable, inspections required by Hazardous Materials Instructions must be completed.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

1.34: Flat Spots

If a wheel on a piece of equipment has a flat spot more than 2-1/2 inches long, or if the wheel has adjoining flat spots that are each at least 2 inches long, the equipment must not be moved faster than 10 MPH. Such equipment in a train must be set out at the first available point.

Rule Updated Date

April 7, 2010

[^Top](#)

1.35: Dump Doors

Be sure dump doors on cars are closed after a load is dumped. If cars must be moved short distances with the dump doors open, make sure the doors and chains will clear tracks and crossings.

Rule Updated Date

April 7, 2010

[^Top](#)

1.36: Excessive Dimension Loads

Place excessive dimension loads on or near the head end of trains.

Instructions will be issued to trains handling excessive dimension loads. If no instructions have been issued regarding handling the car, the conductor will immediately notify the train dispatcher.

Crew members handling excessive dimension equipment must ensure that the equipment will clear nearby objects, including equipment on adjacent tracks. If the train cannot reach a point with enough clearance, crew members must make sure protection is provided against movements on adjacent tracks.

Rule Updated Date

April 7, 2010

[^Top](#)

1.37: Open Top Loads

Flat cars, open top cars, and open top TOFCs/COFCs with loads that are likely to shift must not be placed in trains next to the following if train length and makeup permit:

- Occupied outfit car

- Passenger car
- Occupied locomotive or occupied caboose.
- Shipment of automotive vehicles and machinery that is not fully enclosed

This restriction does not apply to cars with permanent tie-downs.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

1.38: Shipments Susceptible to Damage

Shipments with painted or finished surfaces susceptible to damage, such as automobiles, trucks, tractors, combines, and other similar equipment or machinery, must not be placed closer than the fifth car behind open top cars loaded with commodities such as coal, sand, gravel, lime, soda ash, etc. subject to wind, vapor or fume action on adjacent cars. Exceptions include shipments susceptible to damage that are:

- Loaded in cars that fully enclose the shipments.
or
- Fully protected by a covering.

An open top car loaded with sand, gravel, lime, soda ash, etc., subject to wind, vapor, or fume action in other than a solid unit train must not be placed immediately ahead of an occupied caboose.

Rule Updated Date

April 7, 2010

[^Top](#)

1.39: Accuracy of Speed Indicator

The engineer must verify speed indicator accuracy as soon as possible after taking charge of the engine. If the speed indicator is not accurate to within 3 MPH plus or minus at speeds of 10 to 30 MPH and to within 5 MPH plus or minus at speeds above 30 MPH, the engineer must immediately report the variance to the train dispatcher.

Rule Updated Date

April 7, 2010

[^Top](#)

1.40: Reporting Engine Defects

The engineer will report any engine defect on the proper form and notify the relieving engineer, when needed.

Rule Updated Date

April 7, 2010

[^Top](#)

1.41: Engines Coupled to Occupied Passenger Cars

Engines coupled to equipment that includes occupied passenger cars must not be left without an authorized employee in charge.

Rule Updated Date

April 7, 2010

[^Top](#)

1.42: Trains Detoured

When trains are detoured over another railroad, the engineer of the detoured train will operate the engine, unless otherwise approved by a manager of the railroad the train is being detoured over.

The pilot will inform the engineer of speed restrictions, signals, sidings, etc. to make sure the train detours over the railroad safely.

Rule Updated Date

April 7, 2010

[^Top](#)

1.43: Stopped in Tunnels

A. Engine or Train Stopped in Tunnel

When an engine is stopped in a tunnel and cannot move promptly, crew members must:

1. Shut down diesel engine at once.
2. Shut down Waukesha or similar type engine.
3. Make a full service air brake application.
4. Apply hand brakes to prevent movement in case the air brakes leak off.

B. Passenger Train Stopped in Tunnel or Deep Snow

Crew members of a passenger train stopped in a tunnel or deep snow must:

1. Shut off any air circulating systems including:

- a. Air conditioning
- b. Ice Machines
- c. Generators

2. Shut air intake shutters.

3. Turn off blower fans.

C. Notification if Stopped in Tunnel or Deep Snow

The train dispatcher should be notified immediately so that proper arrangements can be made to protect persons and equipment.

D. When These Requirements Will Not Apply

These requirements will not apply if air currents carry the exhaust gases away from the train. Safety of passengers and crew members must be the first consideration.

Rule Updated Date

April 7, 2010

[^Top](#)

1.44: Duties of Train Dispatchers

Train dispatchers supervise train movement and any employees connected with that movement.

Rule Updated Date

April 7, 2010

[^Top](#)

1.45: Duties of Control Operators and Operators

Control Operators and operators are under the direction of the train dispatcher when their duties concern handling track warrants, track bulletins, lineups, the movement of trains, and any other instructions issued by the train dispatcher.

Rule Updated Date

April 7, 2010

[^Top](#)

1.46: Duties of Yardmasters

The yardmaster is responsible for and shall directly supervise yard crews, clerks, and all other employees working in the yard. The yardmaster must see that they work in a safe, efficient, and economical manner, according to the rules, regulations, and instructions of the railroad. Yardmasters must ensure the prompt and regular movement of cars, especially the proper makeup of trains and their movement into and out of the yard.

At locations where yardmasters are on duty, employees in train, engine, and yard service must comply with the yardmaster's instructions. At locations where no yardmaster is on duty, these employees will work according to the instructions of designated employees.

Rule Updated Date

April 7, 2010

[^Top](#)

1.47: Duties of Crew Members

The conductor and the engineer are responsible for the safety and protection of their train and observance of the rules. They must ensure that their subordinates are familiar with their duties, determine the extent of their experience and knowledge of the rules, and instruct them, when necessary, on how to perform their work properly and safely. If any conditions are not covered by the rules, they must take precautions to provide protection.

When the conductor is not present, other crew members must obey the instructions of the engineer concerning rules, safety, and protection of the train.

A. Conductor Responsibilities

1. Supervises the Operation

The conductor supervises the operation and administration of the train (if trains are combined with more than one conductor on board, the conductor with the most seniority takes charge). All persons employed on the train must obey the conductor's instructions, unless the instructions endanger the train's safety or violate the rules. If any doubts arise concerning the authority for proceeding or safety, the conductor must consult with the engineer who will be equally responsible for the safety and proper handling of the train.

2. Restrictions on Equipment

The conductor must advise the engineer and train dispatcher of any restriction placed on equipment being handled.

3. Calling Attention to Restrictions

The conductor must remind the engineer that the train is approaching an area restricted by:

- Limits of authority.
- Track warrant.
- Radio speed restriction.

or

- Track bulletin.

The conductor must inform the engineer after the train passes the last station, but at least 2 miles from the restriction.

4. Freight Conductors

Freight conductors are responsible for the freight carried by their train. They are also responsible for ensuring that the freight is delivered with any accompanying documents to its destination or terminals. Freight conductors must maintain any required records.

5. Conductor Report Form

UPRR crews operating on a foreign railroad are required to properly complete a UPRR form or a foreign railroad form as required by UPRR rules. Foreign railroad crews operating on the UPRR are governed by that railroad's rule concerning awareness forms.

"Conductor Report Form" (FORM 20849) must be maintained as follows (**also see Item 10-K**):

a. Road freight conductors, including locals and switchers but not including yard or passenger conductors, are required to complete the Conductors Report. However, yard conductors performing road service on the main track (transfer, relief service, etc.) will be required to complete the Conductors Report Form.

Remote control operators are not required to maintain a Conductor Report Form except when required by Item 10-K.

The report will include:

- The name of other than Clear wayside signals, speed of the train as head end passes and, as appropriate, a "Z" or "X".
- After passing an Approach or Diverging Approach signal the next wayside signal must be entered regardless of signal indication including the speed of the train (even if the signal is Clear).
- Train defect detector results from all detectors (except "%" detectors) and mile post. "X" will identify in cab communication of results.
- Approaching temporary speed restrictions that affect the train. (Enter speed of restriction on form).
- Approaching the end of authority unless additional authority has been granted to continue on the main track. If the additional authority contains a Box 2 (after arrival) it must be included on the form.
- Train delays.
- Restricted Speed documentation. Every 2 miles that the train is operating at Restricted Speed, enter mile post location, time, train speed, a "Z" to indicate that the information was communicated between crew members and amount of air brake application if any, (None, Minimum, 10#, etc.).
- On the main track in non-signalized territory, the time, train's milepost location, and speed every 5 miles and record an "X" to indicate the information was communicated between crew members. (Comply with bullet 7 if operating at Restricted Speed).
- On Subdivisions with a CG location (as listed in SSI Item 8), record the time and speed of the train as the train crests the grade. Enter an "X" to indicate the information was communicated between crew members.

Entries will be made when head end of train is at or about the mile post location of required entry. Entries will be sequential and legible.

EXAMPLES:

LOCATION	SIGNAL NAME OR TDD ANNOUNCEMENT	TIME	COMMENTS & DELAYS
----------	---------------------------------------	------	-------------------

87.3	AA	0535	X - 52 MPH
89.1	A	0543	Z - 33 MPH
Y091	S	0558	X - Stop - 8" delay
92.5	RP	0617	Z - 12 MPH
94.5	RS	0625	Z - 8 MPH - None
101.3	TSR	0643	Z - 30 MPH
103.3	ND	0657	X
115.0	XH	0715	Z - 15 MPH
129.0		0755	PU - 8 cars - 30"
135.0	EA	0840	Z

Note :

1. Abbreviations may be used. e.g. (Advance Approach = AA; Diverging Clear = DC; Diverging Approach = DA; Approach = A; Approach Diverging = AD; Restricting = R; Restricted Proceed = RP; Stop = S; Speed Restriction (temporary) = TSR; End of Authority = E/A; Crossing Restrictions (received enroute) = XG, XH, XS; Cab Red Zone = Z; In-Cab Communication = X; ND = No Defects; Restricted Speed = RS.

2. Enter MP location where Cab Red Zone begins and/or in-cab communication takes place when other entries are required. However, entry may be made with signal entry when passing signal.

3. Enter delays.

b. The conductor's report must be completed (and signed on the last page to signify report is complete and accurate) on each trip or tour of duty. If the form is not available, record the information as required. Reports of the last 5 round trips (a minimum of 5 days) must be kept in your possession while on duty, and presented to a Manager upon request.

c. Do not erase information entered on the form. If an error is made, cross out the entry and write the correct entry.

d. Conductors with a valid Class 1 "Certificate to Operate Locomotives": When conductors with a valid Class 1 "Certificate to Operate Locomotives" are allowed to operate the engine the time and location (beginning and ending) will be noted on the conductors report form. Entries on the form will not be required during this time period except entries required by Item 10 K.

B. Engineer Responsibilities

1. Operating the Engine

The engineer is responsible for safely and efficiently operating the engine. Crew members must obey the engineer's instructions that concern operating the engine. A student engineer or other qualified employee may operate the engine only under the direct and immediate supervision of the engineer. The engineer must closely monitor the employee's performance. The engineer must be in a position to take immediate action as necessary. Employee that operates an engine must have a current certificate in their possession.

2. Special Handling

The engineer must check with the conductor to determine if any cars or units in the train require special handling.

C. All Crew Members' Responsibilities

1. Crew Members in Control Compartment

Crew members in the control compartment must communicate to each other any restrictions or other known conditions and required actions that affect the safe operation of their train sufficiently in advance of such condition to allow the engineer to take proper action. If proper action is not being taken, crew members must remind engineer of such condition and required action.

Crew members in the control compartment must be alert for signals. Crew members must:

- Communicate clearly to each other the name of signals affecting their train as soon as signals become visible or audible.
- Continue to observe signals and announce any change of aspect until the train passes the signal.
- Communicate clearly to each other the speed of the train as it passes a signal with an indication other than Clear.
- Immediately remind the engineer of the rule requirement if the signal is not complied with.

2. Radio Transmission

Except when switching a crew member must transmit the engine number, direction, location and signal name (include track number in multiple main track CTC territory) when the head end of the train:

A. Passes a signal that requires:

- Being prepared to Stop at the next signal.
- Being prepared to pass next signal at Restricted Speed.
or
- Restricted speed.

B. Stops for a signal that requires stopping.

However, instructions may be issued to identify locations where this radio transmission is not required.

3. Proper Action

If engineer and/or conductor fail to comply with a signal indication or take proper action to comply with a restriction or rule, crew members must immediately take action to ensure safety, using the emergency brake valve to stop the train, if necessary.

4. Performing Work

Before work is performed at a location, the crew must discuss how the work will be performed, which switches/derails will be used, what method will be used to pass signals, close clearances and any other safety related concerns. When work is completed, the crew will confirm that work was completed as planned, switches and derails are in proper position and any unforeseen safety concerns are properly reported.

Rule Updated Date

May 2, 2016

System Special Instructions

Effective Date: May 2, 2016

[^Top](#)

1.47.1: Cab Red Zone

During a Cab Red Zone (CRZ), an environment must be created in the locomotive control compartment that focuses exclusively on controlling the train, verbally communicating restrictions, and proper application of the rules. The conductor must be in the control compartment unless required to perform other duties (i.e. to operate switches, be at a road crossing, passenger train duties, etc.).

A Cab Red Zone exists during critical times such as:

- Operating at Restricted Speed. (Does not apply when switching.)
- Operating on a signal that requires the train to:
 - Be prepared to Stop at the next signal.
 - or
 - Pass the next signal at Restricted Speed.
- Copying mandatory directives.
- Approaching a Form B restriction.
- Approaching a temporary speed restriction that affects the train.
- Approaching the end of the train's authority.

The following restrictions or conditions are required during a Cab Red Zone:

- Cab communication is restricted to immediate responsibilities for safe train operation.
- Radio communication with the dispatcher or other employees must be limited to the train's immediate movement or conditions that affect the safety of trains.
- A crew member other than the employee operating the controls will be required to handle radio communications when that crew member is in the control compartment.
Exception: Rule 33.6.1 (Operating Responsibilities with Manned Helper.)
- If proper action is not being taken, crew members must remind each other of the Cab Red Zone and/or take appropriate action to stop the train.

Application: As contained within this rule, approaching is defined as two miles from the restriction or end of the train's authority.

Rule Updated Date

May 2, 2016

System Special Instructions

Effective Date: May 2, 2016

[^Top](#)

1.47.2: Training and Familiarization

Employees assigned to a position for the purpose of training or familiarization must be under the direct and immediate supervision of a qualified employee at all times. The qualified employee must closely monitor the employee's performance and must be in a position to take immediate action as necessary. Any employee requiring certification must have a current certificate in his possession.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

1.48: Time

While on duty, crew members must have a watch. Other employees must have access to a watch or clock.

The watch or clock must:

- Be in good working condition and reliable.
- Display hours, minutes, and seconds.
- Not vary from the correct time by more than 30 seconds.
- Be compared with the time source designated in special instructions.

Rule Updated Date

April 7, 2010

[^Top](#)

[Union Pacific Rules](#)

UPRR - General Code of Operating Rules

2.0: RAILROAD RADIO AND COMMUNICATION RULES

Chapter Introduction

Change Chapter 2.0 title to read:

Railroad Radio and Communication Rules

- [2.1: Transmitting](#)
- [2.2: Required Identification](#)
- [2.3: Repetition](#)
- [2.4: Ending Transmission](#)
- [2.5: Communication Redundancy](#)
- [2.6: Communication Not Understood or Incomplete](#)
- [2.7: Monitoring Radio Transmissions](#)
- [2.8: Acknowledgment](#)
- [2.9: Misuse of Radio Communications](#)
- [2.10: Emergency Calls](#)
- [2.11: Prohibited Transmissions](#)
- [2.12: Fixed Signal Information](#)
- [2.14: Transmission of Mandatory Directives](#)
- [2.14.1: Verbally Transmitting and Repeating Mandatory Directives](#)
- [2.15: Phonetic Alphabet](#)
- [2.16: Assigned Frequencies](#)
- [2.17: Radio Testing](#)
- [2.18: Malfunctioning Radio](#)
- [2.19: Blasting Operations](#)
- [2.20: Internal Adjustments](#)
- [2.21: Electronic Devices](#)

2.1: Transmitting

Any employee operating a radio must do the following:

- Before transmitting, listen long enough to make sure the channel is not being used.
- Give the required identification
- Not proceed with further transmission until acknowledgment is received .

Application:**Normal Dispatcher Call-in Procedure**

To contact the train dispatcher from the field:

1. Ensure that you are on the correct dispatcher radio channel for the area you are in. The radio channel is identified in timetable subdivision instructions under Radio Display (SI-RD).
2. On the radio key pad, dial "*" plus the 2-digit code for the dispatcher you wish to call. (For example, "*20").

Note: After dialing the "*XX" digits, you should receive an acknowledgment tone on your radio indicating the call-in has been detected and processed. If you do not hear the acknowledgment tone you will need to re-dial the code.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

2.2: Required Identification

Employees transmitting or acknowledging a radio communication must begin with the required identification. The identification must include the following in this order:

- For base or wayside stations:
 - Name or initials of the railroad
 - Name and location or other unique designation
- For mobile units:
 - Name or initials of the railroad
 - Train name (number), engine number, or words that identify the precise mobile unit.

If communication continues without interruption, repeat the identification every 15 minutes.

Short Identification

After making a positive identification for switching, classification, and similar operations within a yard, fixed and mobile units may use a short identification after the initial transmission and acknowledgment.

Application:

During switching operations, short identification must be unique enough to ensure no misunderstanding as to whom the communication is intended for or could be misinterpreted. Job numbers alone could be misinterpreted as car counts, track number or other equipment etc. "10 back up 5" must not be used. Instead use "Job 10 back up 5 cars; Yard Job 10 back up 5 cars" or "DY10 back up 5 cars".

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

2.3: Repetition

An employee who receives a transmission must repeat it to the person transmitting the message, except when the communication:

- Concerns yard switching operations.
- Is a recorded message from an automatic alarm device.
or
- Is general and does not contain any information, instruction, or advice that could affect the safety of a railroad operation.

When a mandatory directive or instruction concerning train movement has been repeated correctly, the repeat must be acknowledged as correct.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

2.4: Ending Transmission

Employees using a radio for transmissions must state to the employee receiving the transmission the following as it applies to indicate the communication has ended or is completed:

"OVER" - when a response is expected

or

"OUT" preceded by required identification - when no response is expected.

However, these requirements do not apply to yard switching operations.

Rule Updated Date

April 7, 2010

[^Top](#)

2.5: Communication Redundancy

The controlling unit of any train that requires an air brake test must be equipped with an operative radio, unless relieved by Rule 2.18 (Malfunctioning Radio). In addition, these trains must have a second means of communication, which may include:

- An operative radio on any unit in the consist.
- A portable radio
or
- Other wireless communication device.

Rule Updated Date

April 7, 2010

[^Top](#)

2.6: Communication Not Understood or Incomplete

An employee who does not understand a radio communication or who receives a communication that is incomplete must not act upon the communication and must treat it as if it was not sent.

<p>EXCEPTION: An employee who receives information that may affect the safety of employees or the public or cause damage to property must take the safe course. When necessary, stop movement until the communication is understood.</p>

Rule Updated Date

April 7, 2010

[^Top](#)

2.7: Monitoring Radio Transmissions

Radios in attended base stations or mobile units must be turned on to the appropriate channel with the volume loud enough to receive communications. Employees attending base stations or mobile units must acknowledge all transmissions directed to the station or unit.

Rule Updated Date

April 7, 2010

[^Top](#)

2.8: Acknowledgment

An employee receiving a radio call must acknowledge the call immediately unless doing so would interfere with safety.

Rule Updated Date

April 7, 2010

[^Top](#)

2.9: Misuse of Radio Communications

Employees must not use radio communication to avoid complying with any rule.

Rule Updated Date

April 7, 2010

[^Top](#)

2.10: Emergency Calls

Emergency calls will begin with the words "Emergency, Emergency, Emergency". These calls will be used to cover initial reports of hazardous conditions which could result in death or injury, damage to property or serious disruption of railroad operations such as:

- Derailments
- Collisions
- Storms
- Washouts
- Fires
- Track obstructions
- or
- Emergency brake applications.

In addition, emergency calls must be made for the following:

- Overrunning limits of authority
- or
- Overrunning Stop indications.

Emergency calls must contain as much complete information on the incident as possible.

All employees must give absolute priority to an emergency communication. Unless they are answering or aiding the emergency call, employees must not transmit until they are certain no interference will result.

Application:

Emergency Call-in Procedure

The Emergency call-in code is "911" throughout the entire UPRR system. To contact the train dispatcher in case of an emergency:

1. Ensure that you are on the dispatcher's radio channel for the area you are in. The radio channel is identified in timetable subdivision instructions under Radio Display (SI-RD).

2. Dial DTMF digits "911" on the radio key pad.

Note: After dialing the "911" digits, you should receive an acknowledgment tone on your radio indicating the emergency call-in has been detected and processed. If you do not hear the acknowledgment tone you will need to resend the "911" code.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

2.11: Prohibited Transmissions

Employees must not transmit a false emergency or an unnecessary or unidentified communication. Employees must not use indecent language over the radio. Employees must not reveal the existence, contents, or meaning of any communication (except emergency communications) to persons other than those it is intended for, or those whose duties may require knowing about it.

Rule Updated Date

April 7, 2010

[^Top](#)

2.12: Fixed Signal Information

Employees must not use the radio to give information to a train or engine crew about the name, position, aspect, or indication displayed by a fixed signal, unless the information is given between members of the same crew or the information is needed to warn of an emergency.

Rule Updated Date

April 7, 2010

[^Top](#)

2.14: Transmission of Mandatory Directives

When transmitted by radio, mandatory directives must conform to applicable operating rules and the following:

- The train dispatcher must state which mandatory directive will be transmitted.
- The employee must inform the train dispatcher when ready to copy stating the employee's occupation (ex. conductor, engineer, foreman, maintainer), name and location on the main track or where the main track will be entered. An employee operating the controls of a moving engine may not copy mandatory directives. In addition, mandatory directives must not be transmitted to the crew of a moving train if the conductor, engineer or train dispatcher feels that the transmission could adversely affect the safe operation of the train.
- The employee receiving a mandatory directive must copy it in writing using the format outlined in the operating rules.
- Before a mandatory directive is acted upon, the conductor and engineer must each have a written copy and each crew member must read and understand it.
- When transmitting a track restriction directly to a train, the restriction will be issued using the following format: (Train ID) do not exceed (speed) between (location) and (location) (add track when necessary). If no flags are displayed, the words "No flags are displayed" will be added to the format.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

2.14.1: Verbally Transmitting and Repeating Mandatory Directives

When transmitting and repeating mandatory directives, numbers must be spoken by digit (zero, one, two, three, etc.). However, exact multiples of hundreds and thousands may be stated as such (600 = six hundred). A decimal point must be spoken as "point", "dot", or "decimal", and a hyphen must be spoken as "dash".

Rule Updated Date

January 6, 2016

System Special Instructions

Effective Date: May 2, 2016

[^Top](#)

2.15: Phonetic Alphabet

If necessary, a phonetic alphabet (Alpha, Bravo, Charlie, etc.) will be used to pronounce clearly any letter used as an initial, except initial letters of the railroads.

Rule Updated Date

April 7, 2010

[^Top](#)

2.16: Assigned Frequencies

The railroad must authorize any radio transmitters used in railroad service. Radio transmitter must operate on frequencies the Federal Communications Commission assigned the railroad. Employees are prohibited from using other transmitters or railroad frequencies not assigned to that particular territory.

Rule Updated Date

April 7, 2010

[^Top](#)

2.17: Radio Testing

Test radios to be used as soon as possible before beginning of work assignment.

The radio test must include an exchange of voice transmissions with another radio. The test must confirm the quality of the radio's transmission.

Rule Updated Date

April 7, 2010

[^Top](#)

2.18: Malfunctioning Radio

Malfunctioning radios must not be used. As soon as possible, notify each crew member and the train dispatcher or other affected employees that the radio is not working.

If a radio fails on the controlling locomotive enroute, the train may continue until:

- The next calendar day inspection
- **OR**
- The nearest forward point where the radio can be repaired or replaced, whichever occurs first.

Rule Updated Date

April 7, 2010

[^Top](#)

2.19: Blasting Operations

Employees must not operate radio transmitter located less than 250 feet from blasting operations.

Rule Updated Date

April 7, 2010

[^Top](#)

2.20: Internal Adjustments

Employees are prohibited from making internal adjustments to a railroad radio unless they are specifically authorized by the FCC or hold a current Certified Technicians Certificate. Employees authorized to make adjustments must carry their FCC operator license, Certified Technicians Certificate, or verification card while on duty.

Rule Updated Date

April 7, 2010

[^Top](#)

2.21: Electronic Devices

The restrictions in this rule apply to use of personal and railroad-supplied electronic devices by railroad operating employees and does not affect the use of railroad radios under FRA regulations.

PROHIBITED USE:

A railroad operating employee shall not use an electronic device while on duty if that use would interfere with the performance of safety-related duties. Electronic Devices must not be used to verbally obtain or release a mandatory directive when radio communication is available.

A. Personal Electronic Devices:

Devices must be powered off with any earpiece removed from the ear, and properly stowed while on duty.

Except as described in Sections C and D below, use by any crew member in the cab of a controlling locomotive is prohibited when:

- On a moving train.
- Any member of the crew is on the ground or on moving equipment.
- Any railroad employee is assisting in preparation of the train, engine or on-track equipment for movement.

B. Railroad-Supplied Electronic Devices:

Unless required to be powered on for purposes of timely, automated updating or transmission of information, railroad-supplied electronic devices must be powered off with any earpiece removed from the ear, and stowed when not in use.

Crew members authorized to use railroad-supplied electronic devices may use such devices when:

- A job briefing is held and all crewmembers agree the device is safe to use.

- Not on a moving train.
- The crewmember using the device is not fouling the track.

Note: For Work Order Reporting Devices, refer to System Special Instructions Item 15.

C. Limited Use Permitted:

After conducting a safety briefing with all crew members and agreeing the limited use of the device is safe, the use of an electronic device is permitted if necessary to respond to an emergency situation involving the operation of the railroad, to respond to an emergency encountered while on-duty, or necessary due to a radio malfunction or as follows:

1. **Railroad-Supplied Device:** may be used by a crew member for exchange of work related information during train operations with railroad supervisors, dispatchers, customers, NCSC, or customer service employees.
2. **Digital Storage and Display Function:** may be used to refer to a railroad rule, special instruction, timetable, or other directive if the wireless capability of the device is disabled.
3. **Voice Communication:** permitted on the condition that the device must be turned off as soon as the call is completed.
4. **Camera:** may be used to take a photograph of a safety hazard or a violation of a rail safety law, regulation, order, or standard, provided that:
 - The device is a personal stand alone camera. NOTE: A camera that is part of a cell phone or other similar multi-functional electronic device is not included in this exception unless it is a railroad-supplied device and is used for an authorized business purpose; and
 - The camera is turned off immediately after the photograph is taken; and the camera is not used by an employee at the controls of moving equipment.

A personal stand-alone calculator, digital watch whose only purpose is as a timepiece and medical devices that are consistent with the railroad's standards may be used as necessary in the performance of duties.

D. Permitted Use:

An operating employee may use an electronic device when:

- Deadheading in a non-controlling unit or automobile.
- In a crew room to update rules or documents specified in SSI Item 7-A, or other required company provided electronic media only.

Railroad authorized electronic devices may be used in the body of a business car or passenger train for railroad business when it will not interfere with an employee's performance of safety related duties.

Engineering, Mechanical, and Premium Operations Employees will be governed by the following:

A camera may be used to take a photograph of a safety hazard or a violation of a rail safety law, regulation, order, or standard, provided that:

- The device is a personal stand alone camera. NOTE: A camera that is part of a cell phone or other similar multi-functional electronic device is not included in this exception unless it is a railroad-supplied device and is used for an authorized business purpose; and
- The camera is turned off immediately after the photograph is taken; and the camera is not used by an employee at the controls of moving equipment.

E. Engineering Employees

When cell phone use is allowed, employees must follow all applicable federal, state and local laws. Use of electronic devices is governed by the following:

1. Before using an electronic device, determine that it is safe to do so.
2. Operators of vehicles and equipment, including hrrails, must not use an electronic device while equipment is moving. A computer may be used for business purposes, however, the operator must stop equipment when necessary to enter or view information. If the computer is not equipped with a screen black out process that blacks out the screen when equipment is moving faster than 5 MPH, the device screen must not be viewable to the operator. Passengers may use cell phones or computers as long as their use doesn't distract the driver from safely operating the equipment.

Employees must not use electronic devices when:

- Standing or walking on a roadway.
- Foul of any track.
- In close proximity to men or equipment working on or off track.

F. Mechanical Employees

1. Personal Use of Electronic Devices

- Electronic devices must be limited to designated break and meal periods.
- Electronic devices must be turned off except when in a designated break or office area.

2. Business Use of Electronic Devices

Employees must ensure that electronic device usage does not compromise the safety of themselves and others.

Electronic devices must not be used while:

- In a red zone.
- Walking.
- Operating any vehicle (locomotives, car movers, forklifts, scooters, man lifts, etc.)
- Operating or in close proximity of operating machinery.
- Moving locomotives.
- Performing any safety sensitive work activity
- In the line of fire.

G. Premium Operations

UPRR intermodal ramp employees will be governed by the following:

In addition to rule 74.3, with exception of company data devices at the gate or equipment VMU's, no one may use any electronic device while on a UPRR intermodal ramp with the following exceptions:

- Use of electronic devices should be limited in nature and cell phones must be powered off and not used when in a red zone or when operating ramp related equipment of any kind. Electronic devices may not be used when working on the ground, in mechanical areas, in and around any type of equipment or when performing any type of safety sensitive task.
- Operators of over the road trucks, passenger vehicles and repair type vehicles are permitted to use cell phones only when a hands free device is used along with voice activated or speed dialing or when parked in designated parking areas. Gate lanes are not designated parking areas for this purpose. The use of a cell phone for anything other than voice communication is prohibited while operating a motor vehicle.
- Use of electronic devices is permitted only in break areas, office areas or in parked passenger or over the road type vehicles in designated parking areas.

Rule Updated Date

May 2, 2016

System Special Instructions

Effective Date: May 2, 2016

[^Top](#)

[Union Pacific Rules](#)

UPRR - General Code of Operating Rules

3.0: Section Reserved

- [RESERVE: Section Reserved](#)

RESERVE: Section Reserved

Rule Updated Date

April 7, 2010

[^Top](#)

[Union Pacific Rules](#)

UPRR - General Code of Operating Rules

4.0: TIMETABLES

- [4.1: New Timetable](#)
- [4.1.1: Notice of New Timetable](#)
- [4.2: Special Instructions](#)
- [4.3: Timetable Characters](#)

4.1: New Timetable

The moment a new timetable goes into effect, it will replace the previous one.

Rule Updated Date

April 7, 2010

[^Top](#)

4.1.1: Notice of New Timetable

At least 24 hours before a new timetable goes into effect, notification will be made by general order. A track bulletin will also be issued at least 24 hours before the new timetable goes into effect and continue for 6 days after the effective date.

Rule Updated Date

April 7, 2010

[^Top](#)

4.2: Special Instructions

Special instructions will replace any rule or regulation with which they conflict.

Rule Updated Date

April 7, 2010

[^Top](#)

4.3: Timetable Characters

Timetable characters are letters and symbols located in the timetable station column. These letters and symbols indicate the special conditions at specific locations (such as yard limits and manual interlockings). A timetable station column may also

include information on the method of operation (such as TWC, ABS, CTC, or DTC). Explanation of characters will be shown in the timetable or special instructions.

Rule Updated Date

April 1, 2015

[^Top](#)

Union Pacific Rules

UPRR - General Code of Operating Rules

5.0: SIGNALS AND THEIR USE

- [5.1: Signal Equipment](#)
- [5.2: Receiving and Giving Signals](#)
- [5.2.1: Looking for Signals](#)
- [5.2.2: Signals Used by Employees](#)
- [5.3: Hand and Radio Signals](#)
- [5.3.1: Hand Signals](#)
- [5.3.2: Giving Signals](#)
- [5.3.3: Signal Disappearance](#)
- [5.3.4: Signal to Stop](#)
- [5.3.5: Acknowledge Stop Signal](#)
- [5.3.6: Radio and Voice Communication](#)
- [5.3.7: Radio Response](#)
- [5.4: Flags for Temporary Track Conditions](#)
- [5.4.1: Temporary Restrictions](#)
- [5.4.2: Display of Yellow Flag](#)
- [5.4.3: Display of Yellow-Red Flag](#)
- [5.4.4: Authorized Protection by Yellow or Yellow-Red Flag](#)
- [5.4.5: Display of Green Flag](#)
- [5.4.6: Display of Flags Within Current of Traffic](#)
- [5.4.7: Display of Red Flag](#)
- [5.4.8: Flag Location](#)
- [5.5: Permanent Speed Signs](#)
- [5.6: Unattended Fusee](#)
- [5.8: Bell and Whistle Signals](#)
- [5.8.1: Ringing Engine Bell](#)
- [5.8.2: Sounding Whistle](#)
- [5.8.3: Whistle Failure](#)
- [5.8.4: Whistle Quiet Zone](#)
- [5.8.5: Silenced Whistle](#)
- [5.9: Headlight Display](#)
- [5.9.1: Dimming Headlight](#)
- [5.9.2: Headlight Off](#)
- [5.9.3: Headlight Failure](#)
- [5.9.4: Displaying Headlights Front and Rear](#)

- [5.9.5: Displaying Ditch Lights](#)
- [5.9.6: Displaying Oscillating White Headlight](#)
- [5.9.7: Displaying Oscillating or Flashing Red Light](#)
- [5.9.8: Displaying Cab Roof Light](#)
- [5.10: Markers](#)
- [5.10.1: Highly Visible Markers](#)
- [5.10.2: Alternative Markers](#)
- [5.11: Engine Identifying Number](#)
- [5.12: Protection of Occupied Outfit Cars](#)
- [5.13: Blue Signal Protection of Workmen](#)
- [5.13.1: Utility Employees](#)
- [5.14: Signs Protecting Equipment](#)
- [5.14.1: Contractor Protection for Servicing Locomotives](#)
- [5.15: Improperly Displayed Signals](#)

5.1: Signal Equipment

Employees who give or display signals must have the proper appliances. Appliances must be in good condition and ready to use.

Rule Updated Date

April 7, 2010

[^Top](#)

5.2: Receiving and Giving Signals

Rule Updated Date

April 7, 2010

[^Top](#)

5.2.1: Looking for Signals

To recognize and follow signals correctly, employees must:

- Always be on the lookout for signals.
- Comply with the intent of the signal.
- Not act on any signal that they do not understand or that may be intended for other trains or engines

Application:

Engineering department employees performing lookout duties (wearing a yellow/green vest with orange reflectorized striping, with "Lookout" printed on the vest) may be communicating with their work group with a white flag. This white flag is not a signal to the train, rather a signal to the work group that an approaching train has been spotted.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

5.2.2: Signals Used by Employees

To give clear signals during the day and night, employees must:

A. During the Day

1. Use the correct color of flags or lights.
2. Use day signals from sunrise to sunset.
3. Flagmen providing protection as outlined in Rule 6.19 must have a red flag and six red fuses.

B. At Night

1. Use the correct color of reflectorized flags or lights.
2. Use night signals from sunset to sunrise or when day signals cannot be seen clearly.
3. Flagmen providing protection as outlined in Rule 6.19 must have a white light and six red fuses.

Flags may be made from cloth, metal or other suitable material.

Rule Updated Date

April 7, 2010

[^Top](#)

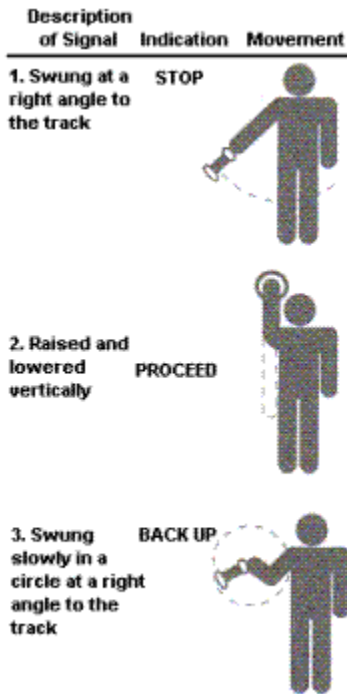
5.3: Hand and Radio Signals**Rule Updated Date**

April 7, 2010

[^Top](#)

5.3.1: Hand Signals

The following diagram illustrates the hand signals for a train or engine to stop, proceed, or backup.



[Diagram A]

Employees may use other hand signals only if all crew members understand the signals. When employees are not giving hand signals, they must not make any gestures or movements that may resemble a hand signal.

Rule Updated Date

April 7, 2010

[^Top](#)

5.3.2: Giving Signals

Employees who give signals must:

- Make sure signals can be plainly seen.
- Give signals clearly so they can be understood.
- Give signals on the engineer's side of the track when practical.

Rule Updated Date

April 7, 2010

[^Top](#)

5.3.3: Signal Disappearance

If a person disappears who is giving the signal to back or shove a train, engine, or car, or the light being used disappears, employees must

stop movement unless employee on leading car controls the air brakes.

Rule Updated Date

April 1, 2015

[^Top](#)

5.3.4: Signal to Stop

ANY OBJECT WAVED VIOLENTLY BY ANY PERSON ON OR NEAR THE TRACK IS A SIGNAL TO STOP.

Rule Updated Date

April 7, 2010

[^Top](#)

5.3.5: Acknowledge Stop Signal

Except when switching, acknowledge hand signal to stop a train. When flagged, the engineer must obtain a thorough explanation from the flagman before proceeding.

Rule Updated Date

April 7, 2010

[^Top](#)

5.3.6: Radio and Voice Communication

Employees may use radio and other means of voice communication to give information when using hand signals is not practical.

Employees must make sure crew members:

- Know which moves will be made by radio communication.
- Understand that while using the radio, the engineer will not accept any hand signals, unless they are Stop signals.

Rule Updated Date

April 7, 2010

[^Top](#)

5.3.7: Radio Response

Delete entire rule.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

5.4: Flags for Temporary Track Conditions

Rule Updated Date

April 7, 2010

[^Top](#)

5.4.1: Temporary Restrictions

Track bulletins, track warrants, or general orders may restrict or stop train movements because of track conditions, structures or men or equipment. Yellow flags are used to indicate temporary speed restrictions. Yellow-red flags are used to indicate when a train may be required to stop. When flags are not displayed, that information will be included in the track bulletin, track warrant, or general order.

When a restriction spans adjoining subdivisions, separate temporary restrictions may be issued on each subdivision. Only one set of flags may be displayed in advance of the entire restriction in each direction.

Rule Updated Date

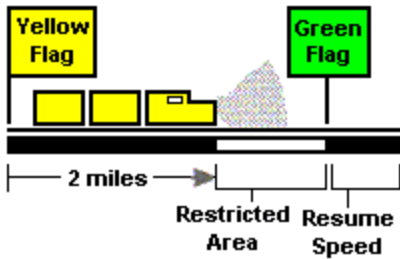
April 7, 2010

[^Top](#)

5.4.2: Display of Yellow Flag

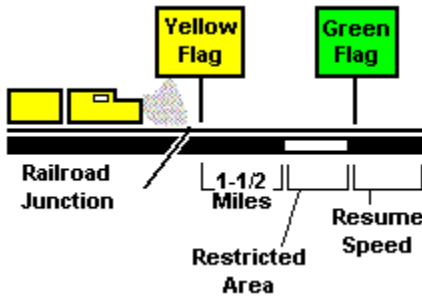
A. Restriction is in Effect.

Two Miles Ahead of Restricted Area. Yellow flags warn trains to restrict movement because of track conditions or structures. To make sure train movement is restricted at the right location, employees must display a yellow flag 2 miles before the restricted area.



[Diagram A]^

Less than Two Miles Ahead of Restricted Area. When the restricted area is close to a terminal, junction or another area, employees will display the yellow flag less than 2 miles before the restricted area. This information will also be included in the track bulletin, track warrant, or general order.



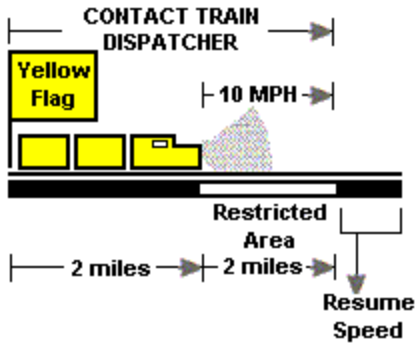
[Diagram B]^

Once the Train Reaches the Restricted Area. The speed specified by track warrant, track bulletin, general order, or radio speed restriction must not be exceeded until the rear of the train clears the restricted area.

B. Restriction Is Not in Effect

When a yellow flag is displayed and no restriction is in effect, as specified by a track bulletin, track warrant or general order, once the train is 2 miles beyond the yellow flag, crew members must:

1. Continue moving the train but at a speed not exceeding 10 MPH.
2. Resume speed only after the rear of the train has:
 - a. Passed a green flag.
 - or
 - b. Traveled 4 miles beyond the yellow flag and the train dispatcher has verified that no track bulletin or track warrant is in effect specifying a temporary speed restriction at that location.



[Diagram C]^

Rule Updated Date

April 1, 2015

[^Top](#)

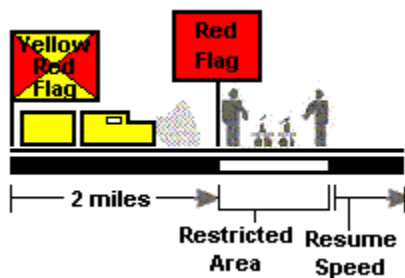
5.4.3: Display of Yellow-Red Flag

Employees may display yellow-red flags from one hour before the track bulletin Form B takes effect until one hour after it expires. During that time the employee in charge may provide a train instructions to proceed without restriction, specifying the Track Bulletin number (specifying line number when necessary) and advising no red flag displayed.

The display of yellow-red flags as described does not extend the authorized working time beyond the times listed on the track bulletin Form B.

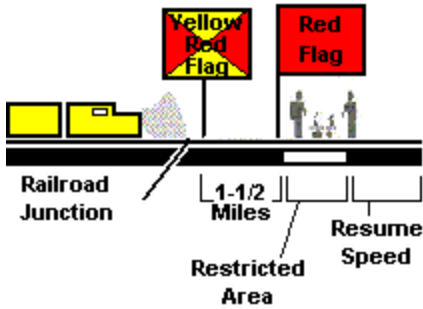
A. Restriction Is In Effect

Two Miles Ahead of Restricted Area. Yellow-red flags warn a train to be prepared to stop because of men or equipment. To make sure the train is prepared to stop at the right location, employees must display a yellow-red flag 2 miles before the restricted area.



[Diagram A]^

Less Than Two Miles Ahead of Restricted Area. When the restricted area is close to a terminal, junction, or another area, employees will display the yellow-red flag less than 2 miles before the restricted area. This information will also be included in the track bulletin, track warrant or general order.



[Diagram B]^

B. Restriction Is Not In Effect

When a yellow-red flag is displayed and no restriction is in effect as specified by a track bulletin, track warrant, or general order, a crew member must attempt to contact the employee in charge of the yellow-red flag. Crew members must be prepared to stop short of a red flag 2 miles beyond the yellow-red flag. If a red flag is displayed, proceed as outlined in Rule 5.4.7 (Display of Red Flag). If no red flag is displayed:

1. Move at restricted speed.
2. Increase speed only after:
 - a. A crew member has received instructions from the employee in charge.
or
 - b. The leading wheels of movement are 4 miles beyond the yellow-red flag, and the train dispatcher has verified that no track bulletin or track warrant protecting men or equipment is in effect at that location.

Rule Updated Date

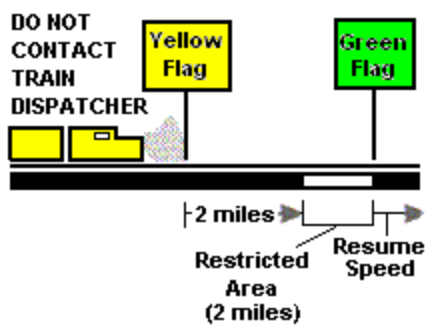
April 1, 2015

[^Top](#)

5.4.4: Authorized Protection by Yellow or Yellow-Red Flag

On subdivisions where maximum speed does not exceed 40 MPH, and it is authorized by special instructions, yellow flags may be displayed without the use of track bulletins, track warrants or flagmen. Yellow flags must be displayed 2 miles before the restricted area. Protection will begin at a point 2 miles beyond the yellow flag and continue for 2 more miles, as outlined in Rule 5.4.2 (Display of Yellow Flag).

Note: Crew members do not need to receive verification from the train dispatcher when this rule is in effect.



[Diagram A]^

Rule Updated Date

April 1, 2015

System Special Instructions

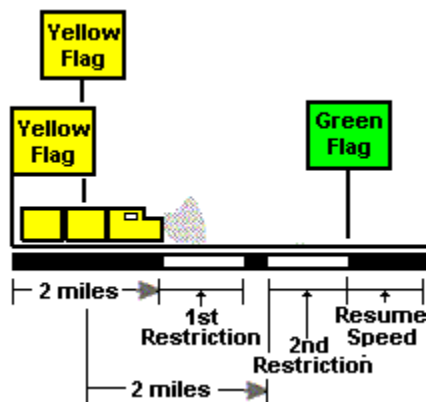
Effective Date: April 1, 2015

[^Top](#)

5.4.5: Display of Green Flag

A green flag indicates the end of a temporary speed restriction. If a series of locations require reduced speeds, the green flags could overlap yellow flags. When this is the case, employees must:

- Place a yellow flag before each speed restriction
- Place a green flag at the end of the last speed restriction.



[Diagram A]

Rule Updated Date

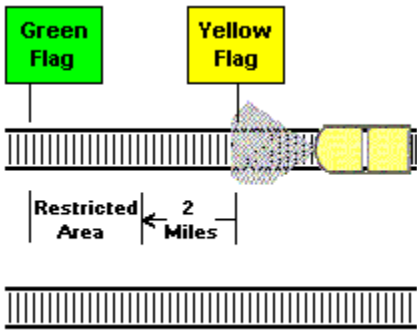
April 7, 2010

[^Top](#)

5.4.6: Display of Flags Within Current of Traffic

A. Yellow and Green Flags

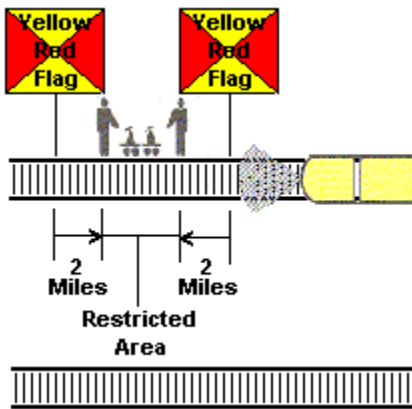
Flags for temporary speed restrictions will only be placed for trains moving with the current of traffic.



[Diagram A]

B. Yellow-Red Flags

Flags protecting men or equipment must be placed in both directions on each track affected.



[Diagram B]

Rule Updated Date

April 7, 2010

[^Top](#)

5.4.7: Display of Red Flag

A red flag is displayed where trains must stop. When approaching a red flag, the train must stop short of the red flag and not proceed unless the employee in charge gives instructions, including the milepost location of the red flag. A crew member must attempt to contact the employee in charge to avoid delay, giving the location of the red flag and the track being used. If instructions to proceed are received before the train stops, the train may pass the red flag without stopping.

If track bulletin Form B is not in effect, instructions must include speed and distance. This speed must not be exceeded until the rear of the train has passed the specified distance from the red flag, unless otherwise instructed by the employee in charge.

Displayed Between Rails. When a red flag is displayed between the rails of a track, the train must stop and not proceed until the flag has been removed by an employee of the class that placed it.

Rule Updated Date

April 1, 2015

[^Top](#)

5.4.8: Flag Location

Flags will be displayed only on the track affected. However, when yellow, yellow-red, or red flags are used for protection without a track bulletin, track warrant, or general order, these flags must be placed to protect all possible access to the restricted area.

Flags must be displayed to the right of the track as viewed from an approaching train. In multiple main track territory or where sidings are adjacent to main track(s), they will be placed on the field side of outside tracks. Red flags may be displayed between the rails as outlined in Rule 5.4.7 (Display of Red Flag). Flags will be placed in this manner unless otherwise specified by track bulletin, track warrant, special instructions, or general order.

When flags are displayed beyond the first rail of an adjacent track, the flags will not apply to the track on which the train is moving.

Application:

In three or more main track territory, flags will be displayed to the right of center tracks (inside tracks) where clearance allows.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

5.5: Permanent Speed Signs

Permanent speed restriction signs will be placed in advance of permanent speed restrictions. Numbers on the face of these signs indicate the highest speed permitted over the limits of the restriction.

Two Sets of Numbers

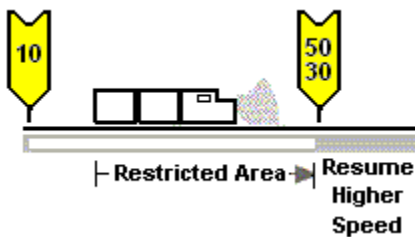
When two sets of numbers are shown, the greater number governs trains consisting entirely of passenger equipment. The lesser number governs all other trains.

Resume Speed Signs

A permanent resume speed sign or a speed sign showing a higher speed will be placed at the end of each restriction.

Crew members must not exceed the speed shown on each permanent speed restriction sign until the rear of the train:

- Has passed a permanent resume speed sign or a sign showing a higher speed.
or
- Has cleared the limits of the restriction.



[Diagram A]^

Application:

The location of permanent speed signs are:

- 2500 feet ahead of the restriction (Arrow-shaped signs).
- 2 miles ahead of the restriction (Square or rectangular signs).

Rule Updated Date

April 1, 2015

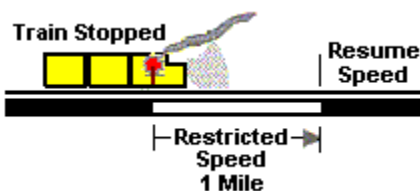
System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

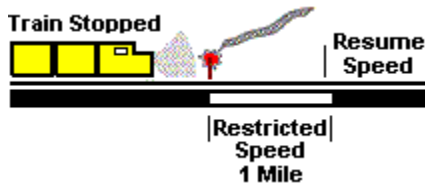
5.6: Unattended Fusee

If a train approaches an unattended fusee burning on or near its track, the train must stop consistent with good train handling.



[Diagram A]

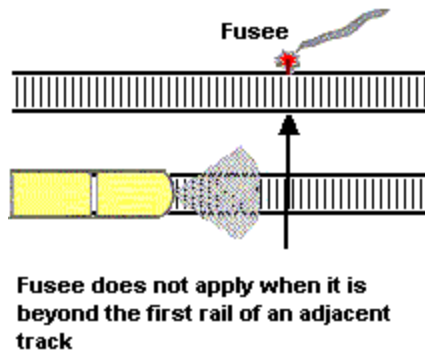
A train moving at restricted speed must stop before passing the fusee.



[Diagram B]

After stopping, the train must proceed at restricted speed for 1 mile beyond the fusee.

If the unattended burning fusee is beyond the first rail of an adjacent track, the fusee does not apply to the track on which the train is moving.



[Diagram C]

Do not place fusees where they may cause fires.

Rule Updated Date

April 7, 2010

[^Top](#)

5.8: Bell and Whistle Signals

Rule Updated Date

April 7, 2010

[^Top](#)

5.8.1: Ringing Engine Bell

Ring the engine bell under any of the following conditions:

- Before moving, except when making momentary stop and start switching movements.
- As a warning signal anytime it is necessary.
- When approaching men or equipment on or near the track.

- When moving on the main track or siding, ring bell continuously while passing standing equipment on an adjacent track.
- Approaching public crossings at grade with the engine in front start signal at the crossing sign. If no sign, or if movement begins between sign and crossing, start signal soon enough before crossing to provide warning. Continue ringing bell until the crossing is occupied.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

5.8.2: Sounding Whistle

The whistle may be used at anytime as a warning regardless of any whistle prohibitions. When approaching areas where it is known employees are working or seen on a track adjacent to a main track or siding, sound warning.

When other employees are working in the immediate area, sound the required whistle signal before moving.

Other forms of communications may be used in place of whistle signals, except signals (1), (7) and (8). See following chart.

The required whistle signals are illustrated by "o" for short sounds and "-" for longer sounds.

SOUND	INDICATION
[1] Sound whistle to attempt to attract attention to the train.	Use when persons or livestock are on the track at other than road crossings at grade. Use when within quiet zones when engineer believes such action is appropriate. When unable to determine an employees work group, sound signal 5.8.2 (8).
[2] -	When stopped: air brakes are applied, pressure equalized.
[3] - -	Release brakes. Proceed
[4] o o	Acknowledgement of any signal not otherwise provided for.
[5] o o o	When stopped: back up. Acknowledgment of hand signal to back up.
[6] o o o o	Request for signal to be given or repeated if not understood.
[7] - - o -	When approaching public crossings at grade, with engine in front, sound signal as follows: A. At speeds in excess of 45 MPH, start signal at or about the crossing sign but not more than 1/4 mile before the crossing. B. At speeds of 45 MPH or less, start signal at least 15 seconds, but not more than 20 seconds, before entering the crossing. C. If no crossing sign, start signal at least 15 seconds, but not more than 20 seconds, before entering

	<p>crossing, but not more than 1/4 mile before the crossing.</p> <p>D. If movement starts less than 1/4 mile from a crossing, signal may be sounded less than 15 seconds before entering the crossing when it is clearly seen traffic is not approaching the crossing, traffic is not stopped at the crossing or when crossing gates are fully lowered.</p> <p>Prolong or repeat signal until the engine completely occupies the crossing(s).</p> <p>At locations where crossing signs are displayed sound whistle as required above regardless of the type of crossing train is approaching.</p> <p>In the states of California and Montana sound whistle signal at all crossings, public and private.</p>
[8] - o	<p>Approaching men or equipment on or near the track, regardless of any whistle prohibitions.</p> <p>After this initial warning, sound whistle signal (4) intermittently until the head end of train has passed the men or equipment.</p>

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

5.8.3: Whistle Failure

If the whistle fails to operate and no other unit can be used as the lead unit, continue movement with the bell ringing continuously. Stop the train before each public crossing, so a crew member on the ground can provide warning until the crossing is occupied, unless:

- Crossing gates are in the fully lowered position.
- or
- No traffic is approaching or stopped at the crossing.

Rule Updated Date

April 7, 2010

[^Top](#)

5.8.4: Whistle Quiet Zone

Within designated whistle quiet zones, whistle signal (7) must not be sounded approaching public crossing at grade except when:

- Necessary to provide warning in an emergency.
 - Notified automatic warning devices are malfunctioning.
 - Notified automatic warning devices are out of service.
- or
- The whistle quiet zone is not in effect during specified hours.

Rule Updated Date

April 7, 2010

[^Top](#)

5.8.5: Silenced Whistle

Whistle signal (7) is not required when approaching a public crossing at grade when:

- Permanent maximum authorized track speed is 15 MPH or less,
 - Active grade crossing warning devices, if equipped, are operating as intended,
- and
- Crew member is on the ground at the crossing to provide warning until crossing is occupied.

Rule Updated Date

April 1, 2015

[^Top](#)

5.9: Headlight Display

Turn the headlight on bright to the front of every train, except when the light must be dimmed as outlined in Rule 5.9.1 (Dimming Headlight) or turned off as outlined in Rule 5.9.2 (Headlight Off).

Rule Updated Date

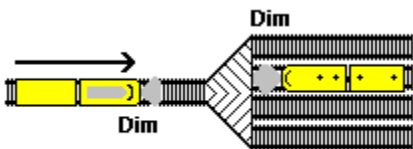
April 7, 2010

[^Top](#)

5.9.1: Dimming Headlight

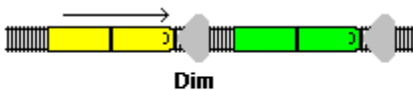
Approaching public crossings at grade with engine in front, the headlight must be on bright at the crossing sign. If no sign, or if movement begins between sign and crossing, the headlight must be on bright soon enough before the crossing to provide warning. Except when the engine is approaching and passing over a public crossing at grade, dim the headlight during any of the following conditions:

1. At stations and yards where switching is being done.



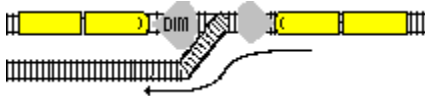
[Diagram A]

2. When stopped close behind another train.



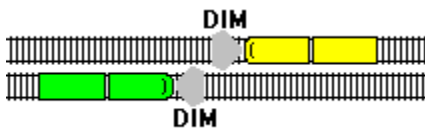
[Diagram B]

3. When stopped on the main track waiting for an approaching train. However, when stopped in block system limits, turn the headlight off at the radio request of the crew of an approaching train, until the head end of the train passes.



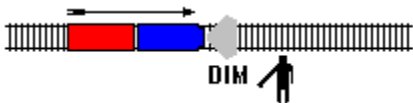
[Diagram C]

4. When approaching and passing the head end of a train at night.



[Diagram D]

5. At other times to permit passing of hand signals or when the safety of employees requires.



[Diagram E]

6. When left unattended on a main track in non-sigaled territory.

Rule Updated Date

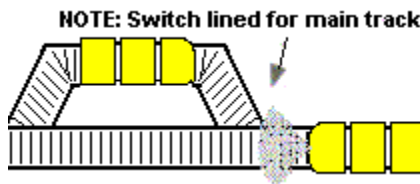
April 7, 2010

[^Top](#)

5.9.2: Headlight Off

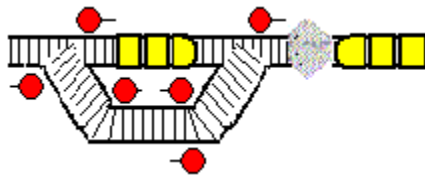
Turn the headlight off under either of the following conditions:

1. The train is stopped clear of the main track.



[Diagram A]

2. The train is left unattended on the main track in block system limits.



[Diagram B]

Rule Updated Date

April 7, 2010

[^Top](#)

5.9.3: Headlight Failure

If the headlight on the train fails, ditch lights must be on, when so equipped. Headlight failure must be reported to the train dispatcher.

At night, if the headlight and ditch lights fail to operate and no other unit can be used as the lead unit, continue movement with a white light displayed on the lead unit. Stop the train before each public crossing, so a crew member on the ground can provide warning until the crossing is occupied, unless:

- Crossing gates are in the fully lowered position.
or
- No traffic is approaching or stopped at the crossing.

Rule Updated Date

April 7, 2010

[^Top](#)

5.9.4: Displaying Headlights Front and Rear

When engines are moving, crew members must turn on the headlight to the front and rear, but may dim or extinguish it on the end coupled to cars.

Rule Updated Date

April 7, 2010

[^Top](#)

5.9.5: Displaying Ditch Lights

Display ditch lights, if equipped, to the front of the train when moving over public crossings and anytime the headlight is required to be on bright.

Locomotives must not be operated as the lead unit on trains out of the trains' initial terminal unless both ditch lights are operating. However, if no units are equipped with ditch lights, do not exceed 20 MPH over public crossings until occupied.

If one ditch light fails enroute, the train may proceed, but repairs must be made by the next daily inspection. If two ditch lights fail enroute, the train may proceed, but not exceeding 20 MPH over public crossings until occupied, but must not travel beyond the first point where repairs may be made or until the next daily inspection, whichever occurs first.

Application:

The term "ditch lights" includes oscillating white headlights or strobe lights located on the front of the locomotive. Ditch lights on some foreign locomotives are configured to operate only when the horn is activated. Ditch lights which operate in this manner will be considered as meeting the requirements of this rule. When a remote control locomotive is being controlled with a remote control transmitter the ditch lights need not be displayed if speed does not exceed 20 MPH. Ditch lights are not required on steam locomotives. Failure of two ditch lights includes employee failure to turn on the ditch lights.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

5.9.6: Displaying Oscillating White Headlight

If the leading engine is equipped with an oscillating white headlight, turn the light on when the engine is moving. However, turn the light off when meeting trains, passing trains, or during switching operations, unless movement involves public crossings at grade.

Rule Updated Date

April 7, 2010

[^Top](#)

5.9.7: Displaying Oscillating or Flashing Red Light

If the leading engine is equipped with an oscillating or flashing red light, turn the light on under any of the following conditions:

- Train is stopped suddenly where adjacent tracks may be fouled.
 - Head-end protection is required.
- or
- Condition exists that endangers movement.

The red light signals an approaching train on the same or adjacent track to stop at once and to proceed only after the track is safe for train passage. Extinguish red flashing lights when they are no longer needed.

Displaying these lights does not modify the requirements of Rule 6.19 (Flag Protection) or Rule 6.23 (Emergency Stop or Severe Slack Action).

Rule Updated Date

April 7, 2010

[^Top](#)

5.9.8: Displaying Cab Roof Light

If engine is equipped with an amber or white cab roof light that revolves or flashes, display the light on the occupied controlling unit.

Rule Updated Date

April 7, 2010

[^Top](#)

5.10: Markers

A marker of prescribed type must be displayed on the trailing end of the rear car to indicate the rear of the train.

Application:

Before departing the initial terminal, the conductor must know the initials and number of the car that has the marker applied or unit number, when the engine at rear of the train is used as the marker. This can be done verbally by the employee making the initial terminal air brake test, or included on the written notification of the test. If the rear car changes, an employee must report to the conductor the initials and number of the car having the marker applied before the train departs.

When a train is set out clear of the main track at other than a crew change location, a crew member must remove the end of train telemetry device, if so equipped. Transport the device on the engine to the destination where the crew is relieved.

If the engine remains with the train, a crew member must deliver the end of train telemetry device to the proper authority at the tie-up point. However, proper authority may advise the crew to leave the device with the train. Always notify the train dispatcher of the location of the telemetry device.

Do not place an EOT on a locomotive unless it is mounted on the knuckle. Conductors are responsible to ensure the EOT is placed in the correct location at yards/terminals.

Rule Updated Date

April 1, 2015

System Special Instructions

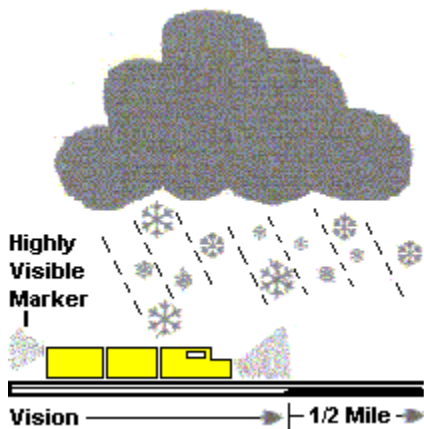
Effective Date: April 1, 2015

[^Top](#)

5.10.1: Highly Visible Markers

Display a highly visible marker at the rear of every train as follows:

- From 1 hour before sunset to 1 hour after sunrise
- When weather conditions restrict visibility to less than 1/2 mile



[Diagram A]

A marker equipped with a functioning photo-electric cell will automatically illuminate at the appropriate time.

When an engine is operating without cars or is at the rear of the train, the trailing headlight illuminated on dim may be used as a marker.

Inspection of Marker

When a highly visible marker is required, a qualified employee must inspect it at the initial terminal and at each crew change point. To determine if the marker is functioning properly, the employee will inspect it by observation or by telemetry display in the cab of the engine. The engineer must be informed of the results of the inspection.

Rule Updated Date

April 7, 2010

[^Top](#)

5.10.2: Alternative Markers

Display a reflector, red flag, or light fixture at the rear of the train as the marker when any of the following conditions exists:

- A highly visible marker is not required.
- A defective car must be placed at the rear for movement to a repair point.
- The rear portion of the train is disabled and cannot be moved, and a highly visible marker cannot be displayed on the rear of the portion to be moved.
or
- The highly visible marker becomes inoperative enroute. If this occurs, notify the train dispatcher and move the train to the next forward location where the highly visible marker can be repaired or replaced.

Rule Updated Date

April 7, 2010

[^Top](#)

5.11: Engine Identifying Number

Trains will be identified by initials and engine number, adding the direction when required. When an engine consists of more than one unit or when two or more engines are coupled, the number of one unit only will be illuminated as the identifying number. The identifying number will be the number of the lead unit, unless changing direction during a trip or tour of duty when that unit is no longer the lead unit.

Exceptions:

- On track bulletins that advise about excessive dimension equipment, trains may be identified by train symbol.
- On track bulletins and on track warrants that do not convey movement authority, passenger trains may be identified by schedule number.

Note: Engines with the following initials stenciled on the side of the locomotive will be identified as NS engines: SOU, NW, PRR, CG, INT, GSF, AGS, CRCX and CR (ConRail).

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

5.12: Protection of Occupied Outfit Cars

This rule outlines the requirements for protecting occupied outfit cars. As used in this rule, the following definitions apply:

Outfit Car. Any on-track vehicle, including outfit, camp, or bunk car or modular home mounted on a flat car to house railroad employees. Such equipment is not considered an outfit car when placed in a wreck train.

Effective Locking Device. When used in relation to a manually operated switch or a derail, a lock that can be locked or unlocked only by the craft or group of workmen applying the lock.

Rolling Equipment. Engines, cars and one or more engines coupled to one or more cars.

Switch Providing Direct Access. A switch that if used by rolling equipment could permit the rolling equipment to couple to the equipment being protected.

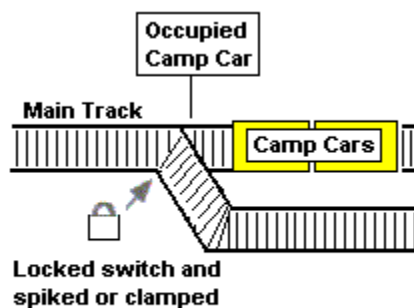
Warning Signal. A white sign that reads, "OCCUPIED CAMP CAR" in black lettering. At night, an illuminated white light must also be used.

When occupied outfit cars are placed on a track, the employee in charge of the outfit cars occupants (or a designated representative) must provide or request protection using one of the following methods:

A. On a Main Track

One of these two methods or a combination of these methods must be provided:

1. Each manually operated switch that provides direct access to that portion of the main track where occupied outfit cars are located must be lined against movement to that track, secured with an effective locking device, and spiked or clamped. Warning signals must be displayed at or near each switch.



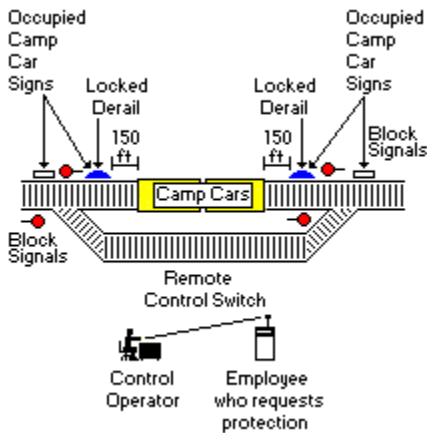
[Diagram A]

2. If remote control switches provide direct access to the main track where occupied outfit cars are located, the control operator will line the switch against movement to that track and apply blocking devices to the control machine to prevent movement onto that track. The control operator must complete the above tasks before informing the employee requesting protection that protection is provided.

Blocking devices must not be removed until the employee in charge of the outfit car occupants (or a designated

representative) informs the control operator that protection is no longer required.

- a. Warning signals must be displayed at or near each remote control switch.
- b. In addition, a derail capable of restricting access to the portion of main track where occupied outfit cars are located must be placed at least 150 feet from the end of the occupied outfit cars. The derail must be locked in derailing position with an effective locking device. Warning signals must be displayed at each derail.
- c. The control operator must maintain for 15 days a written record of each notification. The record must contain the following information.
 - Name and craft of employee requesting protection.
 - Identification of track protected.
 - Date and time employee in charge of outfit car occupants is notified that protection was provided.
 - Date, time, name and craft of employee authorizing removal of protection.

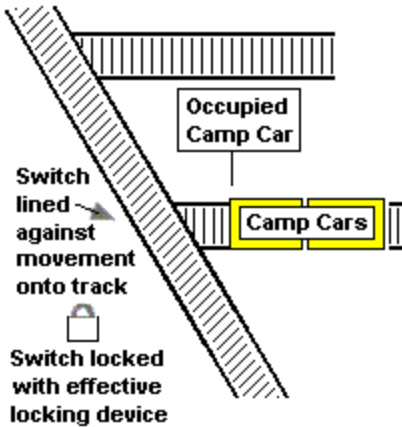


[Diagram B]

B. On other than a Main Track

One of these three methods of protection or a combination of these methods must be provided

1. Each manually operated switch that provides direct access to the track where occupied outfit cars are located must be lined against movement to that track and secured with an effective locking device. Warning signals must be displayed at or near each switch.

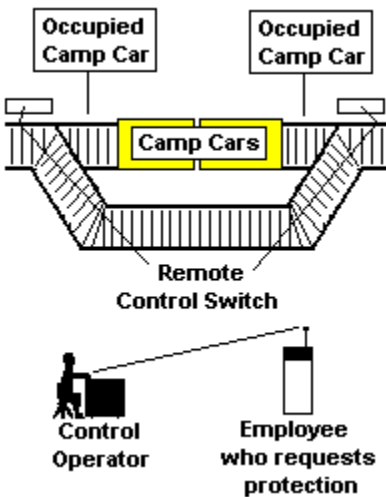


[Diagram C]

2. If remote control switches provide direct access to the track where occupied outfit cars are located, the control operator will line the switch against movement to that track and apply blocking devices to the control machine to prevent movement onto that track. The control operator must complete the above tasks before informing the employee requesting protection that protection is provided.

Blocking devices must not be removed until the employee in charge of the outfit car occupants (or a designated representative) informs the control operator that protection is no longer required.

- a. Warning signals must be displayed at or near each remote control switch.



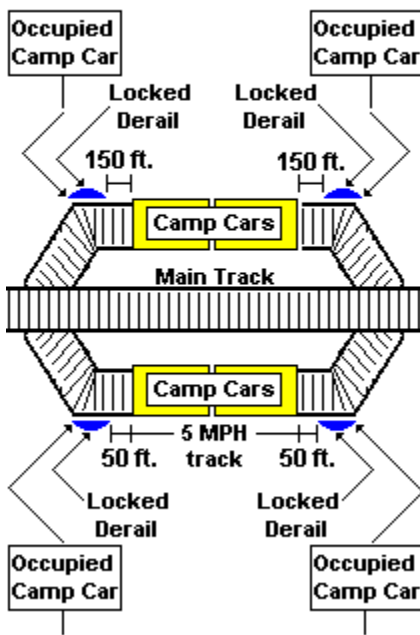
[Diagram D]

- b. The control operator must maintain for 15 days a written record of each notification. The record must contain the following information:
 - Name and craft of employee requesting protection
 - Identification of track protected
 - Date and time employee in charge of outfit cars occupants is notified that protection was provided.
 - Date, time, name and craft of employee authorizing removal of protection.

3. A derail capable of restricting access to that portion of the track where occupied outfit cars are located will fulfill the requirements of protection when the derail is:
 - a. Positioned at least 150 feet from the end of the occupied outfit cars.
or
 - b. Positioned at least 50 feet from the end of the occupied outfit cars where the maximum speed on that track is 5 MPH.

Warning signals must be displayed at each derail.

Warning signals must be displayed at each derail.



[Diagram E]

C. Warning Signals

When a warning signal is displayed to protect occupied outfit cars:

1. Occupied outfit cars must not be coupled to or moved.
2. Rolling equipment must not pass the warning signal.
3. Rolling equipment must not be placed on the same track in a manner that would block or reduce the crew's view of the warning signal.

Rule Updated Date

April 7, 2010

[^Top](#)

5.13: Blue Signal Protection of Workmen

This rule outlines the requirements for protecting railroad workmen who are inspecting, testing, repairing, and servicing rolling equipment. In particular, because these tasks require the workmen to work on, under or between rolling equipment, workmen are exposed to potential injury from moving equipment.

As used in this rule, the following definitions apply:

WORKMEN. Railroad employees assigned to inspect, test, repair, or service railroad equipment or components, including brake systems. Train and yard crews are excluded, except when they perform the above work on rolling equipment not part of the train or yard movement they are handling or will handle.

- "Servicing" does not include supplying cabooses, engines, or passenger cars with items such as ice, drinking water, tools, sanitary supplies, stationery, or flagging equipment.
- "Testing" does not include an employee making visual observations while on or alongside a caboose, engine, or passenger car. Also, testing does not include repositioning the activation switch or covering the photo-electric cell of the marker when the rear of the train is on the main track. The employee inspecting the marker must contact the employee controlling the engine to confirm that the train will remain secure against movement until the inspection is complete.

GROUP OF WORKMEN. Two or more workmen of the same or different crafts who work as a unit under a common authority and communicate with each other while working.

ROLLING EQUIPMENT. Engines, cars, and one or more engines coupled to one or more cars.

BLUE SIGNAL. During the day, a clearly distinguishable blue flag, or light, and at night, a blue light. The blue light may be steady or flashing.

The blue signal does not need to be lighted when it is attached to the operating controls of an engine and the inside of the engine cab area is lighted enough to make the blue signal clearly distinguishable.

EFFECTIVE LOCKING DEVICE. When used in relation to a manually operated switch or derail, a lock that can be locked or unlocked only by the craft or group of workmen applying the lock.

CAR SHOP REPAIR AREA. One or more tracks within an area where rolling equipment testing, servicing, repairing, inspecting, or rebuilding is controlled exclusively by mechanical department personnel.

ENGINE SERVICING AREA. One or more tracks within an area where engine testing, servicing, repairing, inspecting, or rebuilding is controlled exclusively by mechanical department personnel.

SWITCH PROVIDING DIRECT ACCESS. A switch that if used by rolling equipment could permit the rolling equipment to couple to the equipment being protected.

A. What a Blue Signal Signifies

A blue signal signifies that workmen are on , under, or between rolling equipment and requires that:

1. Rolling equipment must not be coupled to or moved, except as provided in "Movement in Engine Servicing Area" and "Movement in Car Shop Repair Area" of this rule.
2. Rolling equipment must not pass a blue signal on a track protected by the signal.
3. Other rolling equipment must not be placed on the same track so as to block or reduce the view of the blue signal.
 - a. However, rolling equipment may be placed on the same track when it is placed on designated engine servicing area tracks or car shop repair area tracks, or when a derail divides a track into separate working areas.

4. Rolling equipment must not enter a track when a blue signal is displayed at the entrance to the track.
5. Controls or devices on rolling equipment that could effect movement (for example, MU cables/hoses, hand brakes, angle cocks, etc.) must not be changed or operated unless directed by individuals who placed the blue signals or by the employee in charge of workmen.

Blue signals or remote control blue signals must be displayed for each craft or group of workmen who will work on, under, or between rolling equipment.

Protection Removed. Blue signals may be removed only by the craft or group who placed them. Remote control display may be discontinued when directed by the craft or group that requested the protection. When blue signal protection has been removed from one entrance of a double-ended track or from either end of rolling equipment on a main track, that track is no longer under blue signal protection.

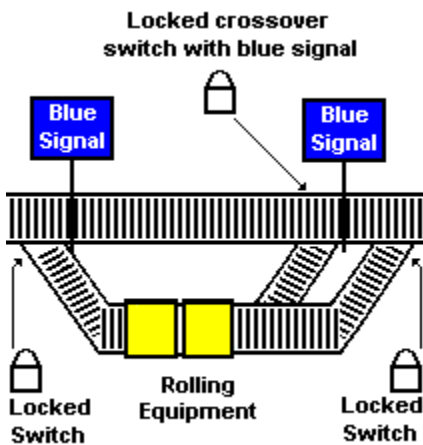
B. How to Provide Protection

When workmen are on, under, or between rolling equipment and exposed to potential injury, protection must be provided as follows:

On a Main Track. A blue signal must be displayed at each end of the rolling equipment.

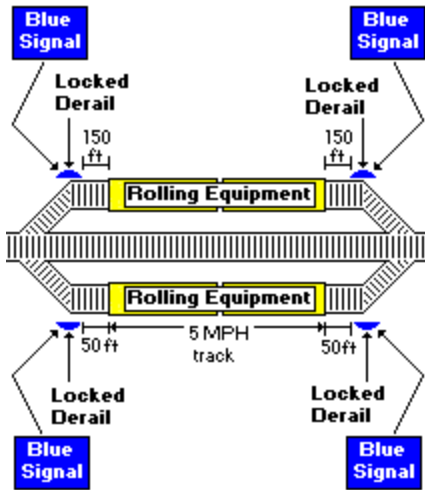
On Other than a Main Track. One of these three methods of protection or a combination of these methods must be provided:

1. Each manually operated switch, including any facing point crossover switch that provides direct access must be lined against movement onto the track and secured by an effective locking device. A blue signal must be placed at or near each such switch.



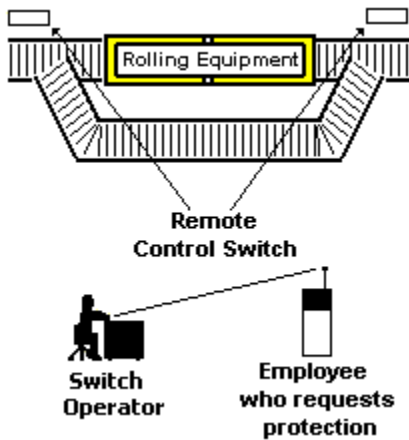
[Diagram A]^^^

2. A derail capable of restricting access to the track where work will occur must be locked in derailing position with an effective locking device and:
 - a. 150 feet from the rolling equipment to be protected.
 - or
 - b. 50 feet from the end of rolling equipment on a designated engine servicing track or car shop repair track where speed is limited to not more than 5 mph. A blue signal must be displayed at each derail.



[Diagram B]^^^

3. Where remote control switches provide direct access, the employee in charge of the workmen must tell the switch operator what work will be done. The switch operator must then:
 - a. Inform the employee in charge of the workmen that the switches have been lined against movement onto the track and devices controlling the switches have been secured.
 - b. Not remove the locking devices unless the employee in charge of the workmen says it is safe to do so.
 - c. Maintain for 15 days a written record of each notification that includes:
 - Name and craft of the employee in charge of the workmen requesting protection
 - Identification of track involved
 - Date and time the employee in charge of workmen is notified that protection was provided
 - Date, time, name, and craft of the employee in charge of workmen who authorized removal of the protection

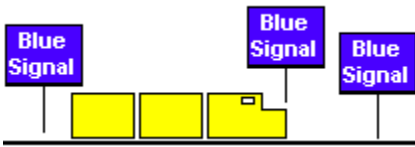


[Diagram C]^^^

C. Blue Signal Readily Visible to Engineer

In addition to providing protection as required in On a Main Track and On Other than a Main Track, when workmen are on, under, or between an engine or rolling equipment coupled to an engine.

1. A blue signal must be attached to the controlling engine and be visible to the engineer or employee controlling the engine.
2. Engines equipped for remote control operations must be in manual. A blue tag must be placed on the switch governing remote/manual operation.
3. The engine must not be moved.
4. Engine controls, brakes, circuit breakers and electrical switches (except cab lights) must not be operated unless directed by individuals who placed the blue signals or by the employee in charge of workman.



[Diagram D]^^

Note:

Remote control locomotives may be in remote mode while under blue signal protection to service remote control locomotive equipment/functions when the following requirements are met:

1. The employee placing the locomotive in remote mode has been trained to repair and operate remote control equipment.
2. All employees involved on the unit and/or tracks are job briefed and warned against possible inadvertent movement of the locomotive.

When a blue signal is attached to an engine, unless directed by the craft who place the blue signal, changing controls, brake settings, turning on or off switches (except overhead cab lights) or circuit breakers or starting or shutting down the engine is prohibited.

D. Protection for Workmen Inspecting Markers

Blue signal protection must be provided for workmen when they are:

1. Replacing, repositioning, or repairing a marker, and the rear of the train is on any track.
or
2. Inspecting a marker by repositioning the activation switch or covering the photo-electric cell, and the rear of the train is on other than a main track.

E. Protection for Emergency Repair Work on a Main Track

If a blue signal is not available for employees performing emergency repairs on, under, or between an engine or rolling equipment coupled to an engine, the employee controlling the engine must be notified and appropriate measures taken to provide protection for the employees.

F. Movement in Engine Servicing Area

An engine must not enter a designated engine servicing area until the blue signal protection is removed from the entrance. The engine must stop short of coupling to another engine.

An engine must not leave a designated engine servicing area unless the blue signal is removed from the engine and the track in the direction of movement.

Blue signal protection removed to let engines enter or leave the engine servicing area must be restored immediately after the engine enters or clears the area.

An engine protected by blue signals may be moved on a designated engine servicing area track when:

1. An authorized employee operates the engine under the direction of the employee in charge of workmen.
2. The blue signal has been removed from the controlling engine to be repositioned.
3. Workmen have been warned of the movement.

G. Movement in Car Shop Repair Area

When rolling equipment on car shop repair tracks is protected by blue signals, a car mover may reposition the equipment if:

1. Workmen have been warned of the movement.
2. An authorized employee operates the car mover under the direction of the employee in charge of workmen.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

5.13.1: Utility Employees

This rule outlines the requirements for allowing utility employees to work without blue signal protection. As used in this rule, a Utility Employee is a railroad employee assigned as a temporary member of a train or yard crew.

A. Requirements to Start Work

A utility employee may work as a member of only one train or yard crew at a time. No more than three utility employees may work with one train or yard crew at the same time.

A utility employee may become a member of a train or yard crew under the following conditions:

- The utility employee communicates with the designated crew member of the train or yard crew before starting work. Communication may be conducted verbally or by radio.
- The designated crew member identifies the utility employee to each member of the crew, and each crew member acknowledges the utility employees presence.
- The designated crew member authorizes the utility employee to work as a temporary member of the crew.

B. Requirements While Working On, Under, or Between

Before a utility employee may work on, under, or between rolling equipment, the following applies:

- All members of the crew must communicate with each other to understand the work to be done.
- The engineer must be in the cab of the assigned controlling locomotive. However, another member of the same crew may replace the engineer when the locomotive is stationary.

C. Requirements When Work Ends

A utility employee is released from a train or yard crew when:

- The utility employee notifies the designated crew member that the work is completed.
- The designated crew member notifies each crew member that the utility employee is being released.
- The designated crew member releases the utility employee from the train or yard crew, after each crew member acknowledges this notice.

Rule Updated Date

April 7, 2010

[^Top](#)

5.14: Signs Protecting Equipment

When a sign reading:

STOP -- TANK CAR CONNECTED

STOP -- MEN WORKING

EMPLOYEES WORKING

SERVICE CONNECTIONS

or a similar warning is displayed on a track or car, the car must not be coupled to or moved. Other equipment must not be placed on the same track in a manner that would block or reduce the view of the sign.

Rule Updated Date

April 7, 2010

[^Top](#)

5.14.1: Contractor Protection for Servicing Locomotives

When contractors are working, on, under, or between equipment, the contractor will place a red flag in a location that can be clearly seen from the cab of the controlling engine. When employees take charge of an engine, they must visually determine if a red flag is displayed. When a red flag is attached to an engine, unless directed by the contractor, the following are prohibited:

- Changing controls or brake settings.
- Turning on or off switches (except overhead cab lights).
- Changing circuit breakers.
- Starting or shutting down the engine.

Rule Updated Date

July 1, 2015

System Special Instructions

Effective Date: May 2, 2016

[^Top](#)

5.15: Improperly Displayed Signals

If a signal is improperly displayed, or a signal, flag, or sign is absent from the place it is usually shown, regard the signal as displaying the most restrictive indication it can give. However, if a semaphore arm is visible, it will govern.

Promptly report improperly displayed signals or absent fixed signals, flags, or signs to the train dispatcher.

Rule Updated Date

April 7, 2010

[^Top](#)

Union Pacific Rules

UPRR - General Code of Operating Rules

6.0: MOVEMENT OF TRAINS AND ENGINES

- [6.1: Repeat Instructions](#)
- [6.2: Initiating Movement](#)
- [6.2.1: Train Location](#)
- [6.3: Main Track Authorization](#)
- [6.3.1: Train Coordination](#)
- [6.4: Reverse Movements](#)
- [6.4.1: Permission for Reverse Movement](#)
- [6.4.2: Movements Within Control Points or Interlockings](#)
- [6.5: Shoving Movements](#)
- [6.5.1: Remote Control Movements](#)
- [6.5.2: Movement of Light Remote Control Locomotive](#)
- [6.6: Back Up Movements](#)
- [6.7: Remote Control Zone](#)
- [6.8: Stopping Clear for Meeting or Passing](#)
- [6.9: Meeting or Passing Precautions](#)
- [6.10: Instructions to Clear a Following Train](#)
- [6.11: Mandatory Directive](#)
- [6.12: FRA Excepted Track](#)
- [6.13: Yard Limits](#)
- [6.14: Restricted Limits](#)
- [6.15: Block Register Territory](#)
- [6.16: Approaching Railroad Crossings, Drawbridges, and End of Multiple Main Track](#)
- [6.17: Switches at Junctions](#)
- [6.18: Stopping Clear of Crossings and Junctions](#)
- [6.19: Flag Protection](#)
- [6.20: Equipment Left on Main Track](#)
- [6.21: Precautions Against Unusual Conditions](#)
- [6.21.1: Protection Against Defects](#)
- [6.21.2: Water Above Rail](#)
- [6.21.3: Track Obstruction/Unusual Conditions](#)
- [6.22: Maintaining Control of Train or Engine](#)
- [6.23: Emergency Stop or Severe Slack Action](#)
- [6.24: Movement on Double Track](#)
- [6.25: Movement Against the Current of Traffic](#)

- [6.26: Use of Multiple Main Tracks](#)
- [6.27: Movement at Restricted Speed](#)
- [6.28: Movement on Other than Main Track](#)
- [6.28.1: Sidings of Assigned Direction](#)
- [6.28.2: Stopping Clear in Siding](#)
- [6.28.3: Cars or Equipment Left on Siding](#)
- [6.29: Inspecting Trains](#)
- [6.29.1: Inspecting Passing Trains](#)
- [6.29.2: Train Inspections by Crew Members](#)
- [6.30: Receiving or Discharging Passengers](#)
- [6.31: Maximum Authorized Speed](#)
- [6.31.1: Permanent Speed Restrictions](#)
- [6.32: Road Crossings](#)
- [6.32.1: Cars Shoved, Kicked, or Dropped](#)
- [6.32.2: Automatic Warning Devices and Crossings That Require Additional Precautions](#)
- [6.32.3: Providing Warning for Adjacent Tracks](#)
- [6.32.4: Clear of Crossings and Signal Circuits](#)
- [6.32.5: Actuating Automatic Warning Devices Unnecessarily](#)
- [6.32.6: Blocking Public Crossings](#)
- [6.32.7: Road Crossings within Intermodal and Automotive Facilities](#)

6.1: Repeat Instructions

An employee who verbally receives instructions or information about train or engine movements must repeat them.

Rule Updated Date

April 7, 2010

[^Top](#)

6.2: Initiating Movement

Before initiating movement on a main track or controlled siding, a crew member must:

- Receive track bulletins affecting their movement.
- or
- Determine from the train dispatcher or yardmaster if any track bulletins are needed.

Rule Updated Date

April 1, 2015

[^Top](#)

6.2.1: Train Location

Trains who receive authority to occupy the main track after the arrival of a train or to follow a train, must ascertain the train's location by one of the following methods:

- Direct communication with a crew member of the train.
or
- Receiving information about the train from the train dispatcher or control operator.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

6.3: Main Track Authorization

Do not occupy main tracks unless authorized by one of the following:

- Rule 6.13 (Yard Limits)
- Rule 6.14 (Restricted Limits)
- Rule 6.15 (Block Register Territory)
- Rule 9.14 (Movement with the Current of Traffic)
- Rule 9.14.2 (Controlled Block System CBS)
- Rule 9.15 (Track Permits)
- Rule 10.1 (Authority to Enter CTC)
- Rule 14.1 (Authority to Enter TWC)
- Rule 14.6 (Movement Against the Current of Traffic)
- Rule 15.3 (Authorizing Movement Against the Current of Traffic)
- Rule 15.4 (Protection When Tracks Removed from Service)
- Rule 16.1 (Authority to Enter DTC)
- At manual interlockings, verbal authority from the control operator or a controlled signal that indicates proceed
- Special instructions or general order

When unable to obtain authority and it is necessary to foul or occupy a main track in ABS, protection must be provided in both directions as outlined under Rule 9.17.1 (Signal Protection in ABS by Lining Switch).

Written authorities that are no longer in effect must be retained until the end of tour of duty, unless otherwise instructed by the train dispatcher.

Joint Authority

When a train or employee receives authority joint with an employee(s), the train or employee must not occupy the overlapping limits until:

- Working limits are described and permission is received to enter the overlapping limits from the employee(s) listed on the authority.
or
- Advice is received from the train dispatcher or control operator that the employee(s) have reported clear of the limits.

When a train receives joint authority, movements must be made at restricted speed.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

6.3.1: Train Coordination

Train Coordination provides for men or equipment to use a train's authority to establish working limits. The employee must contact the train's engineer to request use of Train Coordination.

To establish working limits:

- The train must be in view and stopped.
- The employee in charge of working limits will communicate with the engineer who will notify other crew members that working limits are to be established.
- The engineer will make movements only as permitted by the employee in charge until the working limits have been released to the engineer.
- The train will not release its authority within the limits until those working limits have been released by the employee in charge.

Establish Working Limits

Working limits may be established within a train's authority limits as follows:

A. DTC or TWC Territory

1. With a train having authority to move in either direction that is not joint.
or
2. With a train having authority to move in one direction only, working limits must not be established:
 - Behind the train.

- More than one block in advance of the train or beyond any location that a train or engine could enter the track between the employee in charge of the working limits and the train.

B. Rule 9.15 (Track Permit)

With a train having the only track permit authority within the limits.

C. Rule 9.14 (Current of Traffic)

With a train having authority to move with the current of traffic, working limits must not be established:

- Behind the train.
- More than one block in advance of the train or beyond any location that a train or engine could enter the track between the employee in charge of the working limits and the train.

D. CTC Territory

1. With a train having track and time authority that is not joint.
or
2. With a train having authority to move in one direction only, working limits must not be established:
 - Behind the train.
 - More than one block in advance of the train or beyond any location that a train or engine could enter the track between the employee in charge of the working limits and the train.

Rule Updated Date

April 7, 2010

[^Top](#)

6.4: Reverse Movements

Make reverse movements on any main track, controlled siding, or on any track where a block system is in effect at restricted speed and only within the limits a train has authority to occupy the track.

Rule Updated Date

April 7, 2010

[^Top](#)

6.4.1: Permission for Reverse Movement

Obtain permission from the train dispatcher or control operator before making a reverse movement, unless the movement is within the same signaled block.

When a train or engine is advised that working limits have been established behind their train, obtain permission from the employee in charge to make any reverse movements, including within the same signaled block.

Application:

In ATC territory "within same signaled block" only applies where continuous block signal territory is designated.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

6.4.2: Movements Within Control Points or Interlockings

A. Control Points or Manual Interlockings

Control Points Outside Manual Interlockings.

Except within track and time limits, if movement stops while the trailing end is between the outer opposing absolute signals of a control point, the movement must not change direction without permission from the control operator. However, after a job briefing has been conducted and the control operator has a clear understanding of all movements to be made and tracks to be used, the control operator may grant permission for all movements.

Manual Interlockings

If movement stops while the trailing end is between the outer opposing absolute signals of a manual interlocking, the movement must not change direction without permission from the control operator.

B. Automatic Interlockings

At an automatic interlocking, the train movement may change direction within the limits of the interlocking if it continuously occupies at least one car length of the limits.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

6.5: Shoving Movements

Equipment must not be shoved until the engineer and the employee protecting the movement have completed a job briefing concerning how protection will be provided. Employee must be in position, provide visual protection of the equipment being shoved and participating crewmembers must not engage in unrelated tasks while making a shoving movement.

When making a shoving movement, the employee protecting the movement must see the route is clear and:

- Be in a position to continuously observe the leading end of the equipment until it is stopped.
or
- Walk adjacent to or ride the leading end of the equipment.

The employee protecting the shove must not turn their back on the movement or walk backwards ahead of the movement. Radio communications for shoving movements must specify the direction and distance and must be acknowledged when distance specified is more than four cars.

MOVEMENT MUST STOP WITHIN HALF THE DISTANCE SPECIFIED UNLESS ADDITIONAL INSTRUCTIONS ARE RECEIVED.

Equipment must not be shoved until it is visually determined that:

- Portion of track to be used is clear of equipment or conflicting movements.
- The track will remain clear to the location where movement will be stopped.
- Switches and derails are properly lined.

Employees may be relieved from providing visual protection when:

- Superintendent Bulletin specifies tracks that will be protected with shove lights or monitored cameras.
- Picking up a crew member in accordance with Rule 6.6 (Back Up Movements).

Shoving movements over road crossings must be made in accordance with Rule 6.32.1 (Providing Warning Over Road Crossings).

Speeds when Shoving

When cars are shoved on a main track or controlled siding in the direction authorized, movement must not exceed:

- 20 MPH for freight trains.
- 30 MPH for passenger trains.
- Maximum timetable speed for snow service unless the employee in charge authorizes a higher speed.

Application:

When not using hand signals, radio job briefing must include the following:

- Who will protect the shove.
- Which track is being shoved.
- How the shove will be protected.
- Distance and direction to be shoved.
- Position of switches and derails, if applicable.

Rule Updated Date

May 2, 2016

System Special Instructions

Effective Date: May 2, 2016

[^Top](#)

6.5.1: Remote Control Movements

Remote control movements are considered shoving movements, except when the remote control operator controlling the movement is riding the leading locomotive in the direction of movement. Before initiating movement, the remote control operator or a crew member must be in position to visually observe the direction the equipment moves.

When approaching within 200 feet of a fouling point, switch or derail, employee controlling the movement must be on the point of the movement outside the cab when riding the locomotive. However, movement may be controlled from inside the cab of the lead locomotive when:

- Operating in severe weather conditions.
or
- It is necessary to sound the whistle.

Relief of Providing Protection

The remote control operator is relieved from providing protection and the requirement to stop within half the range of vision for movements with engine on leading end when:

1. The remote control zone has been activated.
2. Switches/derails are known to be properly lined.
and
3. Track(s) within the zone are known to be clear of other trains, engines, railroad cars, and men or equipment fouling track.

When Remote Control Zone is equipped with pull back / stop protection (PSP), the operator must verify that PSP is operational. Pull back and stop protection must again be verified if PSP is overridden or disabled.

Note: These steps must be repeated each time the remote control zone is activated.

When operating in pitch and catch mode and making a shoving movement, the primary operator must be in position to protect point of movement.

The primary operator at the coupling may stretch the slack to ensure couplings are made or separate equipment to make coupler adjustments after a job briefing with the employee who will be protecting the point.

When requesting pin slack, the employee uncoupling the equipment is not required to be the primary operator.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

6.5.2: Movement of Light Remote Control Locomotive

Unless relieved of providing protection, the primary operator must take a position on the leading end of a light remote control locomotive consist or be positioned on the ground clear of the movement and able to observe the entire movement before initiating the movement.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

6.6: Back Up Movements

After obtaining permission from the train dispatcher, a train may back up on any main track or on any track where CTC is in effect under the following conditions:

1. The crew ensures movement will not:
 - a) Exceed the limit of the train's authority.
 - b) Exceed the train's length.
 - c) Enter or foul a private or public crossing except as provided by Rule 6.32.1 (Providing Warning Over Road Crossings).
 - d) Be made into or within yard limits, restricted limits, interlocking limits, drawbridges, railroad crossings at grade, or track bulletin Form B limits.

2. The train dispatcher grants permission to make the movement after verifying the following within the same or overlapping limits:
 - a) Another authority is not in effect unless conflicting movements are protected.
 - b) A track bulletin Form B is not in effect.
 - c) The main track is not removed from service.
 - d) Track Breach Protection is not in effect.
 - e) Permission to leave a switch in the reverse position has not been granted.

When movement is made under these conditions, restricted speed does not apply.

Before a crew requests and makes a move under this rule, a job safety briefing between crew members must be conducted that includes:

- Confirmation of authority limits.

- Location of nearest affected road crossings in direction of movement.
- Distance to be shoved.
- Confirmation that train is intact, verified either visually or by determining that brake pipe continuity exists using EOT device or distributed power telemetry.

Rule Updated Date

July 6, 2016

System Special Instructions

Effective Date: May 2, 2016

General Order

Effective Date: July 6, 2016

[^Top](#)

6.7: Remote Control Zone

A. Entering Remote Control Zone

Before entering a remote control zone, all employees that are not part of the remote control crew must determine whether the zone is activated. Employees may receive this information from the remote control operator, other authorized employee, or special instructions.

When the remote control zone is activated, track(s) within the zone must not be fouled with equipment, occupied, or switches operated until the remote control zone has been deactivated or permission is granted by the remote control operator to enter the remote control zone.

Protection must be provided while other employees are in the remote control zone. The remote control operator must know the track is clear and switches are properly lined after other employees are clear of the remote control zone.

Application of part A. Entering Remote Control Zone:

Timetable special instructions will designate limits of remote control zones. Signs will be posted at access locations to remote control zones. Remote control zone limits do not include tracks within CTC or interlocking limits (CTC or interlocking rules apply). Only the remote control operator may activate a zone. However, timetable special instructions may designate the hours a zone is active. Proper records must be maintained concerning activation, deactivation and transfer of the zones at locations where a designated supervisor may be contacted to determine if a zone is active.

Record must include:

- Job designation.
- Zone number.
- Date and time zone activated.

- If applicable, time zone transferred and job designation of other remote control job. Transfers from one job to another do not need to be recorded unless the transfer involves a job that is going off duty or will not again control the active zone. All active zones must be transferred to a new zone log.
- Date and time zone deactivated.

Remote control operators may allow only one other train or engine movement to occupy the limits of their active zone at one time. When that train or engine is clear of the zone with switches properly lined, it must report directly to the remote control operator. If it is necessary for other train or engine movements to enter the limits of the active zone during that time, the zone must be deactivated.

Engineering employees may use Individual Train Detection (ITD) in an active Remote Control Zone, when performing work without equipment. A job briefing must take place between the RCO and the engineering employee. The job briefing must include one of these options:

- Remote control movements will stop until the engineering employee completes the task and reports clear.
or
- RCO must provide protection for all movements.

Engineering or mechanical department employees, with equipment, must not enter or foul the track within an active zone. If necessary to enter the zone limits, the zone must be deactivated.

B. Transfer of an Active Remote Control Zone

An active remote control zone may be transferred to other remote control operators. A job briefing must be conducted each time the zone is transferred between remote control operators and, if applicable, other authorized employee.

C. Deactivating Remote Control Zone

When the remote control operator ends the tour of duty, the remote control zone must be deactivated except the remote control zone may remain active if:

- Transferred.
or
- Special instructions specify the hours the remote control zone is active.

Rule Updated Date

April 1, 2015

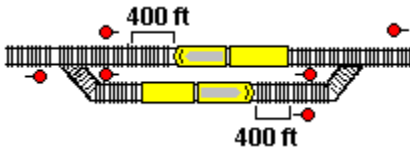
System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

6.8: Stopping Clear for Meeting or Passing

A train that may be met or passed must stop at least 400 feet from the signal or clearance point of the facing point switch the other train will pass over, if length of train permits.



[Diagram A]

Rule Updated Date

April 7, 2010

[^Top](#)

6.9: Meeting or Passing Precautions

A train required to take siding must stop clear of the switch, unless the switch is properly lined to leave the main track.

A train standing on the main track to meet an opposing train must, if possible, line the switch for the opposing train to leave the main track. However, within ABS, do not line the switch until the opposing train has entered the block in advance.

Rule Updated Date

April 7, 2010

[^Top](#)

6.10: Instructions to Clear a Following Train

If the train dispatcher instructs a train within block system limits to clear a following train, the train must be in the clear before the following train could receive a restrictive signal indication.

Determine the location of the following train by radio or other means of communication.

Rule Updated Date

April 7, 2010

[^Top](#)

6.11: Mandatory Directive

Mandatory directives are written, printed, or displayed authorities or speed restrictions issued by the train dispatcher or control operator. Mandatory directives are:

- Track warrants.
- Track bulletins.

- DTC authority.
- Track and time.
- Track permits.
- Radio speed restrictions.

A mandatory directive restricting a train's movement will not be issued near a point where the restriction applies until the engineer or conductor confirms that the train can comply with the restriction.

Indicate "VOID" on mandatory directive form when:

- Employee reports clear of authority limits,

or

- Mandatory directive is made void

Crew must retain mandatory directives for continuous tour of duty.

Rule Updated Date

April 7, 2010

[^Top](#)

6.12: FRA Excepted Track

On a track designated as "FRA Excepted Track" the following will govern:

- Maximum speed must not exceed 10 MPH.
- No occupied passenger train will be operated.
- No movement will be operated that contains more than five cars placarded according to Hazardous Material Regulations.

Rule Updated Date

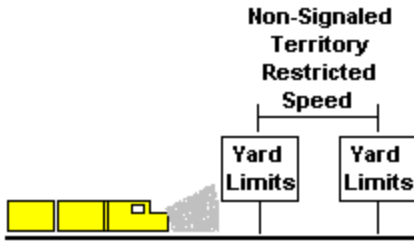
April 7, 2010

[^Top](#)

6.13: Yard Limits

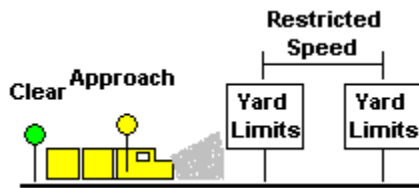
Within yard limits, trains or engines are authorized to use the main track not protecting against other trains or engines. Engines must give way as soon as possible to trains as they approach. Engines must keep posted as to the arrival of passenger trains and must not delay them.

All movements entering or moving within yard limits must be made at restricted speed unless operating under a block signal indication that is more favorable than Approach.

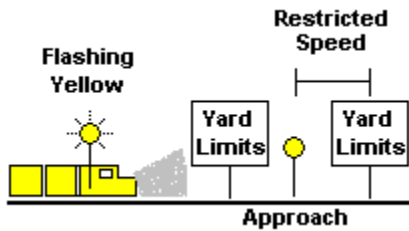


[Diagram A]^

Upon observing or having advance knowledge that a block signal may require restricted speed due to yard limits, if entering or within yard limits, the movement must be at restricted speed at that block signal, or as soon as possible thereafter, consistent with good train handling.



[Diagram B]^



[Diagram C]^

Yard limits remain in effect continuously unless otherwise specified by special instructions or track bulletin.

Against the Current of Traffic

Movements against the current of traffic must not be made unless authorized or protected by track warrant, track bulletin, yardmaster, or other authorized employee.

In CTC Territory

Where yard limits are in effect in CTC territory, the control operator must authorize any movement on the main track. Reverse movements within the same block may be made as outlined in Rule 6.4.1 (Permission for Reverse Movements).

In Track Permit Territory

Where yard limits are in effect in Rule 9.15 (Track Permit) territory, all movements must receive permission from the control operator to enter the main track or to cross over from one main track to another as follows:

- A controlled signal displays a proceed indication;
- A track permit is issued;

or

- Verbal permission is granted if no track permit is in effect. Rule 9.17 (Entering Main Track at Hand Operated or Spring Switch) applies.

Rule Updated Date

April 1, 2015

[^Top](#)

6.14: Restricted Limits

Within restricted limits, trains or engines are authorized to use the main track not protecting against other trains or engines. All movements must be made at restricted speed.

Movements against the current of traffic must not be made unless authorized or protected by track warrant, track bulletin, yardmaster, or other authorized employee.

Rule Updated Date

April 1, 2015

[^Top](#)

6.15: Block Register Territory

Block register territory will be designated in the special instructions. A register labeled "Block Register Territory" will apply only on that designated territory. A train or employee in charge of men or equipment is authorized to occupy block register territory under the following conditions:

- The following information is in the register on the first blank line:

TRAIN, GANG, OR EQUIPMENT IDENTIFICATION	CONDUCTOR OR EMPLOYEE IN CHARGE OF MEN OR EQUIPMENT	DATE	TIME TERRITORY OCCUPIED	TIME TERRITORY CLEARED
A	B	C	D	E

COLUMN	REQUIRED ENTRY
A.....	Enter the train, gang, or equipment identification.
B.....	Enter last name of conductor or employee in charge of men or equipment.
C.....	Enter current date.
D.....	Enter time entry is made in register.
E.....	Enter time the territory was cleared. Then, draw a line through the entire entry. The required exit entry may be completed by any authorized employee.

- If the register indicates the territory is occupied, entry cannot be made on the register until the employee in charge or engineer of each preceding entry has been contacted. When the territory is jointly occupied, movements must be made at restricted speed.

Rule Updated Date

April 7, 2010

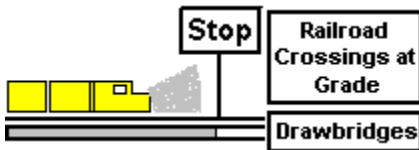
[^Top](#)

6.16: Approaching Railroad Crossings, Drawbridges, and End of Multiple Main Track

Trains and engines must be prepared to stop when they approach railroad crossings at grade, drawbridges, and the end of multiple main track, unless these areas are protected by block or interlocking signals.

Protected by Stop Signs

If stop signs protect these areas, the train must stop before any part of the train or engine passes the stop sign. The train cannot proceed until the route is clear or drawbridge position permits movement.



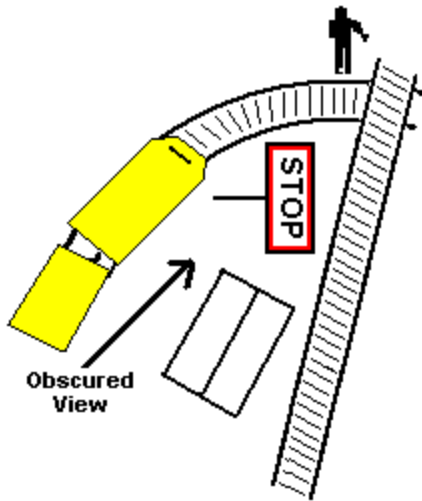
[Diagram A]

Protected by Gate

If a gate is lined against the intended route, trains and engines must stop and remain at least 50 feet from fouling the track on the conflicting route until the gate is changed to the stop position on the conflicting route. Where required, restore gate to its normal position after movement is complete.

Obscured View of Conflicting Route

If a train must stop before entering a railroad crossing at grade and the view on the conflicting route is obscured, a crew member must go ahead of the train and signal from the crossing when it is safe to proceed.



[Diagram B]

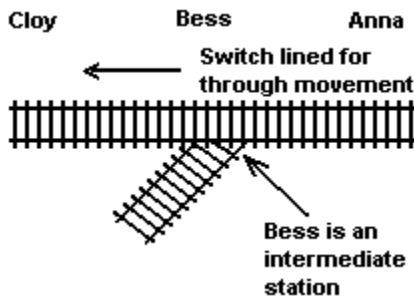
Rule Updated Date

April 7, 2010

[^Top](#)

6.17: Switches at Junctions

The normal position for a junction switch is for through movement on the main track where the junction is an intermediate station.



[Diagram A]

Rule Updated Date

April 7, 2010

[^Top](#)

6.18: Stopping Clear of Crossings and Junctions

At a railroad crossing or junction, a train or engine must not stop, if possible, where it could interfere with train movement on the other track.

Rule Updated Date

April 7, 2010

[^Top](#)

6.19: Flag Protection

A. Flag Protection Not Required

Flag protection is not required against following trains on the same track if:

1. Train is within ABS limits and the rear of the train is protected by at least two block signals or one block signal and one distant signal.
2. Rear of the train is within BRT, CTC, DTC, TWC or interlocking limits.
or
3. General Order or special instructions specify that flag protection is not required.

B. Flag Protection is Required

When flag protection is required against following trains:

1. More than Half the Maximum Timetable Speed

When a train is moving on a main track at or more than half the maximum authorized timetable speed for any train at that location, and the train may be overtaken by a following train, a flagman must decide whether to drop lighted fuseses by considering the following:

- Grade of the track
- Curvature of the track
- Weather conditions
- Sight distance
- Speed of the train relative to a following train

2. Less than Half the Maximum Timetable Speed

When a train is moving on a main track at less than half the maximum authorized timetable speed for any train at that location, a flagman must provide flag protection against following trains on the same track. The flagman must drop off single lighted fuseses at close enough intervals to ensure full protection and not exceed the burning time of the fusee.



[Diagram A]^

3.

Stopped on a Main Track

When a train stops on a main track, a flagman must immediately go back at least 2 miles. Flagman must remain there until stopping a following train or until recalled.

If the flagman is recalled and safety will permit, the flagman must leave a lighted fusee and return to the train. If recalled before reaching the prescribed distance, the flagman must leave a lighted fusee. While returning to the train, the flagman must also place single lighted fusees at intervals shorter than the burning time of the fusee.

When the train departs, a crew member must leave one lighted fusee. In addition, until the train is moving at least half the maximum authorized timetable speed for any train at that location, a crew member must drop off single lighted fusees at intervals shorter than the burning time of the fusee.

Application:

Flagging distance is 2 miles.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

6.20: Equipment Left on Main Track

A. Portion of Train Left on Main Track

When necessary to leave a portion of a train temporarily on the main track, follow this procedure:

- Set a sufficient number of hand brakes to keep the detached portion from moving.
- Provide protection against movements that may enter the main track between the detached portion and the returning front portion unless:
 - The train dispatcher verbally relieves the protection.
 - or
 - The return movement is otherwise authorized.
- Make return movement at restricted speed. However, an engine without cars may return at a higher speed when governed by block signal indication.

B. Other Equipment Left on Main Track

Crews that leave equipment on the main track do not need to provide protection for the equipment if the train dispatcher gives verbal relief.

The train dispatcher may request a crew to report clear of their authority and leave equipment on a main track. Crews that leave equipment on a main track do not need to provide protection for the equipment if the train dispatcher provides relief. The train dispatcher must provide protection for the equipment.

All crews that use the main track at that point must be notified of the equipment location and must move at restricted speed when approaching that location.

Application:

A train must not be left on the main track in non signaled territory unless protected by one of the following:

1. Yard Limits
2. Track Warrants
 - The train dispatcher may request the release of the crew's track warrant and inform crew that protection has been provided.
 - After being informed that protection has been provided, the following procedure must be followed:
 - Crew will state: "(Train ID) is stopped between MP___ and MP___ on main track (Subdivision). Protection has been provided."
 - Dispatcher will state: "(Train ID) that is correct."

A crew member will then release their track warrant.

Rule Updated Date

May 2, 2016

System Special Instructions

Effective Date: May 2, 2016

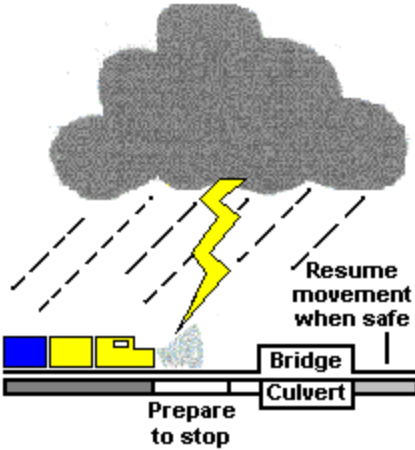
[^Top](#)

6.21: Precautions Against Unusual Conditions

Protect trains and engines against any known condition that may interfere with their safety.

When conditions restrict visibility, regulate speed to ensure that crew members can observe and comply with signal indications.

In unusually heavy rain, storm, or high water, trains and engines must approach bridges, culverts, and other potentially hazardous points prepared to stop. If they cannot proceed safely, they must stop until it is safe to resume movement.



[Diagram A]^

Advise the train dispatcher of such conditions by the first available means of communication.

Add the following application to rule:

Verbally Notified	Track Bulletin or Track Warrant	Procedure to follow
"FF" in effect between _____ and _____, or at location _____.	Flash Flood warning in effect between _____ and _____. Within these limits or specified location be governed by Rule 6.21 and Rule 6.21.2.	Be governed by Rule 6.21 and Rule 6.21.2.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

6.21.1: Protection Against Defects

If any defect or condition that might cause an accident is discovered on tracks, bridges, or culverts, or if any crew member believes that the train or engine has passed over a dangerous defect, the crew member must immediately notify the train dispatcher and provide protection if necessary.

Rule Updated Date

April 7, 2010

[^Top](#)

6.21.2: Water Above Rail

Do not operate trains and engines over tracks submerged in water until the track has been inspected and verified as safe.

Operate engines at 5 MPH or less when water is above the top of the rail. If water is more than 3 inches above the top of the rail, a mechanical department supervisor must authorize the movement.

Rule Updated Date

April 7, 2010

[^Top](#)

6.21.3: Track Obstruction/Unusual Conditions

When a train is instructed by the Train Dispatcher in the words, "BETWEEN (location) AND (location) BE GOVERNED BY RULE 6.21.3", within specified limits, train must proceed at a speed which will permit stopping short of slide, rock, washout or debris on track.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

6.22: Maintaining Control of Train or Engine

Crew members must consider train or engine speed, grade conditions, and air gauge indications to determine that the train or engine is being handled safely and is under control. If necessary, take immediate action to bring the train or engine under control.

Rule Updated Date

April 7, 2010

[^Top](#)

6.23: Emergency Stop or Severe Slack Action

When a train or engine is stopped by an emergency application of the brakes or severe slack action occurs while stopping, take the following actions:

Obstruction of Main Track or Controlled Siding

If an adjacent main track or controlled siding may be obstructed, immediately:

- Warn other trains by radio, stating the exact location and status of the train and repeat as necessary.
- Place lighted fusee on adjacent tracks.
- Notify the train dispatcher or control operator and, when possible, foreign line railroads if necessary.

Warning to other movements is no longer necessary when:

- It is known that adjacent tracks are not obstructed.
or
- The train dispatcher or control operator advises the crew that protection is provided on adjacent tracks.

Inspection of Cars and Units

- All cars, units, equipment, and track must be inspected as outlined in the:

- Special Instructions.
- Air Brake and Train Handling Rules.

Train on Adjacent Track

A train on an adjacent track that receives radio notification must pass the location specified at restricted speed and stop short of any portion of the stopped train fouling their track. When advised that the track is clear and it is safe to proceed, this restriction no longer applies.

Obstruction of a Main Track or Controlled Siding - Application:

To notify the train dispatcher or control operator, use the emergency call-in feature if available.

Inspection of Cars and Units:

Inspect the train on each side of all cars, units, equipment, and track to ensure they are in a safe condition. Make sure the marker is attached to the designated rear car. Before proceeding check the proper positioning of all wheels on the rail. If physical characteristics prevent a complete visual inspection, inspect as much of the train as possible. The train may then be moved, but may not exceed 5 MPH for the distance necessary to complete the inspection, and must be stopped immediately if excessive power is required to start or keep the train moving. When an inspection is required, the entire train must be inspected. When any of the following conditions are met, crews are relieved of visual inspection required by an emergency application when device located at rear of train immediately indicates that brake pipe pressure has been restored.

- Solid loaded bulk commodity trains.
- Train is made up entirely of double stack well cars and/or five-platform articulated single-level spine cars.
- Train speed is above 20 MPH.
or
- Train is 5000 tons or less.

An inspection on any train must be made if:

- Train is a key train.
- Severe slack action was experienced.

Train must be stopped immediately and inspected, if excessive power is required to start or keep the train moving.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

6.24: Movement on Double Track

On double track, trains must keep to the right unless otherwise instructed.

Rule Updated Date

April 7, 2010

[^Top](#)

6.25: Movement Against the Current of Traffic

Movements against the current of traffic must be authorized by track bulletin or track warrant, except as provided by:

- Rule 6.13 (Yard Limits)
 - Rule 6.14 (Restricted Limits)
 - Rule 9.15 (Track Permits)
 - Rule 9.17.1 (Signal Protection in ABS by Lining Switch).
- OR
- Rule 16.1 (Authority to Enter DTC Limits)

Movements must approach block and interlocking signals prepared to stop unless signals indicate proceed.

When a facing point movement will be made over a spring switch, comply with Rule 8.9.1 (Testing Spring Switch).

Rule Updated Date

April 7, 2010

[^Top](#)

6.26: Use of Multiple Main Tracks

Multiple main tracks will be designated by name or number. When necessary, track use will be indicated in the special instructions.

Application:

Multiple main tracks are numbered as follows:

- On east-west subdivisions, track numbers increase from north to south, and the northern most track is No. 1.
- On north-south subdivisions, track numbers increase from west to east, and the western most track is No. 1.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

6.27: Movement at Restricted Speed

When required to move at restricted speed, movement must be made at a speed that allows stopping within half the range of vision short of:

- Train.
- Engine.
- Railroad car.
- Men or equipment fouling the track.
- Stop signal.
- or
- Derail or switch lined improperly.

When a train or engine is required to move at restricted speed, the crew must keep a lookout for broken rail and not exceed 20 MPH.

Comply with these requirements until the leading wheels reach a point where movement at restricted speed is no longer required.

Application:

Train and / or engine speed must allow for movement to stop short of the obstructions listed consistent with good train handling.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

6.28: Movement on Other than Main Track

Except when moving on a main track or on a track where a block system is in effect, trains or engines must move at a speed that allows them to stop within half the range of vision short of:

- Train.
- Engine.
- Railroad car.
- Men or equipment fouling the track.
- Stop signal.
- or
- Derail or switch lined improperly.

Application:

Train and/or engine speed must allow for movement to stop short of the obstructions listed consistent with good train handling.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

6.28.1: Sidings of Assigned Direction

Do not use sidings of an assigned direction in the opposite direction unless authorized by the train dispatcher.

Rule Updated Date

April 7, 2010

[^Top](#)

6.28.2: Stopping Clear in Siding

When possible, a train entering a siding must not stop until the entire train is clear of the main track.

Rule Updated Date

April 7, 2010

[^Top](#)

6.28.3: Cars or Equipment Left on Siding

Avoid leaving cars or equipment on sidings unless authorized by the train dispatcher, except in an emergency. In this case, notify the train dispatcher immediately.

Rule Updated Date

April 7, 2010

[^Top](#)

6.29: Inspecting Trains

Rule Updated Date

April 7, 2010

[^Top](#)

6.29.1: Inspecting Passing Trains

Employees must inspect passing trains. If they detect any of the following conditions, they must notify crew members on the passing train by any available means:

- Overheated journals
- Sticking brakes
- Sliding wheels
- Wheels not properly positioned on the rail
- Dragging equipment
- Insecure contents
- Signs of smoke or fire
- Headlight or marker improperly displayed
- Any other dangerous condition

When possible, employees inspecting the passing train must advise crew members of the condition of their train.

When possible, a crew member on the engine of the train being inspected must notify a crew member on the rear of the train when the train is being inspected by other employees.

Ground Inspections

When a train is stopped and is met or passed by another train, crew members must inspect the passing train. The trainman's inspection will be made from the ground if there is a safe location. When stopped, the crew member must detrain, on the field side, the side away from the adjacent main track.

Inspection will be made from the cab of the locomotive:

- During snow and ice conditions that may cause slippery conditions underfoot when getting on or off.
or
- When stopped at a location where it is unsafe to detrain or there is an adjacent main track on each side of the train (i.e. on track 2 in 3 main track territory).

Trackside Warning Detectors and Inspections

Crew members must be aware of trackside warning detectors and signals from persons inspecting their train. Stop the train immediately for an inspection when any of the following conditions exist:

- A crew member receives a stop signal.
- A trackside warning detector indicates a train defect.
or
- A crew member is notified of a dangerous condition.

Movement must not proceed until it is safe.

Application:

When a trackside warning detector indicates a train defect, stop train according to instructions contained in Item 13.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

6.29.2: Train Inspections by Crew Members

When a walking inspection of the train is required, and physical characteristics prevent a complete train inspection, inspect as much of the train as possible. The train may then be moved, but may not exceed 5 MPH for the distance necessary to complete the inspection.

While their train is moving, crew members must inspect it frequently and look for indications of defects in the train, especially when rounding curves.

When inspecting their train, crew members must observe the train closely for any of the following:

- Overheated journals
- Sticking brakes
- Sliding wheels
- Wheels not properly positioned on the rail
- Dragging equipment
- Insecure contents
- Signs of smoke or fire
- Any other dangerous condition

Crew members who discover defects while the train is moving must stop the train promptly and correct any defects, if possible. If the defective car must be set out, they must not attempt to move the car to the setout point unless it is safe to do so.

When a car is set out because of an overheated journal, any fire must be completely extinguished and precautions taken to prevent further ignition.

Rule Updated Date

April 7, 2010

[^Top](#)

6.30: Receiving or Discharging Passengers

A. Passenger Crew Responsibilities

When approaching a station to receive or discharge passengers, determine if the train is routed on the track nearest the station platform. If other trains could pass on a main track or controlled siding between the passenger train and the station platform:

- Communicate with the train dispatcher to determine whether any trains are approaching between the train and the station platform.
- Do not make the station stop until assured that trains will not pass between the train and the station platform.

If unable to communicate with the train dispatcher, the station stop may be made after the crew determines that no trains are approaching on the track between the train and the station platform. Before making the station stop, the conductor must assign crewmember responsibilities to ensure passenger safety. If during the station stop a train is seen or heard approaching, crewmembers must take immediate action to keep passengers from fouling the affected track.

B. Responsibilities of Approaching Movements

When notified that a passenger train will be at a station, do not pass between station platform and a passenger train until assured that all passengers and employees have cleared the track between the passenger train and the station platform. Movement may then pass when preceded by an employee walking ahead of the movement.

C. Other than Main Track Movements

A movement must not pass between a passenger train and the station platform being used unless safeguards are provided.

Rule Updated Date

April 7, 2010

[^Top](#)

6.31: Maximum Authorized Speed

All crew members are responsible for knowing and not exceeding the maximum authorized speed for their train. Passenger speed is applicable only to trains consisting entirely of passenger equipment.

When possible, a crew member must promptly notify the train dispatcher of any condition that will delay or prevent the train from making usual speed.

Rule Updated Date

May 1, 2014

[^Top](#)

6.31.1: Permanent Speed Restrictions

Permanent speed restrictions must not be exceeded until the rear of the train clears the limits of the restriction, unless otherwise specified.

Rule Updated Date

April 7, 2010

[^Top](#)

6.32: Road Crossings

Rule Updated Date

April 7, 2010

[^Top](#)

6.32.1: Cars Shoved, Kicked, or Dropped

When cars are shoved or kicked over road crossings at grade (except those used exclusively by railroad employees), a crew member must be on the ground at the crossing to warn traffic until the crossing is occupied. Make any movement over the crossing as directed from that crew member. Such warning is not required when gates are known to be in the fully lowered position.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

6.32.2: Automatic Warning Devices and Crossings That Require Additional Precautions

Under any of the following conditions, a movement must not foul a crossing equipped with automatic warning devices until the device has been operating long enough to provide warning and the crossing gates, if equipped, are fully lowered:

- Train, engine, and other such movements consisting of 12 physical axles or less. However, Self Propelled Engineering Department Track Geometry cars will be governed by Engineering Department instructions.
- Movement has stopped within 3,000 feet of the crossing.
- Movement is within 3,000 feet of the crossing and speed has increased by more than 5 MPH.
- Movement is closely following another movement.
- Movement is on other than the main track or siding.
or
- Movement enters a main track or siding within 3,000 feet of the crossing.

Employees must observe all automatic warning devices and report any that are malfunctioning by the first available means of communication to the:

- **Train dispatcher**
or
- **Grade Crossing Safety Hot Line (800-848-8715).**

Notify all affected trains as soon as possible.

If equipped, when the white power-on light on the exterior of the signal house is not lit or when a strobe light on the exterior of the signal house is flashing, immediately notify the train dispatcher or Grade Crossing Safety Hot Line.

A. Automatic Warning Devices Malfunctioning

Use the following procedures to properly complete movement over the crossing:

Procedure 1:

Unless otherwise instructed by signal employee in charge, train must stop before occupying the crossing. A crew member must be on the ground at the crossing to warn highway traffic. The train may proceed over the crossing as directed by that crew member. When leading end of movement completely occupies the crossing, proceed at maximum authorized speed.

Procedure 2:

Unless otherwise instructed by signal employee in charge, train must approach crossing prepared to stop before entering crossing. If automatic warning devices are not working comply with Procedure 1. If devices are seen to be working, or when advised by the train dispatcher, track bulletin or track warrant, train may proceed through the crossing not exceeding 15 miles per hour. When leading end of movement completely occupies the crossing, proceed at maximum authorized speed.

Note: Crossing with broken gate(s) is considered as having working devices when the balance of the automatic warning devices are seen to be working.

Movement when notified of warning devices that are malfunctioning or crossings that require additional precautions:

When notified verbally, by track bulletin or track warrant to comply with Procedure:	Required Action:
XG or XS	Procedure 1
XH	Procedure 2
XC or XI	The train may proceed over the crossing not exceeding 15 mph. When leading end of movement completely occupies the crossing, proceed at maximum authorized speed.

When advised by the train dispatcher or proper authority that the warning devices have been repaired, these restrictions no longer apply.

Note: When a crew is notified (e.g. from another train crew) that a crossing has an activation failure or a malfunction, the appropriate procedure must be followed.

B. Whistle for Crossing

When notified that automatic warning devices are malfunctioning, sound whistle signal 5.8.2(7) regardless of any prohibition.

Application:

Crossing Warning Device Malfunction Sign

Where a Crossing Warning Device Malfunction sign (System Special Instructions Item 22) is located next to a road crossing, movement must stop at the sign and **Procedure 1** applies.

"STOP" Sign

Where a STOP sign is located next to a road crossing, movement must stop at the STOP sign. Movement may proceed only after automatic crossing warning devices have been operating long enough to provide warning and crossing gates, if equipped, are fully lowered. If automatic crossing warning devices fail to operate, comply with Procedure 1.

XG – Automatic Crossing Device has an activation failure.

XH – Automatic Crossing not working properly.

XS – Automatic Crossing device has been disabled.

XC – Cars have been left closer than the required distance from the crossing.

XI – Due to broken crossbuck, stop sign, vegetation, etc.

Rule Updated Date

May 2, 2016

System Special Instructions

Effective Date: May 2, 2016

[^Top](#)

6.32.3: Providing Warning for Adjacent Tracks

When practical, position an employee on the ground to warn traffic against movements approaching on adjacent tracks, under either of the following conditions:

- A train or cut of cars is parted closer than 250 feet from a road crossing.
- The head-end of a train is stopped, other than a passenger station stop, closer than 250 feet from a road crossing.

Rule Updated Date

May 10, 2011

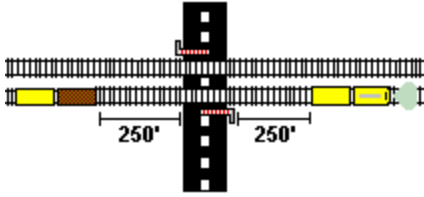
[^Top](#)

6.32.4: Clear of Crossings and Signal Circuits

Leave cars, engines, or equipment clear of road crossings and crossing signal circuits.

When practical, avoid leaving cars, engines, or equipment standing closer than 250 feet from the road crossing when there is an adjacent track.

When cars, engines, or equipment are left on a siding or a main track closer than the required distance, the train dispatcher must be notified.



[Diagram A]^

Application:

Referring to 250 feet:

- In Illinois, the distance is 500 feet.
- In Wisconsin, the distance is 330 feet.
- In Arkansas and Louisiana the distance is 300 feet.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

6.32.5: Actuating Automatic Warning Devices Unnecessarily

Avoid actuating automatic warning devices unnecessarily by leaving switches open or permitting equipment to stand within the controlling circuit. If this cannot be avoided and if the signals are equipped for manual operation, a crew member must manually operate the signal for movement of traffic. A crew member must restore signals to automatic operation before a train or engine occupies the crossing or before it leaves the crossing.

Rule Updated Date

April 7, 2010

[^Top](#)

6.32.6: Blocking Public Crossings

When practical, a standing train or switching movement must avoid blocking a public crossing longer than 10 minutes.

Rule Updated Date

April 7, 2010

[^Top](#)

6.32.7: Road Crossings within Intermodal and Automotive Facilities

Movements over crossings within intermodal and vehicle loading/unloading facilities will be made as follows:

- Shoving movements and locomotive consist movements, when not controlled from the cab nearest the direction of travel, must be protected by an employee in position at the crossing to warn traffic until the crossing is occupied. Make movement over the crossing only after warning has been provided.
- Movements with the engine in the lead, when controlled from the cab nearest the direction of travel, must ring the engine bell when approaching crossing. In addition, sound whistle as a warning when vehicles are stopped, closely approaching or crossing view is obstructed.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

[Union Pacific Rules](#)

UPRR - General Code of Operating Rules

7.0: SWITCHING

- [7.1: Switching Safely and Efficiently](#)
- [7.2: Communication Between Crews Switching](#)
- [7.3: Additional Switching Precautions](#)
- [7.4: Precautions for Coupling or Moving Cars or Engines](#)
- [7.4.1: Remote Control Couplings](#)
- [7.5: Testing Hand Brakes](#)
- [7.6: Securing Cars or Engines](#)
- [7.7: Kicking or Dropping Cars](#)
- [7.7.1: Gravity Switch Moves](#)
- [7.8: Coupling or Moving Cars on Tracks Where Cars are Being Loaded or Unloaded](#)
- [7.9: Switching Passenger or Occupied Outfit Cars](#)
- [7.10: Movement Through Gates or Doorways](#)
- [7.11: Charging Necessary Air Brakes](#)
- [7.12: Movements Into Spur Tracks](#)
- [7.13: Protection of Employees in Bowl Tracks](#)

7.1: Switching Safely and Efficiently

While switching, employees must work safely and efficiently and avoid damage to contents of cars, equipment, structures, or other property.

Do not leave equipment standing where it will foul equipment on adjacent tracks or cause injury to employees riding on the side of a car or engine.

On tracks where clearance point is indicated, leave equipment beyond the clearance point.

If clearance point is not indicated or visible, determine the clearance point by standing outside the rail of adjacent track and extend arm towards the equipment. When unable to touch the equipment, leave equipment at least an additional 50 feet into the track to ensure equipment is beyond the clearance point.

Equipment may be left on a:

- Main track, fouling a siding track switch, when the switch is lined for the main track.
 - Siding, fouling a main track switch, when the switch is lined for the siding.
 - Yard switching lead, fouling a yard track switch when the switch is lined for the yard switching lead.
- or
- Industry track beyond the clearance point of the switch leading to the industry.

Rule Updated Date

April 7, 2010

[^Top](#)

7.2: Communication Between Crews Switching

To avoid injury or damage where engines may be working at both ends of a track or tracks, crews switching must have a clear understanding of movements to be made.

Rule Updated Date

April 7, 2010

[^Top](#)

7.3: Additional Switching Precautions

The following equipment must not be unnecessarily switched or couplings made so as to damage the equipment or load:

- Passenger or outfit cars
- Intermodal or TOFC cars
- Cabooses
- Loaded Autoracks
- Cars containing livestock
- Open top loads subject to shifting

The following equipment must not be cut off in motion or struck by any car moving under its own momentum:

- Passenger cars
- Outfit cars
- High-value loads
- Engines
- Loaded-depressed-center flat cars
- Cars loaded with modular housing units
- Articulated and solid drawbar-connected cars with more than two car bodies. However, when empty, these cars may be kicked but not humped.
- Scale test cars.
- Roadway equipment.

Note: Loaded Autoracks may be humped, but must otherwise be shoved to rest.

Rule Updated Date

May 2, 2016

System Special Instructions

Effective Date: May 2, 2016

[^Top](#)

7.4: Precautions for Coupling or Moving Cars or Engines

Before coupling to or moving cars or engines, verify that the cars or engines are properly secured and can be coupled and moved safely.

Make couplings at a speed of not more than 4 MPH. After coupling, engine direction must be changed to stretch slack to ensure that coupling(s) have been made. Before beginning shoving movement, ensure that all couplings have been stretched.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

7.4.1: Remote Control Couplings

When using a remote control locomotive in "pitch and catch" operations to make a coupling, the RCO located at the coupling must be the primary operator. This does not prevent a utility employee, not equipped as a RCO, from making the coupling.

Make couplings at a speed of not more than 2 MPH. Remote Control Operator must use speed selection of not greater than "Couple".

Do not use "Coast" and independent brake override to make car couplings.

Note: When spotting cars at an industry that requires precision spotting of the cars the independent brake override may be used.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

7.5: Testing Hand Brakes

Employees must know how to operate the type of brakes they are using. When hand brakes must control or prevent car movement, test the brakes to ensure that they are operating properly before using them. If hand brake is not operational, attach a bad order tag to hand brake wheel or lever.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

7.6: Securing Cars or Engines

Do not depend on air brakes to hold a train, engine, or cars in place when left unattended. Apply a sufficient number of hand brakes to prevent movement. If hand brakes are not adequate, block the wheels.

When the engine is coupled to a train or cars standing on a grade, do not release the hand brakes until the air brake system is fully charged.

When cars are moved from any track, apply enough hand brakes to prevent any remaining cars from moving.

Rule Updated Date

April 7, 2010

[^Top](#)

7.7: Kicking or Dropping Cars

Kicking or allowing cars to roll under their own momentum is only permitted at authorized locations and when it will not endanger employees, equipment, or contents of cars. This does not apply to crews actively humping cars.

When kicking cars, crew member must ensure that cars kicked are clear of and will remain clear of next track to be entered before track is fouled.

Dropping cars is prohibited.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

7.7.1: Gravity Switch Moves

Unless otherwise restricted, a gravity switch move may be utilized where cars must be repositioned on the opposite end of the engine. Not more than five cars may be handled at one time.

When making a gravity switch move:

- Hand brakes must be tested to ensure proper operation.
- Sufficient hand brakes must be manned by crew members to ensure that the movement can be controlled and stopped.
- Using the hand brake on cars with shiftable loads must be avoided when practicable.
- Cars must not be allowed to couple to other equipment.

A gravity switch may only be made where authorized by "Superintendent Bulletin" and manned hand brake must be located on the trailing end of the trailing car in the direction of movement.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

7.8: Coupling or Moving Cars on Tracks Where Cars are Being Loaded or Unloaded

Before coupling to or moving cars on tracks where cars are being loaded or unloaded, crew members must be sure that all of the following have been removed or cleared:

- Persons in, on, or about cars
- Platforms
- Boards
- Tank car couplings and connections
- Conveyors
- Loading or unloading spouts and similar appliances or connections
- Vehicles
- Other obstructions

In addition:

- Be careful to avoid damage to freight of partly loaded cars.
- Do not handle cars that are improperly or unevenly loaded if load could shift or fall from the car, or if the car could derail or overturn.
- Return any car placed for loading or unloading to the location it was found if it has not been released for movement.

- Do not pull empty cars from an unloading facility until cables, straps, and other devices used to secure lading are secured and any major accumulation of debris is removed by the customer.
- Ensure that plug-type and swinging doors on cars are closed or secured. However, crew members must not attempt to close those doors. If plug door is found open enroute, car may continue in the train to the next location where mechanical forces are available to close door.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

7.9: Switching Passenger or Occupied Outfit Cars

Before switching passenger equipment or occupied outfit cars:

- Couple the air hoses.
- Fully charge the brake system.
- Use the automatic brake valve when switching.

When coupling passenger or outfit cars:

- Stop the movement approximately 50 feet before the coupling is made.
- Have an employee on the ground direct the coupling.
- Ensure couplers are fully compressed and stretched to ensure that knuckles are locked before making:
 - Air connections
 - Steam connections
 - Electrical connections

Rule Updated Date

April 7, 2010

[^Top](#)

7.10: Movement Through Gates or Doorways

Before moving engines, cars, or other equipment through gates, doorways, or similar openings, stop to ensure that the gates, doorways, or openings are completely open and secure. When overhead or side clearances are close, make sure movement is safe. Do not ride on the side of a car, engine, or other equipment when moving through gates, doorways, or similar openings.

Rule Updated Date

April 1, 2015

[^Top](#)

7.11: Charging Necessary Air Brakes

Do not handle cars without charging the air brake system, unless the cars can be handled safely and stopped within the required distance. If necessary, couple the air hoses and charge the brake systems on a sufficient number of cars to control movement.

Rule Updated Date

April 7, 2010

[^Top](#)

7.12: Movements Into Spur Tracks

When shoving cars into a spur track, control movement to prevent damage at the end of the track, and do the following:

- Stop movement 150 feet from the end of the track.
- Apply hand brakes, when necessary, to control slack.
- Have a crew member precede any further movement when it can be done safely.
- Move only on the crew member's signal.
- Stop movement short of end of track, bumper, chock, etc., unless it is necessary to shove cars to the end of the track to properly spot cars for the industry. When necessary, use extreme caution to avoid damage to equipment, track or structures.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

7.13: Protection of Employees in Bowl Tracks

During humping operations, before a train or yard crew member performs any work activities between bowl tracks , protection must be provided against cars released from the hump into the bowl track **that will be fouled** as follows:

- The employee requesting protection must notify the employee controlling the switches that provide access from the hump to the bowl track where work will occur.
- After being notified, the switch controller must line any remote control switch against movement to the affected bowl track and locking or blocking device must be applied to the switch control.

- The switch controller must then notify the employee that protection is provided. Protection will be maintained until the switch controller is advised that work is complete and employee is clear of the bowl track and protection is no longer required.

Rule Updated Date

May 2, 2016

System Special Instructions

Effective Date: May 2, 2016

[^Top](#)

Union Pacific Rules

UPRR - General Code of Operating Rules

8.0: SWITCHES

- [8.1: Hand Operation of Switches](#)
- [8.2: Position of Switches](#)
- [8.3: Main Track Switches](#)
- [8.4: Lining Main Track Switch](#)
- [8.5: Not Used](#)
- [8.6: Restoring Switch to Normal Position](#)
- [8.7: Clear of Main Track Switches](#)
- [8.8: Switches Equipped with Locks, Hooks, or Latches](#)
- [8.9: Movement Over Spring Switches](#)
 - [8.9.1: Testing Spring Switch](#)
 - [8.9.2: Trailing Through and Stopping on a Spring Switch](#)
 - [8.9.3: Hand Operating a Spring Switch Before Making a Trailing Movement](#)
 - [8.9.4: During Snow or Ice Storms](#)
 - [8.9.5: Spiking Spring Switch](#)
 - [8.9.6: Approaching a Spring Switch in Non-Signaled Territory](#)
- [8.10: Switch Point Indicator](#)
- [8.11: Switches in Sidings](#)
- [8.12: Hand-Operated Crossover Switches](#)
- [8.13: Scale Track Switches](#)
- [8.14: Conflicting Movements Approaching Switch](#)
- [8.15: Switches Run Through](#)
- [8.16: Damaged or Defective Switches](#)
- [8.17: Avoid Sanding over Movable Parts](#)
- [8.18: Variable Switches](#)
- [8.19: Automatic Switches](#)
 - [8.19.1: Radio Controlled Switches](#)
- [8.20: Derail Location and Position](#)

8.1: Hand Operation of Switches

Spring or dual control switches operated by hand are considered hand-operated switches, and all rules governing hand-operated switches apply.

Rule Updated Date

April 7, 2010

[^Top](#)

8.2: Position of Switches

The employee operating the switch or derail is responsible for the position of the switch or derail in use. Movement must not foul an adjacent track until the hand-operated switch is properly lined.

Do not operate a switch that is tagged. If the switch is spiked, do not remove the spike unless authorized by the same craft or group that placed it.

Employees operating switches and derails must make sure:

- The switches and derails are properly lined for the intended route.
- The points fit properly and the target, if so equipped, corresponds with the switch's position.
- After locking a switch or derail, they test the lock to ensure it is secured.
- When the operating lever is equipped with a latch, they do not step on the latch to release the lever except when operating the switch.
- The switch is not operated while equipment is fouling, standing on, or moving over the switch.
- When equipment has entered a track, the switch to that track is not lined away until the equipment has passed the clearance point of the track.

When possible, crew members on the engine must see that the switches and derails near the engine are properly lined.

Rule Updated Date

April 1, 2015

[^Top](#)

8.3: Main Track Switches

The normal position of a main track switch is for main track movement, and it must be lined and locked in that position. At points where double track begins, the normal position of a spring switch is for movement with the current of traffic.

However, the main track switch may be left open:

- In CTC territory within track and time limits.
- When attended by a crew member or switch tender.
- During switching operations when it is certain that no other train or engine will pass over the switch.
- For another train or engine when the switch is attended by a member of that crew.
- Within ABS limits when instructed by the train dispatcher at:
 - The entering switch of a siding in Rule 9.14 (Movement with the Current of Traffic) territory.
 - Either switch of a siding in Rule 16.1 (Authority to Enter DTC Limits) territory.

- Within TWC territory when authorized by track warrant. Track warrant protection must be provided for this condition. The switch must not be considered restored to normal position until the train dispatcher is notified by an employee at that location.
or
- Within ABS-TWC, ABS-DTC, or Rule 9.14 (Movement with the Current of Traffic) territory at the entering switch of a siding after the following has been done:
 1. Communication has been established between crews of trains meeting or passing.
 2. An understanding has been reached that the train on the main track will stop and restore the switch to the normal position. A crew member must not report clear of the limits until it is known the switch is lined and locked in the normal position.

On main track switches (if equipped), the target will be red if the switch is lined in other than its normal position.

Before leaving the location where a hand-operated main track switch was operated:

- Crew members must confirm the position of the switch with each other.
- Engineering Department employees granted authority to enter working limits must confirm the position of the switch with the employee in charge or a designated employee who will notify the employee in charge.

Rule Updated Date

April 7, 2010

[^Top](#)

8.4: Lining Main Track Switch

When an employee lines the switch to let a train enter or leave the main track, the employee must then go to the opposite side of the main track and not return to the switch stand until movement is complete. If unable to go to the opposite side of the track, the employee must stand at least 20 feet from the switch stand.

Rule Updated Date

April 7, 2010

[^Top](#)

8.5: Not Used

Rule Updated Date

May 29, 2015

[^Top](#)

8.6: Restoring Switch to Normal Position

An employee getting off moving equipment to return the main track switch to normal position must, when possible, get off the equipment on the opposite side from the switch stand.

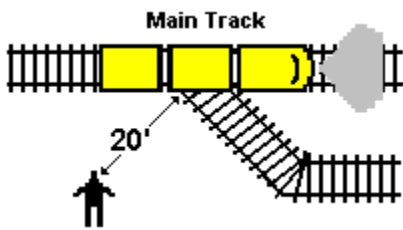
Rule Updated Date

April 7, 2010

[^Top](#)

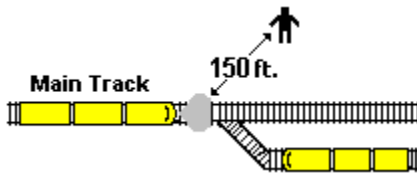
8.7: Clear of Main Track Switches

Except in switching movements, when a train or engine is approaching or passing on a main track, employees must not go nearer than 20 feet to any main track switch.



[Diagram A]

When a train or engine that will be met or passed is on a siding or other track, the employee attending the switch must be in a safe location. The employee must not be nearer than 150 feet, if possible, from the switch when the train is closely approaching and passing.



[Diagram B]

Inspecting Hand-Operated Switches in Non-Signaled Territory

In non-signaled territory, if the expected train is not closely approaching, a crew member will inspect facing point, hand-operated switches the train will pass over to determine that the:

- Switches are lined for the intended route.
- Switch points fit properly.
- Switch lever is secured.

Rule Updated Date

April 7, 2010

[^Top](#)

8.8: Switches Equipped with Locks, Hooks, or Latches

When not in use, switches must be locked, hooked, or latched if so equipped. Before making movements in either direction over these switches, make sure the switch is latched or secured by placing the lock or hook in the hasp. However, when making train movements in facing point direction, lock the switches equipped with a lock.

Replace any missing or defective switch locks. If they cannot be replaced, report the condition at once to the train dispatcher, yardmaster, or supervisor in charge, and spike the switch if possible.

Rule Updated Date

April 7, 2010

[^Top](#)

8.9: Movement Over Spring Switches

Spring switches are identified by the letters S or SS, special targets, signs, and/or lights.

Rule Updated Date

April 7, 2010

[^Top](#)

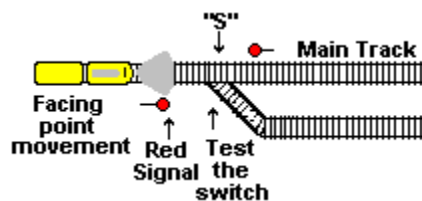
8.9.1: Testing Spring Switch

A crew member tests the switch by lining the switch over and back by hand and examining the switch points to see that they fit properly.

Before a train or engine makes a facing point movement over a spring switch, the switch must be tested when any of the following conditions exist:

1. A block signal governing movement over the switch indicates:

- Stop.
 - Stop and Proceed.
- or
- Restricted Proceed.



[Diagram A]

2. A switch point indicator protecting the switch indicates Stop and Inspect Switch.

or

3. The switch is not protected by a block signal or switch point indicator.

The switch does not need to be tested if it has been lined for the diverging route or written instructions advise the crew that the spring switch has been spiked.

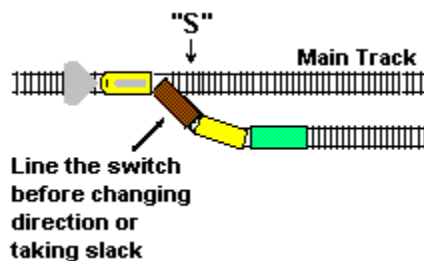
Rule Updated Date

April 7, 2010

[^Top](#)

8.9.2: Trailing Through and Stopping on a Spring Switch

A train or engine trailing through and stopping on a spring switch must control the slack. A crew member must line the switch by hand before the train or engine can change direction or take slack.



[Diagram A]

Rule Updated Date

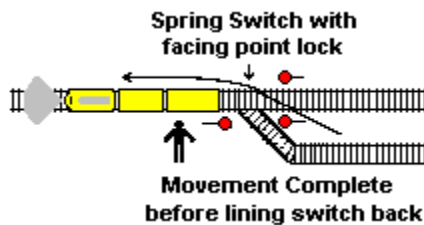
April 7, 2010

[^Top](#)

8.9.3: Hand Operating a Spring Switch Before Making a Trailing Movement

A. With Facing Point Lock

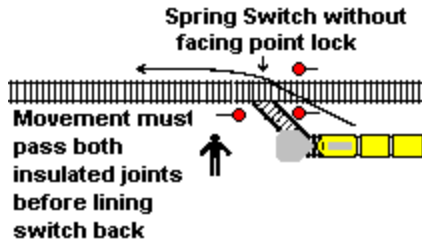
When a train is stopped by a signal governing trailing movement through a spring switch and the switch is equipped with a facing point lock, operate the switch by hand. Do not return the switch to normal position until after movement is complete.



[Diagram A]

B. Without Facing Point Lock

Before a train makes a trailing movement through a spring switch not equipped with a facing point lock, and only hand operation can establish block signal protection, line the switch for the intended route. Return the switch to normal position after leading wheels have passed both insulated joints.



[Diagram B]

Rule Updated Date

October 26, 2012

[^Top](#)

8.9.4: During Snow or Ice Storms

During snow storms, ice storms, or other conditions that may prevent a spring switch from functioning properly, avoid making a trailing movement through the spring switch until the switch has been lined by hand for the movement.

Rule Updated Date

April 7, 2010

[^Top](#)

8.9.5: Spiking Spring Switch

A spring switch that is spiked must be protected.

Rule Updated Date

April 7, 2010

[^Top](#)

8.9.6: Approaching a Spring Switch in Non-Signaled Territory

A train in non-signaled territory must approach the facing points of a spring switch prepared to stop until:

- A switch point indicator shows that the switch is properly lined.
- or**
- A distant signal displays clear.

Rule Updated Date

April 7, 2010

[^Top](#)

8.10: Switch Point Indicator

Aspect	Indication
Green	Switch points fit properly in normal position.
Yellow	Switch points fit properly in reverse position.
Red or Dark	Stop and inspect switch.

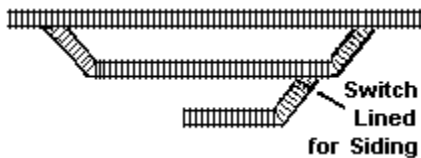
Rule Updated Date

April 7, 2010

[^Top](#)

8.11: Switches in Sidings

The normal position of switches connecting any track, except the main track, to a siding is lined and locked or secured for movement on the siding.



[Diagram A]

Rule Updated Date

April 7, 2010

[^Top](#)

8.12: Hand-Operated Crossover Switches

The normal position of crossover switches is for other than crossover movement. The crossover switches must be left lined in normal position, except when they are in use for crossover movements. Both switches of a crossover shall be properly lined before equipment begins a crossover movement. A crossover movement shall be completed before either switch is restored to normal position, except when one crew is using both tracks connected by the crossover during continuous switching operations.

In Rule 6.14 (Restricted Limits), Rule 6.28 (Movement on Other than Main Track) or non-signaled Rule 6.13 (Yard Limits) territory, crossover switches may be left out of correspondence while providing blue signal or inaccessible track protection. When protection is no longer required, the crossover switches connected to a main track or siding must be left lined for other than crossover movement. Crossover switches not connected to a main track or siding must be left in a corresponding position.

In signaled territory, crossover switches may be out of correspondence while performing maintenance, testing or inspection.

Rule Updated Date

April 7, 2010

[^Top](#)

8.13: Scale Track Switches

When scales are not in use, line switches for dead rails where provided.

Rule Updated Date

April 7, 2010

[^Top](#)

8.14: Conflicting Movements Approaching Switch

When conflicting movement is closely approaching a switch, the track must not be fouled or the switch operated. Except at a spring switch, trains must not foul a main track or signaled track or pass beyond an insulated joint at the clearance point until the switch connected with the movement is properly lined.

Crossover switches must not be unlocked or lined for crossover movement when another movement is approaching or passing over either switch.

Rule Updated Date

April 7, 2010

[^Top](#)

8.15: Switches Run Through

Do not run through switches, other than spring switches or variable switches. If a rigid type switch is run through, it is unsafe and must be protected by spiking the switch, unless a trackman or other competent employee takes charge.

An engine or car that partially runs through a switch must continue movement over the switch. The engine or car must not change direction over a damaged switch until it has been spiked or repaired.

Rule Updated Date

April 7, 2010

[^Top](#)

8.16: Damaged or Defective Switches

Report a switch that is damaged or defective to the train dispatcher, yardmaster, or supervisor in charge. Tag the switch, spike it if necessary, unless trackman or other employee takes charge. If the switch cannot be made safe, provide protection at once.

Rule Updated Date

April 7, 2010

[^Top](#)

8.17: Avoid Sanding over Movable Parts

When possible, avoid using sand over movable parts of an interlocking, retarders, spring switches, variable switches, or power-operated switches.

Rule Updated Date

April 7, 2010

[^Top](#)

8.18: Variable Switches

Trailing point movements may be made over a variable switch from either track, regardless of the position of the switch points.

When making a trailing point movement and the switch is not lined for such movement, make sure all wheels of the leading car or unit clear the switch points before changing direction.

During snow storms, ice storms, or other conditions that may prevent a variable switch from functioning properly, avoid making a trailing point movement through a variable switch until it has been lined by hand for movement.

Rule Updated Date

April 7, 2010

[^Top](#)

8.19: Automatic Switches

The location of automatic switches will be designated in the timetable. When movement authority requires a train to stop at an Automatic Switch location, stop must be made before any part of a train passes the signal governing movement over the Automatic Switch. To operate an automatic switch to enter the siding, a crew member must do the following:

- Stop the leading end of movement within 200 feet of the absolute signal that governs movement over the switch.
- Operate the push button on the signal mast.

After 40 seconds, the signal will display a restricting indication when the switch is lined for movement into the siding.

When the signal that governs movement over an automatic switch displays a Stop indication, the switch must be operated by hand before proceeding.

Operating an Automatic Switch by Hand

To operate an automatic switch by hand, the crew member must stop the train for the signal that governs movement over the switch and then do the following:

- Unlock the switch lock.
- Place the selector lever in the HAND position.
- Operate the hand throw lever until the switch points move when the lever is moved.
- Line the switch for the intended route.
- Do not return the selector lever to the POWER position until at least one unit or car has passed over the switch.

After switch is placed in hand position, signal governing movement over the switch will display Stop indication and movements will be governed by hand signals.

When the switch is returned to the POWER position and movement over the switch is complete, the switch will automatically return to its normal position.

Entering Main Track. A train that is about to enter the main track and is authorized to proceed must move past the overlap sign. Further movement must not be made until the signal governing movement over the switch displays a proceed indication. If the signal does not display a proceed indication within 5 minutes, a crew member must operate the switch by hand as specified in Rule 9.17 (Entering Main Track at Hand-Operated or Spring Switch), waiting an additional 5 minutes, if necessary.

When automatic switches are operated by hand, all rules governing hand-operated switches apply, except cars must not be dropped over the switches.

Rule Updated Date

April 7, 2010

[^Top](#)

8.19.1: Radio Controlled Switches

The location of Radio Controlled Switches (RCS) and operating instructions will be designated in timetable special instructions. When movement authority requires a train to stop at a RCS location, stop must be made before any part of a train passes the signal governing movement over the RCS.

At locations where radio controlled switches are installed, the following instructions apply.

RCS locations are equipped with:

- Dual control switch machines.
- Bi-directional switch point indicators per Rule 8.10.
- Occupancy (OS) circuits with limits marked by signs reading "Begin OS" and "End OS".

Signs reading "Switch Control" are located approximately 2 miles in advance of RCS locations.

Operating Instructions:

1. Upon passing a "Switch Control" sign use the radio keypad to transmit the proper sequence (designated in the timetable) to request the desired switch position and receive radio transmitted verbal confirmation of switch alignment at that location.
2. Once radio confirmation of proper switch alignment has been received, movement through the RCS location must be made within 10 minutes of confirmation or the movement must approach the RCS location prepared to stop.
3. If radio confirmation of proper switch alignment is not received, movement must approach the RCS location prepared to stop until the switch point indicator can be clearly seen to indicate proper switch alignment. Notify the train dispatcher that radio confirmation was not received.

Stop and Inspect Switch

If the radio message received is "Switch Not Lined" or no radio message is received and the switch point indicator continues to display an indication to stop and inspect switch:

1. Movement must stop before entering the OS circuit limits.
2. After stopping, the RCS may be operated by unlocking the box on the side of the signal bungalow and using the push-button.
3. After push-button operation is attempted, if the switch point indicator continues to display an indication to stop and inspect switch, employee must operate the switch by hand as outlined in Rule 9.13.1 (Hand Operation of Dual Control Switches).

Note: If the switch point indicator can be clearly seen to indicate proper switch alignment, the movement may proceed without stopping. Notify the train dispatcher of malfunction.

Movement Completely Through a Radio Controlled Switch Location

After movement has been made through a RCS location, the switch point indicator will display an indication to stop and inspect switch and the switch will remain in the normal position. If switch was reversed, it will return to the normal position.

Route Change

If necessary to change the route that was originally requested, movement must stop outside the OS circuit limits and:

- Wait 15 minutes and then enter the proper sequence to line the switch for the desired route.
- Wait 15 minutes and then operate the push-button on the signal bungalow to line the switch for the desired route.
or
- Operate the switch by hand as outlined in Rule 9.13.1 (Hand Operation of Dual Control Switches) to line the switch for the desired route.

Additional Instructions

The RCS will not operate if the OS circuit at the RCS location is occupied. A proper sequence or push-button request must be made and confirmation of proper switch alignment must be received before movement enters the OS circuit limits at the RCS location.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

8.20: Derail Location and Position

Employees in train, engine, and yard service must know the location of all fixed derails. Train or engine moving on or entering tracks where fixed derails are located, must stop at least 100 feet from derail in derailing position. Movement must not continue until the derail is placed in the non-derailing position. However, the distance restriction will not apply in engine servicing areas.

Do not make a movement over a derail in derailing position.

Siding having hand-thrown derails will have derail locked in the non-derailing position, except when engines or cars are left unattended on siding. On auxiliary tracks other than siding, except when derails are placed in non-derailing position to permit movement, make sure they are always in derailing position regardless of whether cars are on the track they are protecting. Lock all derails equipped with a lock.

Derails that are used in conjunction with worker protection must be in the derailing position with proper flag displayed only when their use is required for such protection. When their use is not required for protection:

- Remove portable derails, then remove flag.
or
- Lock fixed derails in non-derailing position with an effective locking device, then remove (take down) flag.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

Union Pacific Rules

UPRR - General Code of Operating Rules

9.0: BLOCK SYSTEM RULES

- [9.1: Signal Aspects and Indications](#)
- [9.2: Location of Signals](#)
- [9.3: What Signals Govern](#)
- [9.4: Improperly Displayed Signals or Absent Lights](#)
- [9.5: Where Stop Must Be Made](#)
- [9.5.1: Changing Established Route](#)
- [9.5.2: Protection If Signal Appliance or Track Is Damaged](#)
- [9.5.3: Protection During Repairs](#)
- [9.5.4: Authority to Proceed](#)
- [9.5.5: Reporting Delays](#)
- [9.5.6: Track Occupancy Indicator](#)
- [9.6: Change of Signal Indication](#)
- [9.7: Failure to Display Most Restrictive Indication](#)
- [9.8: Next Governing Signal](#)
- [9.9: Train Delayed Within a Block](#)
- [9.9.1: Approach to Automatic Interlocking](#)
- [9.10: Initiating Movement Between Signals](#)
- [9.11: Movement from Signal Requiring Restricted Speed](#)
- [9.12: Stop Indications](#)
- [9.12.1: CTC Territory](#)
- [9.12.2: Manual Interlockings](#)
- [9.12.3: Automatic Interlockings](#)
- [9.12.4: ABS Territory](#)
- [9.13: When Instructed to Operate Dual Control Switches by Hand](#)
- [9.13.1: Hand Operation of Dual Control Switches](#)
- [9.13.2: Performing Switching](#)
- [9.14: Movement with the Current of Traffic](#)
- [9.14.1: Reporting Clear of a Track Having a Current of Traffic](#)
- [9.14.2: Controlled Block System \(CBS\)](#)
- [9.15: Track Permits](#)
- [9.15.1: Issuing Track Permits](#)
- [9.15.2: Clearing Track Permits](#)
- [9.16: Stop and Proceed Indication](#)
- [9.17: Entering Main Track at Hand-Operated or Spring Switch](#)

- [9.17.1: Signal Protection in ABS by Lining Switch](#)
- [9.18: Electrically Locked Switches and Derails](#)
- [9.19: Leaving Equipment in Signal System](#)
- [9.20: Clear Track Circuits](#)
- [9.21: Overlap Circuits](#)
- [9.22: Standing on Sanded Rail](#)
- [9.23: Suspension of Block System](#)
- [9.23.1: Guidelines While Block System Is Suspended](#)
- [9.24: Call Lights](#)

9.1: Signal Aspects and Indications

Distant, block, and interlocking signal aspects and indications are shown in the special instructions.

Signal aspects are identified by the position of semaphore arms, color of lights, flashing of lights, position of lights, or any combination. Aspects may be qualified by marker plate, number plate, letter plate, or marker light.

Signals may display color light aspects or semaphore arms and color lights.

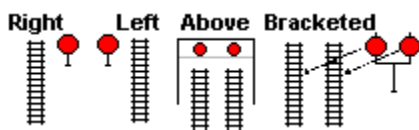
Rule Updated Date

April 7, 2010

[^Top](#)

9.2: Location of Signals

When viewed from the train, block and interlocking signals are generally to the right of the track. However, they may be located to the left or above the track. To display indications for two tracks, two bracketed signals may be located on a supporting mast. The signal to the right governs the track to the right, and the signal to the left governs the track to the left.



[Diagram A]

Rule Updated Date

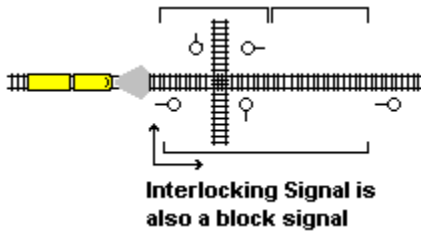
April 7, 2010

[^Top](#)

9.3: What Signals Govern

Block signals, cab signals, or both govern the use of blocks.

Interlocking signals govern the use of interlocking routes. Where a track is signaled beyond the interlocking limits in the direction of movement, the interlocking signal is also a block signal.



[Diagram A]

All other rules, where required, remain in effect when complying with the indication of block and interlocking signals.

Rule Updated Date

April 7, 2010

[^Top](#)

9.4: Improperly Displayed Signals or Absent Lights

Except as shown in block, cab, and interlocking signal aspects in the special instructions, if a light is absent, a white light is displayed where a colored or lunar light should be, or additional colored or lunar lights are displayed, regard a block or interlocking signal as displaying the most restrictive indication it can give. However, when the semaphore arm position is plainly seen, that aspect will govern.

Rule Updated Date

April 7, 2010

[^Top](#)

9.5: Where Stop Must Be Made

When movement is being made beyond a block signal requiring a train to be prepared to stop at the next signal, the stop must be made before any part of a train passes the block signal requiring the train to stop.

If a train overruns any block signal that requires it to stop, the crew must:

- Warn other trains at once by radio.
- Stop the train immediately.
- Report it to the train dispatcher.

Rule Updated Date

April 7, 2010

[^Top](#)

9.5.1: Changing Established Route

Except to avoid an accident, after a controlled signal has been cleared for a closely approaching train, the control operator must not change the signal before the approaching train's engineer has assured the control operator that he can comply with the signal change. Do not establish or authorize a conflicting route until communicating with the approaching train's crew and ensuring that the train has stopped clear of the conflicting route.

The control operator must not establish a conflicting route into an occupied block or interlocking limits, or authorize a conflicting movement, unless it is safe to do so.

The control operator must avoid operating the device controlling a switch, derail, movable point frog, or lock when any portion of a train is on or closely approaching the equipment.

Rule Updated Date

April 7, 2010

[^Top](#)

9.5.2: Protection If Signal Appliance or Track Is Damaged

If a signal or signal appliance functions improperly or the track is damaged, signals that govern movements on affected routes must display a Stop indication. No movements on such routes may be permitted until track and signal appliances are examined and movement can occur safely.

Rule Updated Date

April 7, 2010

[^Top](#)

9.5.3: Protection During Repairs

Within CTC limits or within manual interlocking limits (unless track bulletin Form B is in effect), when a switch, movable point frog, derail, or signal is under repair or is disconnected, or when the track is obstructed or removed from service, display Stop indications for all affected routes. In addition, block or mark any controls to prevent their operation.

Maintenance forces must contact the control operator before beginning repairs, disconnecting equipment, obstructing the track, or removing the track from service. Switches, movable point frogs, and derails must be spiked or secured in the required position if any movement over them occurs before repairs are complete.

Rule Updated Date

April 7, 2010

[^Top](#)

9.5.4: Authority to Proceed

Except when a signal is used to provide protection within CTC limits or at manual interlockings, control operators must not give hand signals or verbally authorize movement beyond a Stop indication when a proceed indication can be displayed for the movement.

At manual interlockings, control operators must give hand signals so that crew members can understand the signals and know which train they are intended for.

Rule Updated Date

April 7, 2010

[^Top](#)

9.5.5: Reporting Delays

When a controlled signal displays a proceed indication, notify the control operator immediately if movement cannot occur promptly.

Rule Updated Date

April 7, 2010

[^Top](#)

9.5.6: Track Occupancy Indicator

Where track occupancy indicators are located, employees must observe the indication before fouling a circuit or changing the derail or a main track switch.

When an occupied indication is displayed, trains or equipment must not foul the main track unless movement is properly protected.

Track occupancy indications do not authorize movement or relieve employees from protecting movements as required by the rules.

Rule Updated Date

April 7, 2010

[^Top](#)

9.6: Change of Signal Indication

If a signal displaying a proceed indication changes to an indication requiring a train to stop, the train must stop at once. Report such a signal change to the train dispatcher.

Rule Updated Date

April 7, 2010

[^Top](#)

9.7: Failure to Display Most Restrictive Indication

When a block is occupied, or when a switch protected by a signal is changed from its normal position and that signal fails to display its most restrictive indication, regard the signal as displaying Stop. The train must stop immediately, and employees must warn others by radio of the exact location and status of the train. Contact the train dispatcher or control operator and do not move the train without permission.

Rule Updated Date

April 7, 2010

[^Top](#)

9.8: Next Governing Signal

A train may comply with the next signal's indication when its aspect can be clearly seen and the signal governs the track where movement is occurring or will be made. This does not apply when a rule or previous signal indication requires movement at restricted speed.

This rule does not apply on UPRR. Comply with the signal indication until passing the next governing signal.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

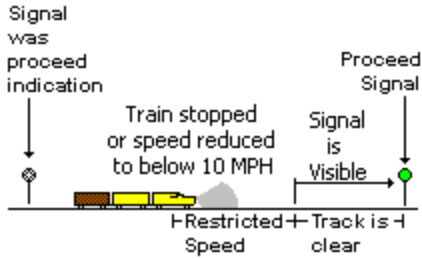
[^Top](#)

9.9: Train Delayed Within a Block

If a train has entered a block on a proceed indication that does not require restricted speed, and the train stops or its speed is reduced below 10 MPH, the train must:

A. ABS

Proceed at restricted speed. The train must maintain this speed until the next signal is visible, that signal displays a proceed indication, and the track to that signal is clear.



[Diagram A]^

B. CTC or Manual Interlocking Limits

Proceed prepared to stop at the next signal until the next signal is visible and that signal displays a proceed indication.

Passenger trains operating in push/pull service must not exceed 40 MPH until the next signal is visible and that signal displays a proceed indication.

C. ACS

Operate according to cab signal indication.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

9.9.1: Approach to Automatic Interlocking

A train must proceed prepared to stop at the interlocking signal when:

- Moving below 25 MPH and passing a signal that governs the approach to an automatic interlocking.
- or
- Speed is reduced to below 25 MPH after passing a signal that governs the approach to an automatic interlocking.

The train must continue to move prepared to stop at the interlocking signal until the train reaches a point approximately 1,000 feet from that signal. If the interlocking signal then indicates proceed, the train may resume speed.

Rule Updated Date

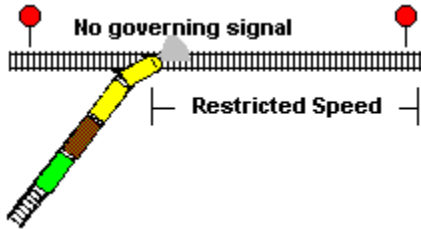
April 7, 2010

[^Top](#)

9.10: Initiating Movement Between Signals

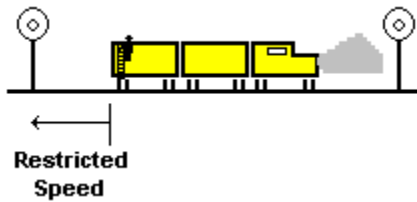
When one of the following occurs, move at restricted speed until the leading wheels have passed the next governing signal or the end of the block system:

- The train enters a block with no governing signal.



[Diagram A]

- The previous signal indication is unknown.
- Movements in the opposite direction from which the block was entered.



[Diagram B]

Exception

If a train is within ACS or ATC territory with operative cab signals, the train may operate according to the cab signal indication.

Rule Updated Date

April 7, 2010

[^Top](#)

9.11: Movement from Signal Requiring Restricted Speed

When a train passes a signal requiring movement at restricted speed, the train must move at restricted speed until its leading wheels have passed the next governing signal or the end of the block system.

Exception:

If a train is within ACS or ATC territory, with operative cab signals, the train may immediately comply with the cab signal indication.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

9.12: Stop Indications

Rule Updated Date

April 7, 2010

[^Top](#)

9.12.1: CTC Territory

At a signal displaying a Stop indication, if no conflicting movement is evident, the train will be governed as follows:

- A crew member must immediately contact the control operator unless the train is:
 - Within track and time limits.
 - or
 - Entering track and time limits from any point other than either end of the track and time limits.
- Before authorizing the train to proceed, the control operator must know that the route is properly lined and no conflicting movement is occupying or authorized to enter the track between that signal and the next absolute signal governing movement or the end of CTC where applicable.
- When the train receives these instructions, "After stopping, (train) at (location) has authority to pass signal displaying Stop indication," specifying the route where applicable. The train must move at restricted speed.
- If the signal governs movement over a drawbridge, a crew member must verify that the bridge is in the proper position for the train to pass.

Exception

Conflicting Movement. When the control operator has stopped a conflicting movement, he may then authorize another train to proceed in the same limits, advising both crews of movement to be made. If the stopped movement is later permitted to proceed, that train must move at restricted speed until its leading wheels have passed the next governing signal or the end of the block system.

Rule Updated Date

April 1, 2015

[^Top](#)

9.12.2: Manual Interlockings

At a signal displaying a Stop indication, if no conflicting movement is evident, the train will be governed as follows:

- A crew member must immediately contact the control operator.

- Before authorizing the train to proceed, the control operator must know that the route is properly lined and no conflicting movement is occupying or authorized to enter the track between that signal and the next absolute signal governing movement or the end of interlocking limits where applicable.
- The control operator may authorize the train to proceed by using hand signals or the following instructions, "After stopping, (train) at (location) has authority to pass signal displaying Stop indication," specifying the route where applicable. The train must move at restricted speed.
- If the signal governs movement over a drawbridge, a crew member must verify that the bridge is in the proper position for the train to pass.

Before proceeding into or continuing in CTC territory, the manual interlocking control operator must be sure that the CTC control operator has given authority to proceed.

Exception

Conflicting Movement. When the control operator has stopped a conflicting movement, he may then authorize another train to proceed, advising both crews of movements to be made. If the stopped movement is later permitted to proceed, that train must move at restricted speed until its leading wheels have passed the next governing signal or the end of the block system.

Rule Updated Date

April 7, 2010

[^Top](#)

9.12.3: Automatic Interlockings

At a signal displaying a Stop indication, the crew will be governed by instructions in the release box, special instructions, or other instructions. After complying with the instructions that allow the train to proceed, if signal continues to display a Stop indication, the train must move at restricted speed. However, if there is a conflicting movement, the train must not proceed until the movement has passed or stopped, and both crews agree on the next movement.

Rule Updated Date

April 7, 2010

[^Top](#)

9.12.4: ABS Territory

At a signal displaying a Stop indication outside interlocking limits, the train will be governed as follows:

A. Main Track

On a main track, except where Rule 9.14 (Movement with the Current of Traffic) is in effect, after stopping, a train authorized beyond the signal may proceed at restricted speed under any of the following conditions:

1. Authority beyond the signal is joint with other trains or employees.
2. To permit an engine, with or without cars, to couple to its train or to a standing cut of cars, if the track between the engine and cars is clear.

3. A crew member has contacted the train dispatcher and obtained permission to pass the Stop indication. However, if the train dispatcher cannot be contacted, move 100 feet past the signal, wait 5 minutes, then proceed at restricted speed.

B. Movement with the Current of Traffic

On a main track where Rule 9.14 (Movement with the Current of Traffic) is in effect, after stopping, a crew member must contact the train dispatcher or control operator and obtain permission to pass the Stop indication, then proceed at restricted speed. However, if the signal governs movement to a single main track, comply with Rule 9.17 (Entering Main Track at Hand-Operated or Spring Switch), then proceed at restricted speed.

C. Siding or Other Track

If the signal governs movements from a siding or other track to the main track, comply with Rule 9.17 (Entering Main Track at Hand-Operated or Spring Switch), then proceed at restricted speed.

D. Control Point Locations

At control point locations, if no conflicting movement is evident, a crew member must immediately contact the control operator for authority to pass the Stop indication unless the control point is within the trains track permit limits.

Application:

Examples of joint authority beyond the signal in Part A 1: Work Between, Yard Limits, Restricted Limits.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

9.13: When Instructed to Operate Dual Control Switches by Hand

If the control operator cannot line the dual control switch to the desired position, or the control machine does not indicate that the switch is lined and locked, before authorizing movement the control operator and crew must have a clear understanding specifying:

- The control point.
- Route.
- Switch(s) that must be operated by hand.

The control operator may then authorize movement past the Stop indication and instruct the employee to operate the switch(s) by hand.

Movement may then proceed as authorized only after a clear understanding is reached with all crew members specifying the control point, route and switch(s) that must be operated by hand.

Before passing over a switch specified by the dispatcher, the train must stop and the employee must operate the switch by hand as outlined in Rule 9.13.1 (Hand Operation of Dual Control Switches). After at least one unit or car has passed over the switch points, the employee must return the switch to power unless otherwise instructed by the control operator. If any additional facing point switches are in the route, the crew must stop and verify the switches are lined for the intended route and the switch points fit properly.

Rule Updated Date

May 2, 2016

System Special Instructions

Effective Date: May 2, 2016

[^Top](#)

9.13.1: Hand Operation of Dual Control Switches

An employee must get permission from the control operator to operate a dual control switch by hand. Operate the switch as follows:

- Unlock the switch lock.
- Place the selector lever in the HAND position or remove the hand crank from the holder.
- Operate the hand throw lever until the switch points are seen to move when the lever is operated, even if the switch is lined for the intended route.
- Line the switch for the intended route, or insert the crank on the shaft and turn the crank as far as it will turn until the switch is in the desired position. Remove the crank from the shaft, but do not return it to the crank holder.
- Return the switch to power by restoring the selector lever to the POWER or MOTOR position and lock. Or, return the crank to the holder and secure it with the switch lock. Notify the control operator after power to the switch is restored.

When the selector lever is in the HAND position or the crank has been removed from the holder, signals governing movements over the switch will display Stop indication, and movements will be governed by the employee operating the switch. Notify the engineer, if possible, when the switch is in hand operation and when it has been restored to power operation.

For other types of switch machines, follow the above procedure using the instructions for operation posted at the switch or by special instructions.

Rule Updated Date

April 1, 2015

[^Top](#)

9.13.2: Performing Switching

When necessary to place a dual control switch in hand operation to perform switching the crew must:

- Complete a job briefing with the control operator on moves to be made.

- Receive authority to enter the control point.
- Receive permission to place the switch in hand operation.

Crew will then comply with Rule 9.13.1, except do not return switch to power until final movement has been made over the switch.

Notify the control operator when switch has been returned to power. Further movements must be made by signal indication or as authorized by the control operator.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

9.14: Movement with the Current of Traffic

On tracks designated in the timetable, trains will run with the current of traffic, if the train dispatcher or control operator gives authorization or a controlled signal indicates proceed.

Rule Updated Date

April 1, 2015

[^Top](#)

9.14.1: Reporting Clear of a Track Having a Current of Traffic

A train without a crew member on the rear and operating on a track having a current of traffic may report clear of the limits or report having passed a specific location only when it is known the train is complete. This must be determined by one of the following ways:

- The rear of the train has a rear-end telemetry device, and air pressure on the head-end device indicates brake pipe continuity.
- An employee verifies the marker is on the rear of the train.
- A crew member can observe the rear car of the train on which the marker is placed.
- The train is stopped and an inspection verifies that the marker is on the rear car of the train.
- A trackside warning detector transmits an axle count for the train, and axle count duplicates the axle count transmitted by the previous trackside warning detector.

In addition, a train clearing in a siding or other track must comply with requirements outlined in Rule 8.3 (Main Track Switches) before reporting clear of the limits.

Rule Updated Date

April 7, 2010

[^Top](#)

9.14.2: Controlled Block System (CBS)

On tracks designated in the timetable, movements will run in the direction specified by verbal authority from the train dispatcher or a controlled signal displaying a proceed indication. This authority will establish the current of traffic for the movement. Before granting authority, the train dispatcher must know that conflicting movements are protected.

A train must not enter or occupy any track in CBS limits unless:

- A controlled signal indicates proceed.
- or
- Verbal authority is granted.

A movement must proceed only in the direction authorized unless authority is granted by Rule 9.15 (Track Permits).

A movement authorized in one direction must report to the train dispatcher when it has cleared the main track within CBS limits. A movement that clears the main track within CBS limits must not reenter that track without new authority unless within Track Permit limits.

In CBS limits, Rule 9.15 (Track Permits) is in effect.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

9.15: Track Permits

On tracks designated in the timetable, a track permit will authorize a train, track car, machine, or employee to occupy the main track or tracks between specific points. The track permit must be issued by a designated control operator under the direction of the train dispatcher. Within these limits, movements may be made in either direction according to signal indication.

Limits designated by a switch extend only to the signal governing movement over the switch, unless otherwise designated.

A train must obtain authority to pass a controlled signal displaying Stop indication to enter track permit limits. Within track permit limits a train, after stopping, may pass a signal displaying Stop indication at restricted speed without further authority, except when signal governs movement at an interlocking.

Rule Updated Date

April 7, 2010

[^Top](#)

9.15.1: Issuing Track Permits

The track permit may only be issued when:

- Limits are clear.
- Limits are occupied by the train, track car, machine, or employee who will receive the track permit.
- Limits are occupied by a train, track car, machine, or employee holding a track permit.
or
- All trains moving on signal indication without a track permit have passed the location where the track will be fouled.

The track permit limits must be protected by controlled signals. The designated control operator must know the following before issuing a track permit:

- Each controlled signal protecting the limits displays a Stop indication.
- Marking or blocking devices prevent displaying signals for movement into the limits.
- The designated control operator and each control operator who controls signals to protect the limits understand the limits, have provided protection, and have recorded the track permit on the prescribed form.

Track Permit Acknowledgment

Track permit authority must be recorded and repeated to the control operator. Acknowledgment must be received before being acted upon.

The employee will repeat the preprinted and information transmitted by the train dispatcher including what has been entered in the summary, "This authority has (total number) boxes marked: (individual box numbers)."

The control operator must maintain a record of the authority granted.

More than One Track Permit

If more than one track permit is in effect at any time within the same limits, all affected trains or employees must be notified.

Trains must move at restricted speed within these limits.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

9.15.2: Clearing Track Permits

Marking or blocking devices must not be changed or removed until the limits have been released to the control operator.

Track permit limits must be cleared and reported clear to the control operator before time expires. If the track permit is released before time expires, all equipment must be clear of the limits and reported clear to the designated control operator. However, if no other track permit has been granted within the same limits, the train may request release of the track permit. Signal indications will then govern the train if the control operator verbally authorizes the release, specifying direction of movement if required.

When necessary to modify the expiration time, an employee and the control operator must communicate before the time expires to adjust the time granted. If the employee cannot contact the control operator and the time limit expires, authority is extended until the control operator is contacted.

Employees reporting clear of track permit authority must state:

- Their name or other identification.
- Track permit number being released.
- Limits being released.

Releasing Portion of Limits

When a crew member informs the control operator that the authority is released between two specific points, the authority is considered void between those points. This track release must begin at the outer limit of the authority.

Rule Updated Date

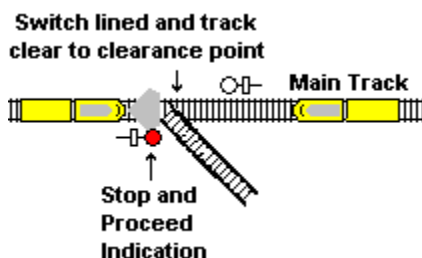
April 7, 2010

[^Top](#)

9.16: Stop and Proceed Indication

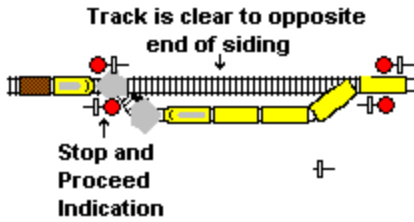
At a signal displaying a Stop and Proceed indication, the train will be governed as follows:

1. The train must stop, then proceed at restricted speed.
or
2. The train may pass the signal at restricted speed without stopping to do any of the following:
 - a. Leave the main track when the switch is lined for movement and the track is clear from the signal to the clearance point.



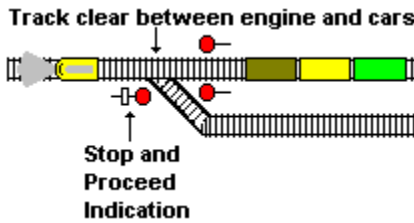
[Diagram A]

- b. Continue on the main track when meeting or passing a train, and the main track is clear to the opposite end of the siding where a train is fouling the main track.



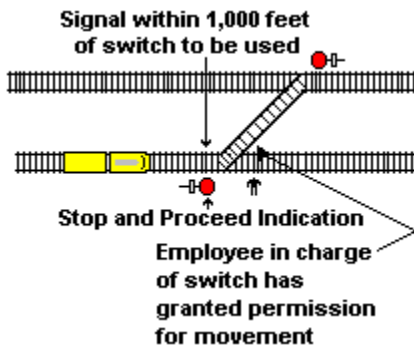
[Diagram B]

c. Permit an engine, with or without cars, to couple to its train or to a standing cut of cars, if the track between the engine and cars is clear.



[Diagram C]

d. Enter a switch that is less than 1,000 feet beyond the signal, and the employee in charge of the switch has granted permission for movement.



[Diagram D]

e. Continue on the main track when proceeding at restricted speed due to rule or previous signal indication.

f. Move within track and time, work and time, work between, track permit, or track out of service limits.

Rule Updated Date

April 7, 2010

[^Top](#)

9.17: Entering Main Track at Hand-Operated or Spring Switch

Within CTC territory and manual interlocking limits, the control operator must authorize the train to enter the track at a hand-operated or spring switch where no governing signal exists. The control operator must verify that there are no conflicting movements before giving the authority.

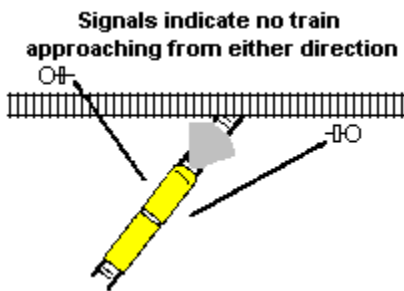
In ABS territory, when authorized to enter the signaled track, a crew member or switch tender must open the switch and wait 5 minutes at the switch to establish block signal protection. If at the end of 5 minutes the employee does not hear or see

movement approaching, the train may enter the signaled track. At a crossover, line the switch in the track the train is on, wait the 5 minutes, then line the other switch of the crossover.

A. When Hand Operation of a Spring Switch or 5 Minute Wait Is Not Required

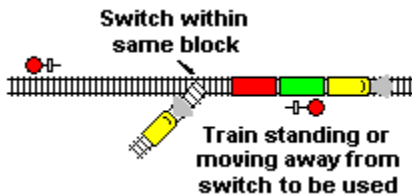
Waiting 5 minutes or operating the spring switch by hand is not required [unless prescribed by Rule 8.9 (Movement over Spring Switches)]^ under any of the following conditions:

1. Switch is equipped with an electric lock.
2. Track occupancy indicator indicates track is clear at locations specified in timetable special instructions.
3. Block signal governing movement to signaled track indicates proceed.
4. Block signals governing movements on the signaled track indicate that no train is approaching from either direction.



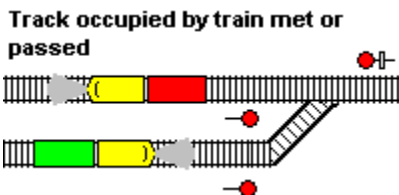
[Diagram A]^^^

5. Block to be entered is occupied by a train, engine, or car that is standing or moving away from the switch to be used.



[Diagram B]^^^

6. Main track between siding switches is occupied by a train that has been met or a standing train that will be passed.



[Diagram C]^^^

7. Train is entering a main track outside of yard limits for authorized movement against the current of traffic.
8. Rule 6.14 (Restricted Limits) is in effect, provided movement does not occur beyond restricted limits for 5 minutes after the main track circuit is fouled, unless a block signal displays a proceed indication.

9. Work and time authority is granted within DTC.

10. Track permit authorizes movement.

or

11. Track warrant outside yard limits authorizes WORK BETWEEN two specific points.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

9.17.1: Signal Protection in ABS by Lining Switch

When a train or engine is within ABS limits and requires action as necessary to stop other trains, this may be provided by lining and locking a main track switch against movement at or beyond the point where the train or engine will stop movement or clear the main track.

If the switch is located within a block other than the one occupied, do not make movements until 5 minutes after the switch has been lined. Also, make sure no train or engine is between the switch and the train or engine being protected or is within or closely approaching the block where the switch is located.

Except where Rule 6.13 (Yard Limits) or Rule 6.14 (Restricted Limits) is in effect, a train must receive permission from the train dispatcher before crossing over to or obstructing another main track signaled for movement in one or both directions.

Train dispatcher must ensure that no other movements against the current of traffic have been or will be authorized. Crew members must notify the train dispatcher when their movement is clear of the other main track.

In addition, before crossing over or fouling a main track, trains must comply with the following:

- a. Do not move until 5 minutes after lining the switch.
- b. Locate the block signal that protects the switch against trains moving with the current of traffic. To move against the current of traffic past that signal, pull the leading engine or car 100 feet beyond the signal. Wait 10 minutes before moving any further against the current of traffic. Then proceed at restricted speed.
- c. To move against the current of traffic beyond any further signals, obtain authority as outlined in Rule 14.6 (Movement Against the Current of Traffic) or Rule 15.3 (Authorizing Movement Against the Current of Traffic).

Rule Updated Date

April 7, 2010

[^Top](#)

9.18: Electrically Locked Switches and Derails

Special instructions or instructions posted near the switch will govern the operation of switches and derails equipped with electric locks.

To enter a main track within interlocking or CTC limits, employees must not open the case of door or unlock an electrically locked switch or derail without track and time or authority from the control operator.

Emergency Release

If the electric lock includes an emergency release, do not break the seal on the release or operate the release without permission from the control operator or train dispatcher. However, when communication has failed, the seal may be broken and/or the release operated:

- To permit a train to leave the main track.
- or**
- To permit a train that has authority to enter the main track. Train must not enter the main track until 5 minutes after the seal is broken and/or the release operated.

Notify the control operator or train dispatcher when the seal has been broken and/or the emergency release operated.

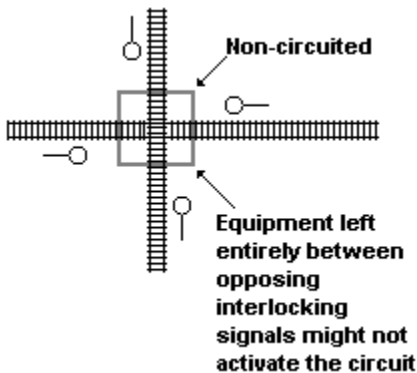
Rule Updated Date

April 7, 2010

[^Top](#)

9.19: Leaving Equipment in Signal System

Engines, cars, or equipment must not be detached and left standing entirely between the opposing interlocking signals that govern movements at a railroad crossing at grade.



[Diagram A]

Do not depend upon track equipment, other than engines or cars to actuate block signals, interlocking signals, or highway crossing signals or to be under the protection of such signals.

Rule Updated Date

April 7, 2010

[^Top](#)

9.20: Clear Track Circuits

A train, engine, car, or equipment left standing on sidings or other tracks must be clear of insulated joints at clearance points.

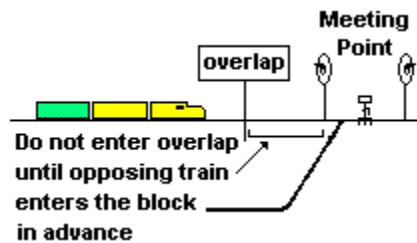
Rule Updated Date

April 7, 2010

[^Top](#)

9.21: Overlap Circuits

Overlaps may be identified by overlap signs. A train on the main track at a meeting point must not pass an overlap sign location or open a switch within the overlap until the opposing train has entered the block.



[Diagram A]

A preceding train must clear the overlap as soon as possible to avoid delaying a following train.

Unless otherwise instructed by the train dispatcher, a train on a siding at a meeting or passing point must not pass an overlap sign location until authorized to leave the siding.

Rule Updated Date

April 7, 2010

[^Top](#)

9.22: Standing on Sanded Rail

Do not allow an engine with less than three cars, or cuts of four cars or less, to stand on a sanded rail.

Rule Updated Date

April 7, 2010

[^Top](#)

9.23: Suspension of Block System

When authorized, a track bulletin may suspend the block system or sections of it.

Do not suspend the block system or sections of it until all trains and control operators in the affected territory have been notified by track bulletin specifying the limits of the suspension.

Track bulletins issued to suspend the block system must not be delivered to trains entering the affected territory until the affected limits are clear of trains, or until the track bulletin has been transmitted or delivered to all trains within the limits.

Rule Updated Date

April 7, 2010

[^Top](#)

9.23.1: Guidelines While Block System Is Suspended

When a block system or sections of it are suspended, the following guidelines govern:

A Track Bulletin will specify, when applicable:

- The affected tracks and milepost limits of the suspension.
- The location(s) of flagmen who may authorize trains to enter or to proceed at intermediate locations within the suspended limits, specifying track(s) when necessary.
- The position of dual control switches at the end of multiple main tracks.
- Dual control switches that have been locked in hand operation for main track movement.
- Actions to be taken where automatic crossing warning devices are affected.
- When track warrants may be used to authorize movement.

Crew members must:

- Follow rules that apply to non-signaled territory and not exceed 59 MPH for passenger trains or 49 MPH for other trains.
- Disregard extinguished or illuminated block and interlocking signals, unless specified by track bulletin, except when those signals:
 - Govern movements over railroad crossings at grade.
 - Are connected with trackside warning detectors.
- Approach the beginning and end of the suspended limits prepared to stop. When suspension ends at a block signal identified as in service, trains must approach that signal prepared to stop until its aspect can be clearly seen.
- If suspension begins at an in service control point, signal indication will only authorize movement through the control point, not beyond it.
- If suspension does not end at a signal identified as in service, trains leaving the limits and moving into block system territory must move at restricted speed to the first signal in service beyond the limits.

Movements over Railroad Crossings at Grade and Drawbridges:

- Signals that govern movement over railroad crossings at grade and drawbridges must be regarded as displaying a Stop indication, regardless of the aspect displayed, unless the track bulletin specifies that the signals are in service or flagman at that location authorizes movement.

- Crew members must not rely on time release or key controller operation as adequate protection to move over the crossing, unless instructed that they are in service.

Dual Control Switches:

Unless notification has been received from the train dispatcher that dual control switches are:

- Locked in hand operation and are lined for intended movement.

or

- Attended by a flagman;

Trains must stop and crew member must:

- Hand operate and lock dual control switches for main track movement.
- Leave switches locked in hand operation.
- Notify the train dispatcher that switches have been locked in hand operation and lined for main track movement.

Remote control switches not equipped for hand operation will be spiked or clamped and all concerned notified.

Spring Switches:

Spring switches removed from service must be spiked and those concerned notified. If spring switches are left in service, trains making facing point movements must be prepared to stop and test the switch, unless it is known that the switch is properly lined for the diverging route.

Block System Returned to Normal:

Train Dispatcher must notify crew members within the affected territory before permitting other trains to enter the limits when the block signal system will be returned to normal operation.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

9.24: Call Lights

When a call light is on, any employee who sees it, unless the employee is on a moving train, must contact the control operator immediately.

Rule Updated Date

April 7, 2010

[^Top](#)

[Union Pacific Rules](#)

[UPRR - General Code of Operating Rules](#)

10.0: RULES APPLICABLE ONLY IN CENTRALIZED TRAFFIC CONTROL (CTC)

- [10.1: Authority to Enter CTC Limits](#)
- [10.2: Clearing Through Hand-Operated Switches](#)
- [10.3: Track and Time](#)
- [10.3.1: Protection of Limits](#)
- [10.3.2: Protection of Machines, Track Cars, or Employees](#)
- [10.3.3: Joint Track and Time](#)
- [10.3.4: Track and Time Acknowledgment](#)

10.1: Authority to Enter CTC Limits

CTC limits are designated in the timetable. Sidings within CTC limits are controlled sidings and are governed by CTC rules. A train must not enter or occupy any track where CTC is in effect unless a controlled signal displays a proceed indication or the control operator authorizes:

- Movement past a Stop indication under Rule 9.12.1 (CTC Territory).
- A train to enter track between block signals as follows: "(Train) at (location) has authority to enter (track) and proceed (direction)." After entering the track, the train is authorized to move only in the direction specified.

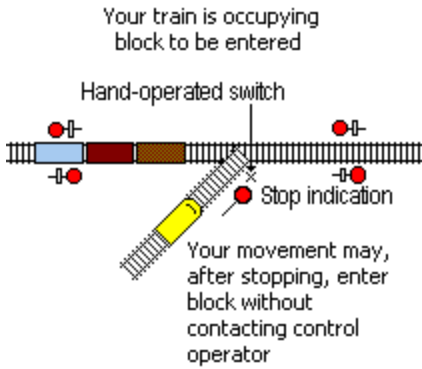
or

- Track and Time under Rule 10.3 (Track and Time).

Signal Governing Movement Over a Hand-Operated Switch

If a signal governs movement over a hand-operated switch that is not electrically locked, the control operator must authorize the train to enter or occupy any track where CTC is in effect before the switch is opened. After the switch is opened, if the signal does not display a proceed indication, a crew member must wait 10 minutes at the switch. After the 10 minute wait if the signal does not display a proceed indication, move the train at restricted speed and notify the control operator.

However, if the block to be entered is occupied by its own standing train or when the hand-operated switch remains open, the movement may, after stopping, pass an absolute signal displaying a Stop indication without waiting 10 minutes and without contacting the control operator.



[Diagram A]^

Rule Updated Date

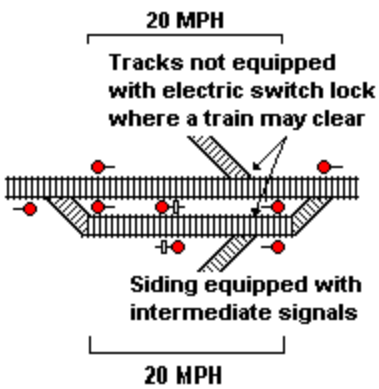
July 2, 2013

[^Top](#)

10.2: Clearing Through Hand-Operated Switches

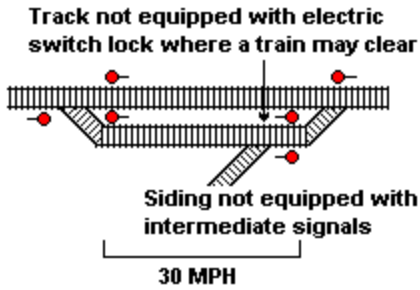
Where CTC is in effect, a train must not clear in any track at a hand-operated switch not equipped with an electric switch lock, except under one of the following conditions:

- Where the permanent maximum authorized speed does not exceed 20 MPH on the main track or a controlled siding equipped with an intermediate signal.



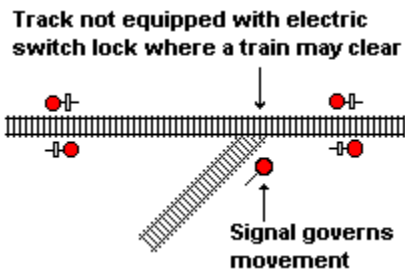
[Diagram A]

- Where the permanent maximum authorized speed does not exceed 30 MPH on a controlled siding not equipped with an intermediate signal.



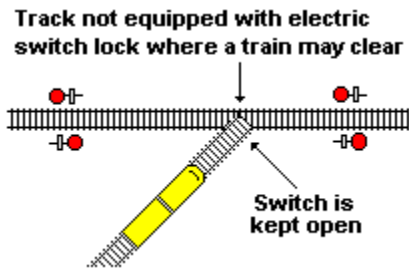
[Diagram B]

- Where a signal governs movement to a track where CTC is in effect.



[Diagram C]

- When the hand-operated switch is kept open.



[Diagram D]

Rule Updated Date

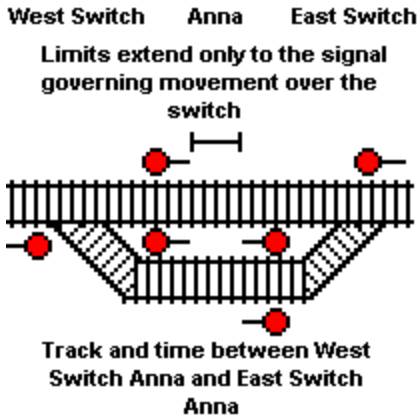
April 7, 2010

[^Top](#)

10.3: Track and Time

The control operator may authorize a train to occupy a track or tracks within specified limits for a certain time period. Authority must include track designation, track limits, and either a time limit or the words 'until released'. The train may use the track in either direction within the specified limits according to signal indication until the limits are verbally released.

Limits designated by a switch extend only to the signal governing movement over the switch unless otherwise designated.



[Diagram A.]^^^

Track and time does not authorize trains to occupy the track(s) within interlocking limits.

A. Passing Signal Displaying Stop or Stop and Proceed Indication

Except at interlockings, trains granted track and time:

1. After stopping at a signal displaying a Stop indication, must be granted verbal authority to enter the limits at either end. Verbal authority is not required after stopping within the limits or when entering the limits at any other location. Train must move at restricted speed.
2. Must observe the requirements for inspection of spring switches.
3. May pass a signal within the limits displaying Stop and Proceed indication without stopping.

B. Time Limits

Trains must release track and time before the time granted expires. When necessary to modify the expiration time, an employee and the control operator must communicate before time expires to adjust the time granted. If the employee cannot contact the control operator and the time limit expires, authority is extended until the control operator is contacted.

C. Releasing When Within the Limits

Employees releasing track and time must state:

- Their name or other identification.
- The track and time limits being released, including number, if applicable.

If no other employee has received track and time within the same limits, a train may release track and time to move in a specified direction. Signal indications will then govern the train, if the control operator verbally authorizes the release specifying direction of movement.

D. Releasing Portion of Limits.

When a crew member informs the control operator that the authority is released between two specific points, the authority is considered void between those points. This track release must begin at the outer limit of the authority.

Application of the second paragraph:

When the track and time includes "Switch Yes," the limits include that switch and the track between the absolute signals governing movement over the switch.

Application of the boxed sentence:

Track and time limits are sometimes issued across an interlocking. Track and time provides authority to be on the main track in CTC on both sides of the interlocking; however, it does not provide authority to occupy the interlocking limits. Interlocking rules must be complied with.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

10.3.1: Protection of Limits

Before granting track and time, the control operator must apply blocking or marking devices to the control machine to prevent movement into the limits. The control operator may only grant track and time:

1. If the limits are clear.
2. If the limits are occupied by a train with track and time or that will receive track and time.
3. For an engine to switch a train standing within the limits. Crew members on the engine must provide protection against possible movement of the standing train, if necessary.
or
4. After all trains moving within the limits that do not have track and time have passed the location where the track will be occupied, and the employee has been notified that authority is granted behind such trains.

Blocking or marking devices must not be changed or removed until limits have been released to the control operator.

Rule Updated Date

April 7, 2010

[^Top](#)

10.3.2: Protection of Machines, Track Cars, or Employees

Machines, track cars, or employees will receive track and time in the same manner as trains.

Machines, track cars, or employees must be clear of the limits before the employee granted track and time releases the authority.

Rule Updated Date

April 7, 2010

[^Top](#)

10.3.3: Joint Track and Time

Before track and time is granted where limits will be jointly occupied, the control operator must issue joint track and time to all trains, machines, track cars or employees within the same limits or that will enter the limits. Trains must move at restricted speed within joint track and time limits.

Rule Updated Date

April 7, 2010

[^Top](#)

10.3.4: Track and Time Acknowledgment

Track and time authority must be recorded and repeated to the control operator. Acknowledgment must be received before being acted upon.

The employee will repeat the preprinted information and information transmitted by the train dispatcher including what has been entered in the summary, "This authority has (total number) boxes marked: (individual box numbers)."

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

11.0: RULES APPLICABLE IN ACS, ATC AND ATS TERRITORIES

- [11.1: Establishing Absolute Block](#)
- [11.2: Signal Indications with Absolute Block](#)
- [11.3: Broken or Missing Seals](#)

11.1: Establishing Absolute Block

Absolute block may be established in advance of a train. The train dispatcher can establish it verbally or by issuing a track bulletin addressed only to the train affected by stating, "Absolute block is established in advance of your train between _____ and _____."

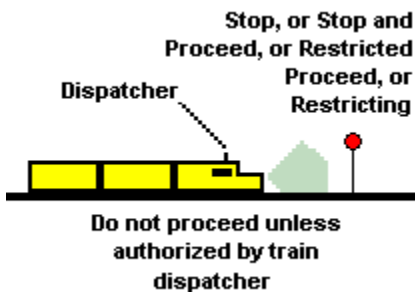
Rule Updated Date

April 7, 2010

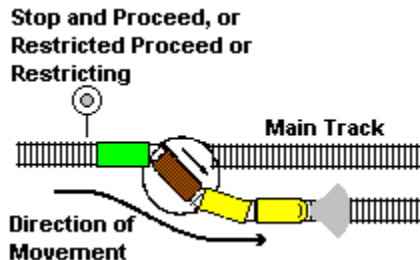
[^Top](#)

11.2: Signal Indications with Absolute Block

When absolute block is established in advance of a train, the train must not pass a signal indicating Stop, Stop and Proceed, Restricted Proceed, or Restricting unless verbally authorized by the train dispatcher. However, the train may leave the main track through a switch that is immediately after a signal indicating Stop and Proceed, Restricted Proceed or Restricting.

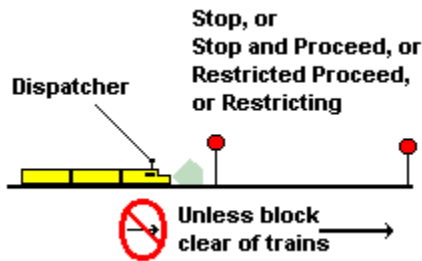


[Diagram A]



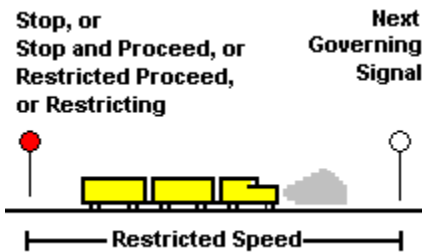
[Diagram B]

When absolute block is established in advance of a train, the train dispatcher must not authorize the train to pass a signal indicating Stop, Stop and Proceed, Restricted Proceed, or Restricting until the block governed by that signal is clear of trains.



[Diagram C]

If authorized to pass the signal, the train must proceed at restricted speed until it reaches the next governing signal.



[Diagram D]

Rule Updated Date

August 31, 2014

[^Top](#)

11.3: Broken or Missing Seals

Do not break the seal on the cutout cock or cut out ACS or ATS devices unless they do not operate properly. Report ACS or ATS failures, interruptions, and removal of or missing seals to the train dispatcher immediately.

Rule Updated Date

April 7, 2010

[^Top](#)

[Union Pacific Rules](#)

[UPRR - General Code of Operating Rules](#)

12.0: RULES APPLICABLE ONLY IN AUTOMATIC TRAIN STOP SYSTEM (ATS) TERRITORY

- [12.1: Required Equipment](#)
- [12.1.1: ATS Seals and Keys](#)
- [12.2: ATS Device Cut Out, Not Equipped, or Not Working](#)
- [12.3: Unusual Conditions](#)
- [12.3.1: ATS Penalty Brake Application](#)
- [12.3.2: ATS Inoperative](#)
- [12.3.3: Damaged Inductor](#)
- [12.4: ATS Testing](#)
- [12.4.1: Test Inductor Locations](#)
- [12.4.2: No Test Inductors](#)

12.1: Required Equipment

Except as provided in Rule 12.2 (ATS Device Cut Out, Not Equipped, or Not Working), an engine controlling the air brakes of a train within ATS limits must be equipped with an operative ATS device.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

12.1.1: ATS Seals and Keys

When operating in ATS territory, the ATS must be sealed or locked.

Rule Updated Date

April 7, 2010

[^Top](#)

12.2: ATS Device Cut Out, Not Equipped, or Not Working

Within ATS limits, if the ATS device on an engine controlling the trains air brakes fails or is cut out enroute, or if the engine on a train being detoured is not equipped with a working ATS device, the following will apply:

- The train dispatcher must be notified promptly by radio or telephone.
- The train may proceed according to signal indication, but cannot exceed 40 mph until an absolute block is established in advance of the train.
- If an absolute block is established in advance of the train as provided in Rule 11.1 (Establishing Absolute Block), the train may proceed according to signal indication, but cannot exceed 79 MPH.

Rule Updated Date

April 7, 2010

[^Top](#)

12.3: Unusual Conditions

Rule Updated Date

April 7, 2010

[^Top](#)

12.3.1: ATS Penalty Brake Application

When two successive ATS penalty brake applications have occurred while passing over inductors at signals displaying Proceed, engineer must acknowledge at each succeeding inductor thereafter, regardless of signal indications and report to the train dispatcher.

Rule Updated Date

April 7, 2010

[^Top](#)

12.3.2: ATS Inoperative

The ATS system is considered inoperative when:

- Acknowledging at subsequent inductors at signals when required by Rule 12.3.1 (ATS Penalty Brake Applications), or at two successive inert inductors, does not prevent penalty stops.
 - The acknowledgment alarm fails to sound or light fails to illuminate when acknowledgment is required at an inductor at a wayside signal indicating other than Proceed.
 - Brakes do not apply upon failure to acknowledge a signal indicating other than Proceed.
- OR**
- Absence of, or damage to, an ATS receiver is noted.

Rule Updated Date

April 7, 2010

[^Top](#)

12.3.3: Damaged Inductor

Employees noting the absence of or damage to a wayside inductor in approach to a signal must notify the train dispatcher. The train dispatcher must immediately call the signal maintainer who must cause the signal to display its most restrictive indication until inductor is replaced or repaired.

Rule Updated Date

April 7, 2010

[^Top](#)

12.4: ATS Testing**Rule Updated Date**

April 7, 2010

[^Top](#)

12.4.1: Test Inductor Locations

1. Move engine at 3 MPH or more over first inductor while holding the acknowledging device in full position (not over 15 seconds) to determine that brake application does not occur.
2. Move engine at 3 MPH or more over second inductor and do not acknowledge, a brake application should occur. Operate reset device to full position and release brakes.
3. Report as prescribed in Rule 17.4.1.

Rule Updated Date

April 7, 2010

[^Top](#)

12.4.2: No Test Inductors

At locations where there are no test inductors:

1. Pass a test bar under the ATS receiver while holding the acknowledging device in full position (not over 15 seconds) to determine that brake application does not occur.

2. Pass a test bar under the ATS receiver and do not acknowledge. A brake application should occur. Operate reset device to full position and release brakes.
3. Report as prescribed in Rule 17.4.1.

Rule Updated Date

April 7, 2010

[^Top](#)

[Union Pacific Rules](#)

UPRR - General Code of Operating Rules

13.0: RULES APPLICABLE ONLY IN AUTOMATIC CAB SIGNAL SYSTEM (ACS) TERRITORY

- [13.1: General Information](#)
- [13.1.1: Observance of Signals](#)
- [13.1.2: Conforming with Block Signals](#)
- [13.1.3: Does Not Indicate Conditions Ahead](#)
- [13.1.4: Cab Signals Cut In and Out](#)
- [13.1.5: Departure Test](#)
- [13.2: Normal Operation](#)
- [13.2.1: Restrictive to More Favorable](#)
- [13.2.2: Favorable to More Restrictive](#)
- [13.2.3: Elimination of Audible Indicator](#)
- [13.3: Unusual Conditions](#)
- [13.3.1: Cab Signal and Block Signal Do Not Agree](#)
- [13.3.2: Inoperative Cab Signal Device](#)
- [13.3.3: Movement with an Inoperative Cab Signal Device](#)

13.1: General Information

Rule Updated Date

April 7, 2010

[^Top](#)

13.1.1: Observance of Signals

The Automatic Cab Signal (ACS) system is used in addition to block signals to govern the use of blocks. However, employees must continue to observe rules that govern the use of block signals as well as other rules, except as outlined in Rules 13.2.1 (Restrictive to More Favorable) and 13.2.2 (Favorable to More Restrictive).

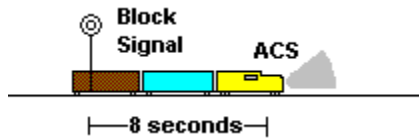
Rule Updated Date

April 7, 2010

[^Top](#)

13.1.2: Conforming with Block Signals

The cab signal and block signal systems are interconnected so that the cab signal agrees with the block signal indication within 8 seconds after the engine passes the block signal that governs entrance into a block.



[Diagram A]

Exception

The ACS system is to be considered inoperative through turnouts and crossovers. Block signal indications and speeds specified in the special instructions for each turnout govern movements through turnouts and crossovers.

Rule Updated Date

April 7, 2010

[^Top](#)

13.1.3: Does Not Indicate Conditions Ahead

Cab signals will not indicate conditions ahead when the engine is:

- Moving against the current of traffic.
 - Shoving cars.
- OR**
- Moving backward and not equipped for backward operation.

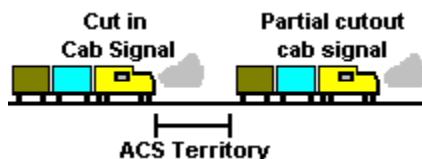
Rule Updated Date

April 7, 2010

[^Top](#)

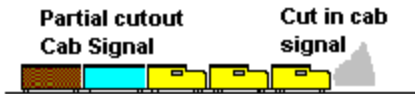
13.1.4: Cab Signals Cut In and Out

The cab signal on the lead unit must be cut in before entering and while operating within ACS territory and placed in partial cutout after leaving ACS territory.



[Diagram A]

The cab signal must be placed in partial cutout on all trailing units in ACS territory.



[Diagram B]

Before taking charge of an engine in or approaching ACS territory, the engineer must know that the cab signal devices are cut in and operative and that the ACS cutout is properly sealed. If the device was cutout or seal is missing upon taking charge of a locomotive, the ACS equipment must be re-tested. If device was previously tested and fails to function properly upon entering, or while operating in ACS territory, the train dispatcher must be notified and the train must be operated under an absolute block. If the device was not tested previously, the engineer must make a departure test prior to entering ACS territory.

Do not cut out cab signal devices while the train is in ACS territory, unless authorized to do so.

Rule Updated Date

April 7, 2010

[^Top](#)

13.1.5: Departure Test

A cab signal departure test must be made at the initial terminal of the locomotive. The certification of the departure test shall be recorded on the proper form and posted in the locomotive cab, with a copy left at the test location for filing in the office of the supervisor having jurisdiction. If it is impractical to leave a copy of the certification and test results at that location, then the results must be transmitted to either the train dispatcher or another designated individual before entering equipped territory. A written record of the test results and the name of the person performing the test shall be retained for 92 days at these locations.

The departure test must determine that:

1. The ACS device is operative and cut-out handle is sealed.
2. The cab signal apparatus reflects all aspects according to the code rates.
3. Acknowledgment of all more restrictive aspects will silence the audible indicator and forestall a penalty brake application.
4. Not acknowledging the restrictive indication will initiate a full service penalty brake application within eight (8) seconds.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

13.2: Normal Operation

Rule Updated Date

April 7, 2010

[^Top](#)

13.2.1: Restrictive to More Favorable

Cab signal indications do not supersede the indication displayed on block and interlocking signals. However, when a cab signal changes to a more favorable indication after having passed the block or interlocking signal, the train may immediately comply with the indication.

Rule Updated Date

April 7, 2010

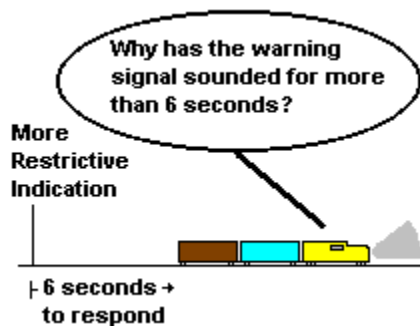
[^Top](#)

13.2.2: Favorable to More Restrictive

When a cab signal changes to a more restrictive indication, the engineer must comply promptly with the indication received.

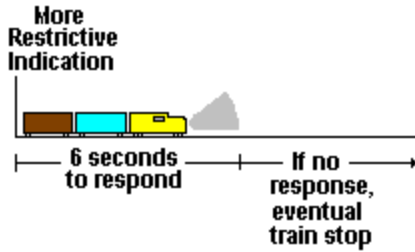
Acknowledging Restrictive Indication

When a cab signal changes to a more restrictive indication, the engineer must acknowledge the change with the acknowledging device. On engines not equipped with the Coded Cab Signal-Safety Control (CCS-SC) System, another member of the crew must immediately find out from the engineer why the warning whistle sounded longer than 6 seconds. When conditions require, the crew member must stop the train immediately.



[Diagram A]

On engines equipped with CCS-SC, the engineer must acknowledge the change within 6 seconds of receiving it to avoid a penalty brake application.



[Diagram B]

Penalty Brake Application Occurs

On engines equipped with CCS-SC, if the engineer does not acknowledge the more restrictive indication, a full service penalty brake application will occur automatically within 6 to 8 seconds. When this occurs, the engineer must do the following:

- Place the automatic brake valve handle in suppression position and leave it there until the train stops.
- Place the throttle in idle position.
- Acknowledge the signal change with the acknowledging device.
- After the train has stopped and the P.C. light goes out, place the automatic brake valve handle in release position.

Rule Updated Date

April 7, 2010

[^Top](#)

13.2.3: Elimination of Audible Indicator

To keep the audible indicator from sounding while the train is stopped in a cab signal test loop, place the reverser handle in either the neutral or reverse position. This will change the cab signal to its most restrictive aspect. After acknowledging the signal change, no more signal changes will be received.

Place the reverser handle in the forward position to automatically restore the equipment to normal operation.

Since the reverser handle in trailing units is in neutral position, the audible indicator is automatically silenced on trailing units.

Rule Updated Date

April 7, 2010

[^Top](#)

13.3: Unusual Conditions

Rule Updated Date

April 7, 2010

[^Top](#)

13.3.1: Cab Signal and Block Signal Do Not Agree

If the cab signal does not display the proper ACS aspect shown in the Block and Interlocking Signal Rules:

- The most restrictive block or cab signal indication must be complied with. A crew member must promptly notify the train dispatcher of the location, signal number, and track where the signals did not agree.
- At control point locations with only an absolute signal(s), when authorized by the train dispatcher to pass the Stop indication, the cab signal may change to a more favorable indication at the signal. The train may comply with the cab signal indication. This is normal due to track circuitry and would not be considered an improper display of the cab signal.

Exception: When the train dispatcher's instructions require the train to proceed at Restricted Speed, the train must comply with the train dispatcher's instructions regardless of cab signal indication.

Rule Updated Date

April 7, 2010

[^Top](#)

13.3.2: Inoperative Cab Signal Device

The ACS system is to be considered inoperative when:

- The audible indicator does not sound when the cab signal changes to a more restrictive indication.
- The audible indicator continues to sound when the cab signal change is acknowledged.
- The cab signal does not conform at two consecutive block or interlocking signal locations.

OR

- Any part of the cab signal device is damaged.

Known in Advance

When it is known in advance that the ACS system is inoperative in a specific area, crew members will be notified with a track bulletin.

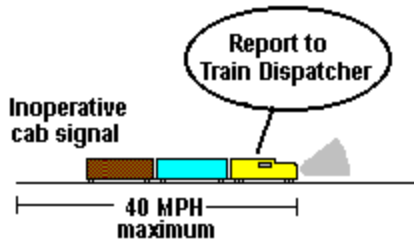
Rule Updated Date

April 7, 2010

[^Top](#)

13.3.3: Movement with an Inoperative Cab Signal Device

When it is determined the cab signal device is inoperative, the train may proceed according to block signal indications. However, the train must not exceed 40 MPH until it reaches a point where a crew member can report the defect to the train dispatcher.



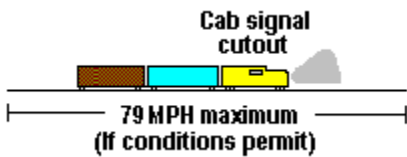
[Diagram A]

The train dispatcher will:

- Instruct the crew to cut out the cab signal device.
- Establish an absolute block in advance of the train.
- Instruct the crew to position the acknowledging lever in the Partial Cutout position (C/O) when cab signal is inoperative due to a power outage.

When the cab signal device has been cut out, the train must:

- Proceed according to block signal indications, not exceeding 79 MPH.
- Comply with Rule 11.2 (Signal Indications with Absolute Block).



[Diagram B]

When it is determined the cab signal device is inoperative due to a power outage, a crew member will position the acknowledging lever in the Partial Cutout position.

Rule Updated Date

April 7, 2010

[^Top](#)

[Union Pacific Rules](#)

UPRR - General Code of Operating Rules

14.0: RULES APPLICABLE ONLY WITHIN TRACK WARRANT CONTROL (TWC) LIMITS

- [14.0: RULES APPLICABLE ONLY WITHIN TRACK WARRANT CONTROL \(TWC\) LIMITS](#)
- [14.1: Authority to Enter TWC Limits](#)
- [14.2: Designated Limits](#)
- [14.3: Operating with Track Warrants](#)
- [14.3.1: Leaving the Main Track](#)
- [14.4: Occupying Same Track Warrant Limits](#)
- [14.4.1: Radio Blocking](#)
- [14.5: Protecting Men or Equipment](#)
- [14.6: Movement Against the Current of Traffic](#)
- [14.7: Reporting Clear of Limits](#)
- [14.8: Track Warrant Requests](#)
- [14.9: Copying Track Warrants](#)
- [14.9.1: Duplicating Track Warrants](#)
- [14.10: Track Warrant in Effect](#)
- [14.11: Changing Track Warrants](#)
- [14.12: Not Used](#)
- [14.13: Mechanical Transmission of Track Warrants](#)

14.0: RULES APPLICABLE ONLY WITHIN TRACK WARRANT CONTROL (TWC) LIMITS

TRACK AUTHORITY FORM – T&Y

Track Warrant Track & Time Track Permit

Number: _____ Date: _____
 To: _____ At: _____

1. Track warrant _____ is void
2. Not in effect until after the arrival of _____, _____, _____ at _____
3. Proceed from _____ to _____ on _____ track _____ Subdivision
4. Hold Main Track at last named point
5. Clear Main Track at last named point
6. Do not foul limits ahead of _____, _____, _____
7. Work between _____ and _____ on _____ track _____ Subdivision
8. Authority granted between CP _____ on _____ (track) Switch Yes / No
 and CP _____ on _____ (track) Switch Yes / No
 Joint _____ Blocked until _____ Extended to _____
9. Limits jointly occupied between _____ and _____
 (NOTE: Trains must move at restricted speed within joint authority limits)
10. Joint with _____ between _____ and _____
 Joint with _____ between _____ and _____
 Joint with _____ between _____ and _____
11. Do not exceed _____ mph between _____ and _____
 No flags displayed _____ Flags displayed at MP _____ for _____ trains
 Do not exceed _____ mph between _____ and _____
 No flags displayed _____ Flags displayed at MP _____ for _____ trains
 Do not exceed _____ mph between _____ and _____
 No flags displayed _____ Flags displayed at MP _____ for _____ trains
12. Comply with Procedure _____ at/between MP _____ and MP _____
 Comply with Procedure _____ at/between MP _____ and MP _____
 The _____ switch at _____ is lined for siding
 The _____ switch at _____ is lined for siding
 Leave the _____ switch at _____ lined for siding
 Leave the _____ switch at _____ lined for siding

_____ marked: _____
 OK at _____ Dispatcher _____ Relayed to _____ Copied by _____
 Clear of _____ at _____ by _____
 Clear of _____ at _____ by _____
 Clear of _____ at _____ by _____
 Limits reported clear at _____ by _____

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

14.1: Authority to Enter TWC Limits

Where designated by the timetable, a track warrant will authorize main track use under the direction of the train dispatcher or as prescribed by Rule 6.13 (Yard Limits) or 6.14 (Restricted Limits). Track warrant instructions must be followed where yard limits or restricted limits are in effect.

Rule Updated Date

April 7, 2010

[^Top](#)

14.2: Designated Limits

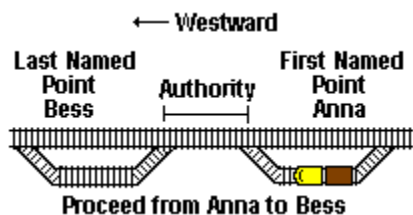
Track warrant limits must be designated by specifying track, where required, and specific locations such as switches, mile posts, or railroad identifiable points. However, station names may be used as follows:

A. First Named Point

When a station name designates the first named point, authority extends from and includes the last siding switch. Authority extends from the station sign if no siding exists.

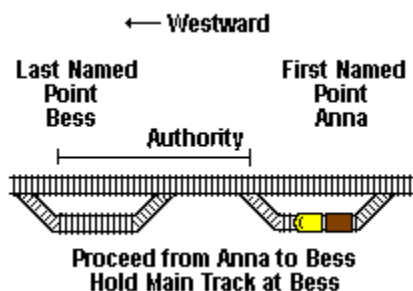
B. Last Named Point

When a station name designates the last named point, authority extends to and includes the first siding switch. Authority extends to the station sign if no siding exists.



[Diagram A]

At the last named point, authority extends to but does not include the last siding switch when the track warrant states, "Hold main track at last named point."



[Diagram B]

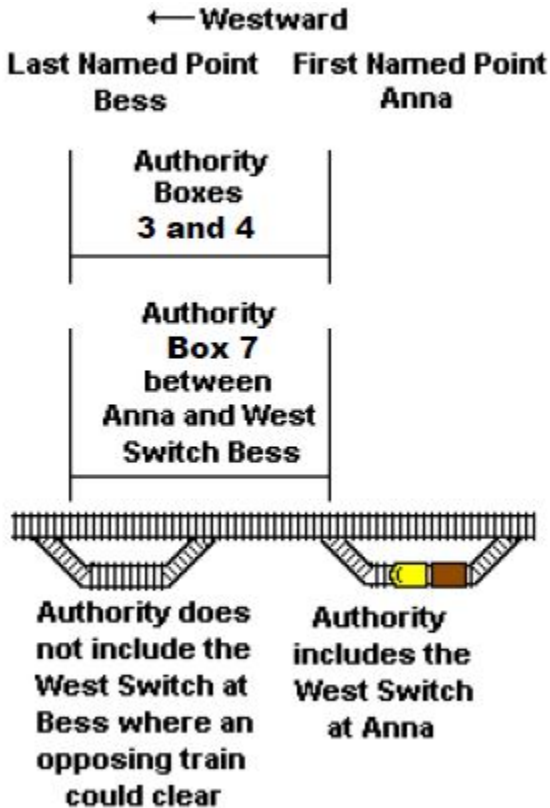
Rule Updated Date

April 7, 2010

[^Top](#)

14.3: Operating with Track Warrants

A track warrant authorizes a train or engine to occupy the main track within designated limits. However, the train or engine must not foul a switch at either end of the limits where an opposing train may use the same switch to clear the main track.



[Diagram A]^^^

The train or engine must move as follows:

1. Proceed from one point to another in the direction the track warrant specifies. When a crew member informs the train dispatcher that the entire train has passed a specific point, track warrant authority is considered void up to that point.
or
2. If authorized to 'WORK BETWEEN' two specific points, the train or engine may move in either direction between those points. When a crew member informs the train dispatcher that the authority is released between two specific points, the authority is considered void between those points. This track release must begin at the outer limit of the authority.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

14.3.1: Leaving the Main Track

A train authorized to proceed in one direction must inform the train dispatcher when it leaves the main track before reaching the last named point, unless a crew member is left to prevent a following movement from passing.

Rule Updated Date

April 7, 2010

[^Top](#)

14.4: Occupying Same Track Warrant Limits

A track warrant must not be issued to a train within the same or overlapping limits with another train unless:

1. In signaled territory, all trains are authorized to proceed in the same direction.
2. In non-signaled territory, all trains are authorized to proceed in the same direction and are instructed to move at restricted speed.
3. Two or more trains are authorized to "WORK BETWEEN" two specific points at restricted speed within the overlapping limits.
4. Trains are authorized to proceed through the limits of another train authorized to "WORK BETWEEN" two specific points, and track warrants instruct all trains to move at restricted speed within the overlapping limits. When station name(s) designate the overlapping limits, refer to Rule 14.2 (Designated Limits) for limits where trains are required to move at restricted speed.
or
5. Radio Blocking is authorized as outlined by Rule 14.4.1 (Radio Blocking).

Where track warrant authority includes yard limits or restricted limits, the terms of Rule 6.13 (Yard Limits) or Rule 6.14 (Restricted Limits) apply, but track warrant instructions must be followed.

Rule Updated Date

April 7, 2010

[^Top](#)

14.4.1: Radio Blocking

Where designated by special instructions, in non-signaled territory, more than one train may be authorized to proceed in the same direction within the same or overlapping limits, provided the following train:

- Is notified on the track authority of the identity of the preceding train.
- Does not occupy the limits ahead of the preceding train.

- Notifies the crew of the preceding train that radio blocking has been authorized stating the limits.
- Is notified by the preceding train that the entire train has passed a specific location. Location specified must not be beyond limits indicated. The following words must be used: "(Train) clear of (location)".
- Does not proceed beyond the last location the preceding train has reported to have passed.

All instructions between the trains must be written, repeated, and acknowledged with "THAT IS CORRECT" before being acted on. These written instructions between the trains must be retained until the end of tour of duty.

Notify the train dispatcher if communication cannot be established between the two trains. If necessary, radio blocking information may be relayed only by the train dispatcher.

The last named point of the following train's authority must not extend beyond the last named point of the preceding train's authority.

In the application of Rule 6.4 (Reverse Movements) and Rule 6.6 (Back Up Movements), the movement must not go beyond the last specific location reported to the following train.

Written Instructions Between Trains

(Suggested Form)

(Following Train ID) is authorized Radio Blocking from _____ to _____ behind (Preceding Train ID).

	<i>LOCATION</i>		<i>TIME</i>		<i>CREW MEMBER</i>
<i>(Preceding Train ID) clear of</i>	_____	<i>at</i>	_____	<i>reported by</i>	_____
	_____	<i>at</i>	_____	<i>reported by</i>	_____
	_____	<i>at</i>	_____	<i>reported by</i>	_____
	_____	<i>at</i>	_____	<i>reported by</i>	_____
	_____	<i>at</i>	_____	<i>reported by</i>	_____

Rule Updated Date

April 1, 2015

[^Top](#)

14.5: Protecting Men or Equipment

Men or equipment may receive a track warrant in the same manner as trains to occupy or perform maintenance on the main track without other protection.

A track warrant must not be issued to protect men or equipment within the same or overlapping limits with a train unless:

1. All trains are authorized to proceed in one direction only, and the track warrant specifies that men or equipment do not occupy limits ahead of these trains.
- or

2. All trains authorized are notified of the men or equipment and have been instructed by track warrants to move at restricted speed within overlapping limits. When station name(s) designate the overlapping limits, refer to Rule 14.2 (Designated Limits) for limits where trains are required to move at restricted speed. Also, a track warrant must inform the employee in charge of men or equipment about the trains. If the track is not safe for trains to move at restricted speed, the employee must protect the track with red flags according to Rule 5.4.7 (Display of Red Flag).

Rule Updated Date

April 1, 2015

[^Top](#)

14.6: Movement Against the Current of Traffic

When a track warrant authorizes a train to move against the current of traffic, the train must use only the track designated within the specified limits. This train must not allow a train following on the same track to pass, unless the train dispatcher instructs it to pass.

Application:

This rule does not apply on UPRR unless designated in the timetable.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

14.7: Reporting Clear of Limits

Before reporting clear of the limits or reporting having passed a specific location, confirm with the dispatcher that the conductor and engineer have discussed their location and are in agreement with limits or warrant being released. Communication must include the track warrant number when releasing track warrants.

A train without a crew member on the rear and operating in non-signaled or double track territory may report clear of the limits, report having passed a specific location, or release the track between two specific locations only when it is known the train is complete. This must be determined by one of the following ways:

1. The rear of the train has a rear-end telemetry device, and air pressure on the head-end device indicates brake pipe continuity.
2. An employee verifies the marker is on the rear of the train.
3. A crew member can observe the rear car of the train on which the marker is placed.
4. The train is stopped, and an inspection verifies that the marker is on the rear car of the train.

5. A trackside warning detector transmits an axle count for the train, and the axle count duplicates the axle count transmitted by the previous trackside warning detector.

In non-signaled territory comply with the requirements outlined in Rule 8.3 (Main Track Switches) and advise the train dispatcher:

- All main track switches operated have been restored and locked in normal position.
- The crew has completed the job briefing.
- The conductor report form is properly initialed.

When a hand-operated switch is used to clear the main track, except where Rule 6.13 (Yard Limits) or Rule 6.14 (Restricted Limits) are in effect, advise the train dispatcher of the position of the switch and that the switch is locked when reporting clear of track warrant limits. Train dispatcher shall repeat the reported switch position and employee releasing the limits shall confirm to the train dispatcher this information is correct.

Application

Engineer and conductor are jointly responsible to ascertain and agree on the exact location their entire train has passed before reporting past a specific location or clearing their track warrant limits.

"Roll-up"

When the train dispatcher requests a crew to report a train's location to shorten up or "Roll-up" an active track warrant the following communication will apply:

Train dispatcher: "I need to roll-up track warrant (number). What will protect the rear of your train, over?"

When reporting past a specific location:

- Engineer and conductor will job brief and agree on train's location and location entire train is past.
- When using a milepost location, communication with the train dispatcher will include a whole milepost number (not tenths) the entire train is past.
- When using railroad identifiable points that include a direction, such as a siding switch, state and spell direction i.e. "North (N O R T H) siding switch at Dora".

Conductor: "Milepost (number) covers the rear of our train, dispatcher. Conductor (Name) ready to copy, over

After initial communication the train dispatcher will initiate "Roll-up":

Sample radio transmissions:

Train Dispatcher: "Track Warrant #4655, UP 2467 is clear of MP 362, over."

Conductor: "Track Warrant #4655, UP 2467 is clear of MP 362, over."

Train Dispatcher: "That is correct at 0817, dispatcher BAF, copied by Smith, over."

Conductor: "Correct at 0817, dispatcher BAF, Smith, over."

Train Dispatcher: "That's correct, Dispatcher Out."

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

14.8: Track Warrant Requests

An employee who requests a track warrant must inform the train dispatcher what movements will be made and, when necessary, which tracks will be used and how much time is required.

Rule Updated Date

April 7, 2010

[^Top](#)

14.9: Copying Track Warrants

The conductor and the engineer must each have a copy of the track warrant issued to their train, and each crew member must read and understand it. The copy must show the date. The following must occur when transmitted verbally:

A. Transmitting Track Warrants

1. The train dispatcher will transmit the track warrant. The train dispatcher will not transmit the summary.
2. An employee will enter all of the information transmitted by the train dispatcher. The employee will then check the information copied to ensure all items are correct and enter in the summary the total number of boxes marked and individual box numbers.
3. The employee will repeat the preprinted and information transmitted by the train dispatcher including what has been entered in the summary, "This track warrant has (total number) boxes marked: (individual box numbers)."
4. The train dispatcher will check the repeat and summary, and if all information including the summary is correct; will say "OK" and give the time and his/her initials.

The employee will enter the OK time and the train dispatcher's initials on the track warrant and repeat them to the train dispatcher.

B. In Effect

1. The track warrant is not in effect until the "OK" time is shown on it.
2. If the track warrant restricts movement or previously granted authority, it cannot be considered in effect by the train dispatcher until acknowledgment of the "OK" has been received.

Employees may relay track warrants.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

14.9.1: Duplicating Track Warrants

Employees who reproduce track warrants with a duplicating machine do not need to repeat them to the train dispatcher.

Duplicated track warrants must not be delivered or used until they are checked and verified as:

- Legible
- Duplicated in their entirety.

Rule Updated Date

April 7, 2010

[^Top](#)

14.10: Track Warrant in Effect

A track warrant is in effect until a crew member reports the train has cleared the limits, or the track warrant is made void. The crew member must inform the train dispatcher when the train has cleared the limits.

Employees reporting clear of track warrant limits must state:

- Their name or other identification.
- Track warrant number being released.
- Limits being released.

Time Limit Shown

If the track warrant shows a time limit, the train must clear the limits by the time specified, unless another track warrant is obtained. If an employee cannot contact the train dispatcher and the time limit expires, authority is extended until the train dispatcher is contacted.

Rule Updated Date

April 7, 2010

[^Top](#)

14.11: Changing Track Warrants

Employees must not add to or alter the track warrant in any manner, except as specified by Rule 15.1.1 (Changing Address of Track Warrants or Track Bulletins).

When the limits or instructions of a track warrant must be changed, a new track warrant must be issued voiding the track warrant(s) to be changed.

Note: This does not prohibit additions or changes authorized by the rules (e.g. Rule 14.7).

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

14.12: Not Used

Rule Updated Date

April 7, 2010

[^Top](#)

14.13: Mechanical Transmission of Track Warrants

Repetition is not required when track warrants are transmitted mechanically. The "OK" time will be given when the track warrant is issued.

Track warrants that restrict the authority or movement of a train must not be transmitted mechanically, unless the train being restricted will not leave the point without receiving the track warrant.

The crew must verify the designated limits and any conditions of track warrants that convey authority with the train dispatcher before initiating movement on main track.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

[Union Pacific Rules](#)

[UPRR - General Code of Operating Rules](#)

15.0: TRACK BULLETIN RULES

- [15.0: TRACK BULLETIN RULES - TRACK CONDITION SUMMARY](#)
- [15.1: Track Bulletins](#)
- [15.1.1: Changing Address of Track Warrants or Track Bulletins](#)
- [15.2: Protection by Track Bulletin Form B](#)
- [15.2.1: Protection for On-Track Equipment](#)
- [15.2.2: Protection of Non-Railroad Contractors](#)
- [15.3: Authorizing Movement Against the Current of Traffic](#)
- [15.4: Protection when Tracks Removed from Service](#)
- [15.5: Protection When Tracks Blocked With Equipment](#)
- [15.6: Change of a General Order, Special Instruction, or Rule](#)
- [15.7: Copying Track Bulletins](#)
- [15.8: Duplicating Track Bulletins](#)
- [15.9: Mechanical Transmission of Track Bulletins](#)
- [15.10: Retaining Track Bulletins](#)
- [15.11: Not Used](#)
- [15.12: Relief of Engineer or Conductor During Trip](#)
- [15.12.1: Relief of Engineer or Conductor at Crew Change](#)
- [15.13: Voiding Track Bulletins](#)
- [15.13.1: Verbally Raising a Speed Restriction](#)
- [15.14: Delivering Track Bulletins](#)

15.0: TRACK BULLETIN RULES - TRACK CONDITION SUMMARY

Form B's will have asterisks before and after the bulletin. When flags are displayed in less than the prescribed distance, the milepost and direction will be shown. If flags are not displayed "NOT" will be shown.

Example: Track Condition Summary

NO: (Track Warrant) TO: (Train ID)

Subdivision (000)

42683(2) 42554(3) 42276(2) 42034

LINE NO.	LIMITS		TRACK(S)	FLAG	FOR	FROM	UNTIL
	FROM MP	TO MP	AFFECTED	AT MP	DIR	DATE	DATE TIME

FORM A NO. 42683

1.	43.9	44	40	MT 2	43	WWD	04/07/14 1220
----	------	----	----	------	----	-----	---------------

2.	46.6	47.1	40	MT 2			04/11/14 1318
----	------	------	----	------	--	--	---------------

FORM A NO. 42554

1.	51	51.2	40	MT 2			04/10/14 1102
----	----	------	----	------	--	--	---------------

2.	55.5	55.6	40	MT 2			04/10/14 0100
----	------	------	----	------	--	--	---------------

LINE NO.	LIMITS		TIME	TRACK(S)	FLAG	FOR	GANG
	FROM MP	TO MP	FROM UNTIL	AFFECTED	AT MP	DIR	NO / FOREMAN

*****FORM B NO. 42276*****

ON 04/14/14 RULE 15.2 APPLIES WITHIN THE FOLLOWING LIMITS:

1.	113	118	0700 1900	MT 1	112	WWD	4763 GUTZ
----	-----	-----	-----------	------	-----	-----	-----------

2.	113	118	0700 1900	MT 2	112	WWD	4763 GUTZ
----	-----	-----	-----------	------	-----	-----	-----------

LINE NO.	LIMITS		TRACK(S)	FLAG	FOR	FROM	UNTIL
	FROM MP	TO MP	AFFECTED	AT MP	DIR	DATE	DATE TIME

FORM A NO. 42554

3.	114.4	116.3	60	MT 2			04/10/14 1118
----	-------	-------	----	------	--	--	---------------

FORM C NO. 42034

Date 04/03/14

1. SIDING AT WILD OUT OF SERVICE SWITCHES ARE SPIKED AND TAGGED

For Train Movements in the Opposite Direction.

Example: Track Condition Summary

NO: (Track Warrant)

TO: (Train ID)

Subdivision (000)

42276(2) 42554(3) 42683(2) 42034

LINE NO.	LIMITS FROM MP TO MP		TIME FROM UNTIL	TRACK(S) AFFECTED	FLAG AT MP	FOR DIR	GANG NO / FOREMAN	
*****FORM B NO. 42276*****								
ON 04/14/14 RULE 15.2 APPLIES WITHIN THE FOLLOWING LIMITS:								
1.	118	113	0700 1900	MT 1	112	WWD	4763	GUTZ
2.	118	113	0700 1900	MT 2	112	WWD	4763	GUTZ
LINE NO.	LIMITS FROM MP TO MP		MPH	TRACK(S) AFFECTED	FLAG AT MP	FOR DIR	FROM DATE TIME	UNTIL DATE TIME
FORM A NO. 42554								
3.	116.3	114.4	60	MT 2			04/10/14 1118	
2.	55.6	55.5	40	MT 2			04/10/14 0100	
1.	51.2	51	40	MT 2			04/10/14 1102	
FORM A NO. 42683								
2.	47.1	46.6	40	MT 2			04/11/14 1318	
1.	44	43.9	40	MT 2	43	WWD	04/07/14 1220	

FORM C NO. 42034 DATE 04/03/14
 1. SIDING AT WILD OUT OF SERVICE SWITCHES ARE SPIKED AND TAGGED

Below the last line of data there will be a blank line then the page number. Nothing should be printed below the page number.

OK times and Train Dispatchers initials are not shown.

Form A and Form B Track Bulletins

On the subdivision summary page, the track bulletin number for Form A and Form B bulletins will have, in parenthesis, the number of line items for that track bulletin. Because of the sorting by milepost, any particular Form A or Form B bulletin may be split by another Form A or Form B in the body of the Track Condition Summary.

Form C Track Bulletins

Form C track bulletins for a particular subdivision will be listed after the Form A and Form B bulletins for that subdivision with two exceptions.

- Listed first on the Track Condition Summary will be Form C bulletins that apply to the entire system. The subdivision heading will be "System Bulletin All Subdivisions".
- Form C bulletins issued on multiple subdivisions will be listed next. These will only be listed once; the subdivision heading will show all the subdivisions that the bulletin has been issued on.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

15.1: Track Bulletins

Track bulletins must not be changed unless specified by Rules 15.1.1 (Changing Address of Track Warrants or Track Bulletins) or Rule 15.13 (Voiding Track Bulletins). The train dispatcher will issue track bulletins as required. Track bulletins will contain information on all conditions that affect safe train or engine movement. Forms other than track bulletin Forms A and B may be used when necessary.

Receipt and Comparison of Track Bulletins

At their initial station, unless otherwise instructed by the train dispatcher, the conductor and engineer must receive track bulletins affecting their train's movement:

- By a track warrant, unless the track warrant shows 'NONE' or 'NO.'
- or
- In a manner designated by special instructions. All rules that apply to track bulletins also apply.

The conductor and engineer must have copies of all track bulletins and other instructions required. Each crew member must read and understand them.

All crew members are responsible for complying with the requirements of track bulletins and reminding each other of those requirements.

At the initial station, when outbound crew members receive track warrants and track bulletins from inbound crew members, the conductor and engineer must compare the track warrants and track bulletins with each other and with the train dispatcher before proceeding.

At locations where track warrants listing track bulletins are received by printer or fax, crew members must verify that route description, if printed, covers the intended route of their train and that the track warrant includes the correct train ID and train symbol of their train. If it does not, contact the train dispatcher and determine if the track warrant is valid. Also, crew members must check the date and "OK" time on the track warrant and if the track warrant is over 4 hours old, contact the train dispatcher and determine if additional track bulletins are needed.

Note: After receiving track warrant, if a crew is assigned to operate a train with a train symbol different than the one listed on their track warrant, the above applies.

Application:

Having a copy of the '**Track Condition Summary**' meets the requirement of having a copy of the bulletins listed.

Rule Updated Date

May 2, 2016

System Special Instructions

Effective Date: May 2, 2016

[^Top](#)

15.1.1: Changing Address of Track Warrants or Track Bulletins

If the address must be changed on a track warrant used to deliver track bulletins only or a track bulletin that does not grant authority according to Rule 15.3 (Authorizing Movement Against the Current of Traffic), the train dispatcher may verbally change the train symbol, engine identification, direction, or date. However, crews performing yard or hostling service, using the main track at a yard or terminal, may change the engine number or train symbol on track warrants or track bulletins received from the train dispatcher without communicating with the train dispatcher.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

15.2: Protection by Track Bulletin Form B

Display track flags as specified in Rule 5.4.3 (Display of Yellow-Red Flag) and Rule 5.4.7 (Display of Red Flag).

A train must not enter the limits unless instructed by the employee in charge. A train within the limits at the time the track bulletin Form B takes effect must not make further movement until instructed by the employee in charge.

A crew member must attempt to contact the employee in charge sufficiently in advance to avoid delay, giving the train's location and track being used. The crew member must inform the employee in charge if there are any excessive dimension loads in the train. The employee in charge will use the following format to establish communication with the train:

Foreman (name and/or gang number) using Track Bulletin No.____ (specifying line number when necessary) between MP____ and MP____ (specifying subdivision when necessary).

Trains within the limits, unless otherwise restricted, must move at the speed(s) specified by the employee in charge as stated in Item A (Instructions).

A. Instructions

After communication with the train has been established, the employee in charge will use the following format to grant a train permission to proceed through the Form B limits:

- (Train ID) may pass the red flag at MP____ and proceed at (one of the following), (specifying track when necessary):
 - "Maximum Authorized Speed"
 - "Restricted Speed"
 - A speed specified by the employee in charge

Two additional speeds may be given to restrict a train's movement through a portion of the limits, by adding the following:

- Do not exceed ____MPH between/at MP____ and MP____ (or other location).

To require a train to stop at a designated location within the limits, add the following:

- Stop at MP____ (or other location) until additional instructions are received.

When men or equipment foul adjacent track(s), add the following:

- Men or equipment fouling (specify track).

B. Repeat Instructions

A crew member must repeat the above instructions, and the employee giving the instructions must acknowledge them before they can be followed.

Once instructions are received from employee in charge, if the track route changes from previous instructions received, contact employee in charge to determine that original instructions received are valid on new track route before proceeding on the new route. The movement must not change direction without permission from the

employee in charge.

Application:

When two Form B track bulletins meet at adjoining subdivisions resulting in a continuous Form B restriction with the same employee in charge and the same time limits, the employee in charge may grant permission and give instructions to the train concerning both Form B's at the same time. The communication will begin using the following format:

Foreman (name) using 2 track bulletins. Track Bulletin No. ____ Line No. ____ Subdivision ____ and Track Bulletin No. ____ Line No. ____ Subdivision ____ between MP ____ and MP ____ (outer mileposts).

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

15.2.1: Protection for On-Track Equipment

Track bulletin Form B may be used to protect on-track equipment, such as rail detector cars, without using yellow-red flags. Identify protected equipment in the track bulletin.

While trains, engines, and protected equipment are in track bulletin limits, they will otherwise be governed by Rule 15.2 (Protection by Track Bulletin Form B). The same track bulletin must not protect other gangs and equipment.

Rule Updated Date

April 7, 2010

[^Top](#)

15.2.2: Protection of Non-Railroad Contractors

When authorized non-railroad employees or non-railroad contractors are working near a main track or controlled siding, protection will be provided as outlined below.

- When working within 10 feet of the track, protection will be provided by use of a track bulletin, track and time, track permit, track warrant, or other means of protection. Except in California or when work will be performed foul of the track, a Form C track bulletin may be used:

"EFFECTIVE ON (DATE) FROM (TIME) UNTIL (TIME) BETWEEN MP___ AND MP___
PROCEED PREPARED TO STOP SHORT OF MENAND EQUIPMENT NOT TO EXCEED
20 MPH UNLESS INSTRUCTED OTHERWISE BY FOREMAN (NAME)."

Train receiving track bulletin must proceed within the limits prepared to stop short of men and equipment and not exceed 20 MPH until leading wheels have cleared the limits unless instructed otherwise by the employee in charge. Whistle signal 5.8.2 (8) will be sounded.

- When working between 10 and 25 feet of the track, trains will be notified of their presence by issuance of a Form C track bulletin that reads:

"CONTRACTORS ARE WORKING AT LEAST 10 FEET FROM THE TRACK AT THE
FOLLOWING LOCATION(S): (IDENTIFIED AT MP___ OR BETWEEN MP___ and
MP___)."

A watchman must ensure workers and equipment remain at least 10 feet from the track.

Railroad employees who observe work being performed within the boundaries of railroad right-of-way without notification as outlined above should report this information to the train dispatcher for further action.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

15.3: Authorizing Movement Against the Current of Traffic

Where Rule 9.14 (Movement with the Current of Traffic) is in effect, a track bulletin may authorize movement against the current of traffic as follows:

1. "(Train) will use _____ track against the current of traffic (point) to (point)."

The train must use only the track specified between these points. Opposing trains must not leave the last point until the train arrives. The train dispatcher must not authorize a following train to move against the current of traffic until the previous train has cleared the last point.

The example may be modified as follows:

- a. "After (opposing train) arrives at (point) (train) will use _____ track against the current of traffic (point) to (point)."

The train that will move against the current of traffic must not leave the first point until the opposing train arrives.

Trains directly affected in both directions must receive this track bulletin and must not:

- Clear the main track.

- Allow a following train to pass.
OR
 - Pass a preceding train, unless authorized by the train dispatcher.
2. "(Time) until (time) (date) all trains use ____ track between (point) and (point). All trains must stop before fouling _____ track between these points unless directed to proceed by employee in charge of switches or by train dispatcher."

This bulletin may also contain information on public crossing protection, switches spiked, intermediate flagman, and so forth.

Following Movement. A train may not follow another train against the current of traffic until the previous train has cleared the limits, passed a designated location, or passed a flagman located at the next intermediate point. Flag protection is not required against following trains.

Flagman Provided. When flagmen are provided, the example will be modified by adding:

- "Intermediate flagman located at (point). Trains moving against the current of traffic must stop short of flagman unless directed to proceed."

Extending Time. Time may be extended by issuing another track bulletin as follows:

- "Track bulletin No. __ is extended until (time)."

This bulletin will be used when one or more tracks will be removed from service, and all trains in both directions must use the remaining track as directed by the train dispatcher or an employee in charge of switches at each end of the designated limits.

The train dispatcher will authorize movement between the designated points and issue the track bulletin and necessary instructions to the employee in charge of switches. This employee may verbally direct movement or use hand signals. Also, the train dispatcher may use a controlled signal indication to authorize movement.

All affected trains must receive a copy of the track bulletin.

Rule Updated Date

April 7, 2010

[^Top](#)

15.4: Protection when Tracks Removed from Service

Before a track is removed from service it must be protected.

A track bulletin may protect tracks removed from service by designating the track and naming the points at each end of the track. Trains must not use this track unless the track bulletin states the name or title of an employee who may authorize use. This person will direct all movements. Movements must be made at restricted speed unless instructed otherwise by the employee in charge. Movements may then proceed as instructed and in accordance with signal indications.

The control operator must grant authority to pass an absolute signal displaying a Stop indication at control points at either end of the out of service track. Except at interlockings, after stopping, movements may pass Stop indications within the out of service track. When required, the train dispatcher must advise crews of alternate routes and switch positions.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

15.5: Protection When Tracks Blocked With Equipment

Notify the train dispatcher when main tracks, sidings, or other tracks that are normally clear are blocked with equipment and cannot be cleared.

When the main track is blocked, provide protection as specified by Rule 6.20 (Equipment Left on Main Track).

Rule Updated Date

April 7, 2010

[^Top](#)

15.6: Change of a General Order, Special Instruction, or Rule

When authorized by the designated manager, a track bulletin may be used to issue, change, or cancel general orders, special instructions, or rules.

General orders or special instructions cancelled by track bulletins must not be reinstated. The track bulletin must remain in effect until the general order that contains the change is posted.

Rule Updated Date

April 7, 2010

[^Top](#)

15.7: Copying Track Bulletins

The conductor and the engineer must each have a copy of the track bulletins issued to their train, and each crew member must read and understand them. The copy must show the date. The following must occur when track bulletins are transmitted verbally:

1. An employee will enter all of the information on the track bulletin.
2. The employee will repeat the information to the train dispatcher.
3. The train dispatcher will check it and, if correct, will say "OK" and give the time and his initials.
4. The employee will enter the "OK" time and the train dispatcher's initials on the track bulletin and repeat them to the train dispatcher.

Employees may relay track bulletins.

Rule Updated Date

April 7, 2010

[^Top](#)

15.8: Duplicating Track Bulletins

Employees who reproduce track bulletins with a duplicating machine do not need to repeat them to the train dispatcher.

Duplicated track bulletins must not be delivered or used until they are checked and verified as:

- Legible.
- Duplicated in their entirety.

Rule Updated Date

April 7, 2010

[^Top](#)

15.9: Mechanical Transmission of Track Bulletins

Repetition is not required when track bulletins are transmitted mechanically. The "OK" time will be given when the track bulletin is issued.

Rule Updated Date

April 7, 2010

[^Top](#)

15.10: Retaining Track Bulletins

Employees must keep and comply with track bulletins on all trips during the tour of duty when track bulletins were received.

When directed by the train dispatcher, track bulletins may be retained for use during the next tour of duty. Before initiating movement on the main track on the next tour of duty, a crew member must verify from the train dispatcher that no additional track bulletins are needed.

Rule Updated Date

April 7, 2010

[^Top](#)

15.11: Not Used

Rule Updated Date

April 7, 2010

[^Top](#)

15.12: Relief of Engineer or Conductor During Trip

When being relieved before a trip is finished, contact the train dispatcher and comply with instructions concerning the handling of track warrants, track bulletins, and other instructions.

When crew members are called to relieve a train at other than the initial station, crew members must contact the train dispatcher before leaving the initial station and determine if any track warrants, track bulletins, or other instructions must be obtained.

Comparison of Information

The relieving conductor and engineer must compare:

- Track warrants, track bulletins, instructions, and pertinent information with each other.
- Their track warrant for bulletins number with the train dispatcher. The train dispatcher will verify that the warrant includes all required track bulletins and will provide any additional restrictions required for the route.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

15.12.1: Relief of Engineer or Conductor at Crew Change

When making a crew change, relieving crew members must determine from the inbound crew if there are any unforeseen restrictions issued that have not been fulfilled/traversed or tasks in progress (e.g. air test). When not relieved by another crew, the inbound crew must leave this information in writing for the relieving crew and notify the dispatcher of tasks not completed. In addition, at locations where a yardmaster is on duty, the yardmaster must also be notified.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

15.13: Voiding Track Bulletins

To void a numbered line on a track bulletin, a part of a track bulletin, or an entire track bulletin, the train dispatcher may do one of the following:

A. Voiding Track Bulletins Verbally

Void the track bulletin by verbally using one of the following examples:

1. "Line (number) of track bulletin No. reading (quote the line to be voided) is void."
2. "That part of track bulletin No. reading (quote the part to be voided) is void."
3. "Track bulletin No. is void."

Employee must repeat the information to the train dispatcher. If correct, the word "VOID" will be entered to indicate that portion is no longer in effect.

B. Issue Track Bulletin or a Track Warrant to Void a Track Bulletin

Issue a track bulletin or use the lines designated on Box 12 on a track warrant using one of the following examples:

1. "Line (number) of track bulletin No. ___ is void."
2. "That part of track bulletin No. ___ reading (quote the part to be voided) is void."
3. "Track bulletin No. ___ is void."

Where paper copies are used, employee will keep a copy of the track warrant or track bulletin that made it void and the word "VOID" will be entered to indicate that portion is no longer in effect.

The track bulletin or the part of the track bulletin indicated will no longer be in effect.

Rule Updated Date

September 15, 2015

System Special Instructions

Effective Date: May 2, 2016

[^Top](#)

15.13.1: Verbally Raising a Speed Restriction

The train dispatcher may verbally raise the speed on an existing speed restriction, Rule 2.14 (Mandatory Directive) applies. The train dispatcher must identify the existing speed restriction; e.g., Form A 1234, line 2. After a crew member informs the train dispatcher they have located the speed restriction and are ready to copy, the train dispatcher will use the following format:

(Train ID) Track Bulletin _____, Line No MP ___ to MP ___, ___MPH (adding track if necessary), speed is increased to ___ MPH.

The employee will draw a line through the existing speed on the track condition summary form, write the new speed adjacent to the old speed, and then repeat the information to the train dispatcher. If the information is correct, the train dispatcher will state "OK", with the time and the train dispatcher's initials, which must be repeated by the employee.

The new speed must not be acted upon until the train dispatcher states "OK", and gives the time and the train dispatcher's initials.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

15.14: Delivering Track Bulletins

Employees who copy track bulletins for delivery must deliver copies to all those addressed, unless the track bulletin is voided or transferred to a relieving employee. When employees have delivered copies to all addressed, they must keep a copy on file.

Rule Updated Date

April 7, 2010

[^Top](#)

[Union Pacific Rules](#)

UPRR - General Code of Operating Rules

16.0: RULES APPLICABLE ONLY IN DIRECT TRAFFIC CONTROL (DTC) LIMITS

- [16.0: RULES APPLICABLE ONLY IN DIRECT TRAFFIC CONTROL \(DTC\) LIMITS](#)
- [16.1: Authority to Enter DTC Limits](#)
- [16.1.1: Switches Between DTC Blocks](#)
- [16.2: DTC Authority](#)
- [16.3: Movement in a Specified Direction](#)
- [16.3.1: Leaving the Main Track](#)
- [16.4: Work and Time](#)
- [16.5: Changing DTC Authority](#)
- [16.6: Releasing DTC Authority](#)
- [16.7: Communication Failure](#)

16.0: RULES APPLICABLE ONLY IN DIRECT TRAFFIC CONTROL (DTC) LIMITS

Rule Updated Date

April 20, 2012

[^Top](#)

16.1: Authority to Enter DTC Limits

The timetable will designate DTC limits. A train may enter DTC limits only after receiving authority from the train dispatcher. Men or equipment may be issued DTC authority in the same manner as trains. DTC territory will not include territory where Rule 6.13 (Yard Limits) or Rule 6.14 (Restricted Limits) is in effect.

Rule Updated Date

April 20, 2012

[^Top](#)

16.1.1: Switches Between DTC Blocks

Switches between DTC blocks may be occupied only when authority includes at least one block on each side of the switch; however, men or equipment may be authorized to occupy a switch located between DTC blocks without authority on each side of the switch when the DTC authority includes the name of the switch and the instructions "Switch Yes." DTC authority must not be released until the rear of the movement has completely entered the adjoining block.

Rule Updated Date

April 20, 2012

[^Top](#)

16.2: DTC Authority

The train dispatcher will issue DTC authority to a crew member on the head end of the train when possible. An employee operating the controls of a moving engine or on-track equipment may not copy DTC authority.

A. Recorded in Writing

When transmitted verbally, the employee who receives or releases DTC authority must record it in writing and include the following:

1. Name of first and last DTC block where authority is issued.
2. Time that work and time expires.
3. Train identity when DTC authority is issued behind a train or radio blocking behind a preceding train is in effect.
4. Time DTC authority is released to the train dispatcher.

DTC authority must not be transferred to a relieving crew, unless authorized to do so by the train dispatcher.

When verbal authority is received from the train dispatcher to leave equipment in a DTC block, the train dispatcher may instruct a crew member to void the DTC authority.

Employees cannot act upon DTC authority until the train dispatcher says, "That is correct."

B. Multiple Authorities

Not more than one DTC authority may be issued in the same DTC block except:

1. In ABS territory, as provided by Rule 16.3 (Movement in a Specified Direction), authority may be issued to more than one train in the same direction.
2. As provided by Rule 16.4 (Work and Time).

or

3. Where radio blocking is designated by special instructions, in non-signaled territory, more than one train may be authorized to proceed in the same direction within the same or overlapping limits, provided the following train:

- Is notified on DTC authority of the identity of the preceding train.
- Notifies the crew of the preceding train that radio blocking has been authorized stating the limits.
- Does not occupy the block limits ahead of the preceding train.

- Is notified by the preceding train that the entire train has cleared a specific block. Location specified must not be beyond block limits of the following train. The following words must be used: "(Train) clear of (block)."
- Does not proceed beyond the last block the preceding train has reported to have cleared.

All instructions between trains must be written, repeated, and acknowledged with "That is correct" before being acted on. These written instructions between the trains must be retained until the end of tour of duty.

Written Instructions Between Trains:

"(Preceding Train ID) has cleared (Block) at (Time)." When all available lines on DTC form have been filled in, new DTC authority must be obtained.

Notify the train dispatcher if communication cannot be established between the two trains. If necessary, radio blocking information may be relayed only by the train dispatcher.

The last named point of the following train's authority must not extend beyond the authority of the preceding train.

In the application of Rule 6.4 (Reverse Movements) and Rule 6.6 (Picking Up Crew Member), the movement must not enter the last block reported cleared to the following train.

Rule Updated Date

April 20, 2012

[^Top](#)

16.3: Movement in a Specified Direction

Issue Format

One or Two Blocks. The train dispatcher will issue authority and an employee will acknowledge it using the following sample format:

- Train Dispatcher:** "RR 4321 East, with Engineer Jones, you are authorized to proceed Eastward in one block, Anna."
- Crew Member:** "RR 4321 East, with Engineer Jones, I am authorized to proceed Eastward in one block, Anna."
- Train Dispatcher:** "RR 4321 East, that is correct."

More than Two Blocks. The train dispatcher will issue authority in more than two blocks using the following sample format:

- Train Dispatcher:** "RR 4321 East, with Engineer Jones, you are authorized to proceed Eastward in three blocks, Anna through Cloy."

Rule Updated Date

April 20, 2012

[^Top](#)

16.3.1: Leaving the Main Track

A train authorized to proceed in one direction must inform the train dispatcher when it leaves the main track before reaching the last named point, unless a crew member is left to prevent a following movement from passing.

Rule Updated Date

April 20, 2012

[^Top](#)

16.4: Work and Time

A. Issue Requirements

1. Work and time authority may be issued to an employee in charge of on-track equipment when:

- The DTC block is clear.
- The DTC block is occupied by a train and/or employee in charge of on-track equipment that has already been issued work and time. Before joint work and time may be issued, the train dispatcher must first notify the engineer of train or employee in charge of on-track equipment affected that the DTC block will be jointly occupied. All movements must be made at restricted speed within joint work and time limits.

or

- All trains issued Rule 16.3 (Movement in a Specified Direction) have passed the location where the track will be occupied, and the employee receiving the DTC authority is notified that work and time is granted behind such trains.

2. Work and time authority may be issued to a train when:

- The DTC block is clear.
- The DTC block is occupied by a train and/or employee in charge of on-track equipment that has already been issued work and time. Before joint work and time may be issued, the train dispatcher must first notify the engineer of train or employee in charge of on-track equipment affected that the DTC block will be jointly occupied. All movements must be made at restricted speed within joint work and time limits.

or

- All trains issued Rule 16.3 (Movement in a Specified Direction) have passed the location where the track will be occupied and the employee receiving the DTC authority must be notified that work and time is granted behind such trains as prescribed by Rule 16.2 (DTC Authority).

A train or on-track equipment issued work and time may occupy the designated block and move in either direction.

An employee in charge of on-track equipment granted work and time behind a train must not pass train(s) specified.

B. Issue Format

One or Two Blocks. The train dispatcher will issue work and time and an employee will acknowledge it using the following sample format:

Train Dispatcher: "RR 4321 East, with Engineer Jones, I am granting you work and time in one block, Anna, until 10:10 AM."

Crew Member: "RR 4321 East, with Engineer Jones, I am granted work and time in one block, Anna, until 10:10 AM."

Train Dispatcher: "RR 4321 East, that is correct."

More than Two Blocks. The train dispatcher will issue authority in more than two blocks using the following sample format:

Train Dispatcher: "RR 4321 East, with Engineer Jones, I am granting you work and time in 3 blocks, Anna through Cloy, until 10:10 AM."

Crew Member: "RR 4321 East, with Engineer Jones, I am granted work and time in three blocks, Anna through Cloy, until 10:10 AM."

Unless the train and/or employee in charge of on-track equipment receives a time extension, they must clear the block and report "Released" before the time limit expires. The train dispatcher may issue an unspecified time limit by using the words "until released."

A train dispatcher must not authorize a train to enter a DTC block under Rule 16.3 (Movement in a Specified Direction) until work and time in that block is released.

C. Additional Time

Trains or the employee in charge of on-track equipment must release work and time before the time granted expires. If the train or employee in charge requires additional time, the authority must be obtained from the train dispatcher before time expires. If a train crew member or employee in charge is unable to contact the train dispatcher, and the time limit expires, authority is extended until the train dispatcher is contacted.

Rule Updated Date

April 20, 2012

[^Top](#)

16.5: Changing DTC Authority

When it becomes necessary to change the authority previously granted to a train, a new authority will be issued in accordance with Rule 16.3 (Movement in a Specified Direction) or Rule 16.4 (Work and Time). After the "(_____), that is correct" response is received from the train dispatcher, the authority previously granted becomes void.

The train dispatcher must notify the engineer before withdrawing previously issued DTC authority.

Rule Updated Date

April 20, 2012

[^Top](#)

16.6: Releasing DTC Authority

Unless the train dispatcher specifies otherwise, when a train with directional authority clears a DTC block, an employee will immediately release it to the train dispatcher. The train must not re-enter the DTC block it has been released from.

Before a DTC block is released, engineer and conductor must communicate with each other and confirm that their train is clear of DTC block(s) to be released.

A. Release Format

One or Two Blocks. An employee will release a DTC block, and the train dispatcher will acknowledge it using the following sample format:

Crew Member: "RR 4321 East, with Engineer Jones, I am releasing one block, Anna."

Train Dispatcher: "RR 4321 East, with Engineer Jones, you are releasing one block, Anna."

Crew Member: "Train dispatcher, that is correct."

More than Two Blocks. An employee will release more than two blocks using the following sample format:

Crew Member: "RR 4321 East, with Engineer Jones, I am releasing three blocks, Anna through Cloy."

A DTC block is not released until the employee releasing the block reports, "Train dispatcher, that is correct."

B. Operating in Non-Signaled or DoubleTrackTerritory

In non-signaled or double track territory, a train without a crew member on the rear of the train may release a DTC block only when the complete train is clear of the limits, which is determined by one of the following:

1. The rear of the train has an operating rear-end telemetry device, and the air pressure on the head-end device indicates brake pipe continuity.
2. An employee verifies that a marker is on the rear of the train.
3. A crew member can observe the rear car of the train on which the marker has been placed.
4. A trackside warning detector transmits an axle count for the train, and the axle count duplicates the axle count transmitted by the previous trackside warning detector.

In addition, a train clearing in a siding or other track must comply with requirements outlined in Rule 8.3 (Main Track Switches) before reporting clear of the limits.

Rule Updated Date

April 20, 2012

[^Top](#)

16.7: Communication Failure

If communication fails, a third party may relay the authority to enter and/or release a DTC block as follows:

- The train dispatcher must transmit the DTC authority to the third party.
- The third party must repeat it back to the train dispatcher.
- If correct, the train dispatcher will respond, "(Third Party Identification), that is correct for relay," which authorizes the third party to transmit the DTC authority to a crew member.
- The crew member receiving the DTC authority must repeat it back to the third party.
- If correct, the third party will respond, "(_____), that is correct" and inform the train dispatcher that DTC authority has been relayed correctly.

Rule Updated Date

April 20, 2012

[^Top](#)

[Union Pacific Rules](#)

UPRR - General Code of Operating Rules

17.0: RULES APPLICABLE ONLY IN AUTOMATIC TRAIN CONTROL (ATC) TERRITORY

- [17.1: Automatic Train Control Territory](#)
- [17.2: Taking Charge](#)
- [17.3: Cut In and Cut Out Requirements](#)
- [17.4: Departure Test Requirements](#)
- [17.4.1: Departure Test Reporting](#)
- [17.4.2: ATC Automatic Cut-in Circuit](#)
- [17.5: High Speed Setting](#)
- [17.5.1: Over 40 MPH](#)
- [17.5.2: Under 40 MPH](#)
- [17.5.3: Restricting Cab Signal](#)
- [17.6: Conforming with Block Signals](#)
- [17.6.1: Approaching Diverging Route](#)
- [17.7: ATC Failure/Cut-out Enroute](#)
- [17.7.1: Speed Indicator in ATC](#)
- [17.7.2: ATC Motion Light](#)
- [17.7.3: Audible Indicator](#)
- [17.8: Improper Display](#)

17.1: Automatic Train Control Territory

ATC territory is specified in special instructions. An engine must not be operated in ATC territory if it is not equipped with an operable ATC system unless otherwise authorized by special instructions or the train dispatcher.

Rule Updated Date

April 7, 2010

[^Top](#)

17.2: Taking Charge

When taking charge of an engine equipped with ATC in ATC territory or entering such territory, engineers must know that:

1. The ATC system is cut in and sealed or locked on engines equipped.
2. The following devices are sealed (on engines equipped) with a mechanical seal:
 - Speed indicator case.

- Speed indicator cables.
- High speed whistle cutout cock.

Rule Updated Date

April 7, 2010

[^Top](#)

17.3: Cut In and Cut Out Requirements

The ATC system, in part or in its entirety, must not be cut out in ATC territory unless:

- Train dispatcher grants permission.

or

- Failure of the ATC system prevents train movement at restricted speed (unable to recover the air) and crew is unable to immediately contact the train dispatcher. The train dispatcher must be notified as soon as practical. Notification must include if cab signals are operative.

The train dispatcher may grant permission to a crew member to cut out the ATC system when:

- It has failed. Before granting permission to the crew to cut out the ATC the train dispatcher must determine if the cab signals are operative.

or

- Required for movements against the current of traffic at speeds above restricted speed.

A. Cutting In ATC

To cut in ATC:

1. Turn on the ATC system.
2. Acknowledge when the acknowledging horn sounds.
3. Cut in the ATC actuator and seal or lock.

B. Cutting Out ATC

To cut out ATC:

1. Break the seal or unlock and cut out the ATC actuator.
2. Turn off the power to the ATC system.

If ATC is cut out due to failure enroute, at the next stop the engineer must cut in the ATC to determine if it is again operable. Train dispatcher must be notified if ATC is again operative or continues to fail and if cab signals are operative if previously cut out.

Rule Updated Date

April 7, 2010

[^Top](#)

17.4: Departure Test Requirements

A departure test is required:

- Before entering ATC Territory .
or
- When the ATC is cut in after being cut out enroute within ATC territory.

A. Energized Test Loop

While the engine is standing on energized test loop:

1. The cab signal should display a Clear aspect.
2. When the test loop is de-energized or when the engine is moved off of the test loop, the aspect will change to a Restricting and the acknowledging horn will sound. Do not acknowledge the horn and do not move the brake valve handle.
3. A penalty brake application should occur within 8 seconds.
4. Recover the air.
5. When the horn sounds again, acknowledge to prevent brake application.

Note: To recover the air after an ATC penalty brake application, acknowledge the horn or alarm and move the brake valve handle to SUPPRESSION until the PCS light has gone out. The brakes may then be released.

Receivers on Both Ends: When an engine has ATC receivers on both ends and is standing on energized track, the cab signal should display Clear.

1. Place the reverser in Reverse position. The aspect will change to Restricting and the acknowledging horn will sound.
2. Do not acknowledge the horn and do not move the brake valve handle. A penalty brake application should occur within 8 seconds.
3. Recover the air.
4. When the horn sounds again, acknowledge to prevent brake application.

B. De-energized Track

When engine is standing on de-energized track:

1. Release the brakes, but do not acknowledge the acknowledging horn.
2. A penalty brake application should occur within 8 seconds.
3. Recover the air

4. When the horn sounds again, acknowledge to prevent brake application.

Application:

Procedures for Locomotives with Automatic Testing Equipment

A. Locomotives with solid state Union Switch & Signal ATC/CCS System:

1. With the locomotive standing on dead track, fully apply the independent brake and release the automatic brake and:
 - a. Place the generator field switch in the ON position.
 - b. Turn on the signal circuit breaker.
 - c. Place the reverser in Forward.
2. Place CNW Cut-out switch in cut in position.
3. Place CNW Cut-out cock in cut in position and seal.
4. After opening the departure test box, put the test switch in the ON position. As the ATC system begins internal testing, Clear and Restricting cab signals are turned off and the motion light flashes.
5. After the internal test is complete (approximately 10 seconds), a Clear cab signal is illuminated and the acknowledge alarm is activated.
 - Press and release the acknowledge button.
 - a. The Clear is then turned off.
 - b. A Restricting cab signal is illuminated and acknowledge alarm is activated. Press and release the acknowledge button.
 - c. The Restricting is then turned off.
6. The system then drives the speedometer to:
 - a. Locate the Union Pacific overspeed setting and repeats this process four times.
 - b. Test the CNW Restricted overspeed setting of 23 MPH.
 - c. A Restricting is illuminated and acknowledge alarm is activated. Press and release the acknowledge button. The system then

drives the speedometer to the CNW high speed setting.

d. A Clear is illuminated and acknowledge alarm is activated. Press and release acknowledge button.

e. The Clear is turned off and speedometer is returned to 0 MPH.

7. Fully release independent brake.

a. The acknowledge alarm is activated (do not acknowledge).

b. A penalty brake application should occur within 8 seconds.

c. Recover the air.

8. The successful completion of the departure test will result in:

a. The overspeed alarm beeping continuously.

b. All signal lights flashing.

9. Place the Departure Test Switch to OFF position.

10. If the locomotive is to be operated in non ATC territory prior to entering ATC territory, push the Arm button after completing the departure test (see Item 8).

11. If departure test is unsuccessful, repeat the test. If the test is again unsuccessful, perform an ATC departure test as prescribed by Rule 17.4.

B. Locomotives with MICROCAB System:

1. Turn on the DEPT TEST SWITCH and:

a. The MOTION indicator is illuminated throughout Departure Test. The overspeed alarm activates intermittently for 1 second, then goes silent to indicate the start of the test.

b. The system waits for 6 seconds before proceeding to the next step.

c. The overspeed alarm activates intermittently for 1 second, then is silent to indicate the end of the delay.

d. Within 5 seconds the Clear cab signal is illuminated.

2. When the acknowledge alarm is activated, the acknowledge switch must be pressed and released within 6 seconds to avoid a penalty brake application.
 - a. Within 5 seconds the Clear is extinguished and the Restricting cab signal illuminated. When the acknowledge alarm is activated press and release the acknowledge switch.
 - b. The Restricting cab signal is then extinguished. Failure to respond within 6 seconds results in a penalty brake application.
 - c. The overspeed alarm is activated intermittently for 1 second, then is silent to indicate the completion of carrier tests.
3. The system then drives the speedometer to the high speed setting and:
 - a. Visually confirm that the expected speed (within 3 MPH) is displayed by the speedometer.
 - b. The acknowledge alarm is activated continuously. Press and release the acknowledge switch.
4. The system then drives the speedometer to the restricted overspeed of 23 MPH. Visually confirm that the speedometer displays the expected speed (within 1 MPH).
 - a. The acknowledge alarm sounds continuously. Press and release the acknowledge switch.
 - b. The system stops driving the speedometer and it returns to 0 MPH.
 - c. The overspeed alarm sounds for approximately 1 second.
 - d. When the alarm is silent, the test is confirmed.
5. The system waits indefinitely for the operator to press and release the acknowledge switch.
 - a. Upon releasing the switch the overspeed alarm is activated intermittently for 1 second, then silenced to indicate the start of a penalty delay.
 - b. In about 6 seconds, the system initiates a penalty brake application. The acknowledge alarm sounds continuously.
 - c. Recover the air.

6. The intermittent sound of the overspeed alarm prior to the DEPT TEST SWITCH being turned off indicates that the Departure Test has been successfully made.

- a. Turn off the DEPT TEST SWITCH. A Restricting cab signal is illuminated.
- b. The acknowledge and over speed alarms are silent.

If the locomotive is to be operated in non ATC territory prior to entering ATC territory, push the Arm button after completing the departure test.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

17.4.1: Departure Test Reporting

Records of ATC and ATS tests:

- Must be retained for 92 days.
- Must be placed in the engine cab.

1. When Mechanical Department employees perform the test:

- One part of the form must be retained at the test location for 92 days.
- The other must be placed in the inspection holder in the engine cab.

2. At points where engineers are required to perform ATC or ATS departure tests, engineers must complete the form, place it in the inspection holder of the engine, and notify the train dispatcher. Crew members are not to remove this form unless specifically instructed to do so.

3. The train dispatcher, unless instructed otherwise, must record the date, time, location, engine number and name of the engineer.

Rule Updated Date

April 7, 2010

[^Top](#)

17.4.2: ATC Automatic Cut-in Circuit

A departure test entering ATC territory is not required for engines equipped with the automatic ATC cut-in circuit when the following conditions are met:

- The ATC actuator is cut in and sealed.
- The motion light is illuminated enroute to ATC territory at speeds of 6 MPH or more.

At ATC Automatic Cut-in Test Locations:

- The cab signal will display a Clear aspect when passing a "B" sign (Beginning ATC test section). The speed whistle will sound for 3 or 4 seconds.
- The cab signal will change to a Restricting aspect when the "E" (End ATC test section) is passed.
 - When train speed exceeds 40 MPH the high speed whistle will sound until a Clear aspect is displayed.
 - When train speed is below 40 MPH the horn will sound and must be acknowledged.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

17.5: High Speed Setting

When a cab signal displays a Clear aspect and the train speed exceeds the high speed setting, a high-speed whistle will sound continuously. This will require a SUPPRESSION brake application within 6 seconds to prevent a penalty brake application.

Rule Updated Date

April 7, 2010

[^Top](#)

17.5.1: Over 40 MPH

The high speed whistle will sound when the speed is more than 40 MPH when the cab signal changes to a Restricting aspect.

1. Move the brake valve handle to SUPPRESSION within 6 seconds to prevent a penalty brake application.
2. When speed is reduced to less than 40 MPH, the high speed whistle will stop and the acknowledging horn will sound.
3. Acknowledge this horn. If the cab signal continues to display Restricting, speed must immediately be reduced to restricted speed.

If restricted speed is not reached within 70 seconds after the acknowledging horn was acknowledged, a penalty brake application will occur unless the brake valve handle is in SUPPRESSION.

Rule Updated Date

April 7, 2010

[^Top](#)

17.5.2: Under 40 MPH

The acknowledging horn will sound if the cab signal changes from Clear to Restricting when the speed is under 40 MPH.

1. Acknowledge the horn within 6 seconds to prevent a penalty brake application.
2. If the cab signal continues to display Restricting, train speed must immediately be reduced to restricted speed.

If restricted speed is not reached within 70 seconds after the acknowledging horn was acknowledged, a penalty brake application will occur unless the brake valve handle is in SUPPRESSION.

Rule Updated Date

April 7, 2010

[^Top](#)

17.5.3: Restricting Cab Signal

When cab signal changes from a Clear to a Restricting aspect, trains exceeding Restricted Speed must immediately reduce to Restricted Speed. While the cab signal continuously displays a Restricting aspect, the acknowledging horn will sound to alert the crew members of the restriction. When the speed is approaching the restricting over speed setting, the low speed alarm will sound to alert crew members that speed must be reduced.

Rule Updated Date

April 7, 2010

[^Top](#)

17.6: Conforming with Block Signals

Cab signal indications do not supersede the indication displayed on block and interlocking signals. The most restrictive block or cab signal indication must be complied with. However, when the cab signal changes from Restricting to Clear after having passed the block or interlocking signal, the train may immediately comply with the cab signal indication.

Except where cab signals are capable of displaying diverging route aspects, when initiating movement or when the cab signal changes from Restricting to Clear after the engine passes a signal that governs the approach to a diverging route, the train must approach the next signal at the speed prescribed for the most restrictive route at that location until the next signal is visible.

Note: When the cab signal cycles from Clear to Restricting and immediately back to Clear, the train may continue at normal speed.

Rule Updated Date

April 7, 2010

[^Top](#)

17.6.1: Approaching Diverging Route

When the cab signal changes from Restricting to Clear after the engine passes a signal displaying an Approach or a more restricting indication and the next signal can display an indication for a diverging route, the train must approach the next signal at the speed prescribed for the most restrictive route at that location. However, if the signal is seen to display an indication for a more favorable route, the speed for that route governs.

Rule Updated Date

April 7, 2010

[^Top](#)

17.7: ATC Failure/Cut-out Enroute

When any part of the ATC system is cut-out enroute:

1. Before an absolute block is established in advance of the train:
 - If cab signals are operative or movement will be entirely in a continuous block signal territory, proceed not exceeding 40 MPH.
 - or
 - If cab signals are not operative and movement is outside continuous block signal territory, proceed at restricted speed.
2. After an absolute block is established in advance of a train:
 - If cab signals are operative or movement will be entirely in continuous block signal territory, proceed in accordance with signal indications not exceeding 79 MPH.
 - If cab signals are not operative and movement is outside continuous block signal territory:
 - Passenger trains may proceed not exceeding 59 MPH.

 - Freight trains may proceed not exceeding 49 MPH.
3. Before an absolute block in advance of movement is established in ATC territory the train dispatcher must determine if:
 - The cab signals are operative
 - The absolute block in advance of movement will be entirely in territory with continuous fixed block signals.
 - a. If the cab signals are operative or the absolute block in advance of movement will be entirely in continuous block signal territory, the train dispatcher may establish an absolute block in advance of movement as provided by Rule 11.1 (Establishing an Absolute Block). Rule 11.2 (Signal Indications with Absolute Block) applies. If the cab signal changes to Restricting the train must stop.
 - b.

If the cab signals are inoperative and any part of the absolute block in advance of movement will be outside continuous block signal territory, the train dispatcher must not establish an absolute block in advance of movement until it is determined that no trains or engines:

- Occupy the limits ahead of the train being given the absolute block in advance of movement.
 - Will occupy the limits ahead of the train being given the absolute block in advance of movement.
- c. Rule 9.15 (Track Permit) or Rule 10.3 (Track and Time) establishes an absolute block when not issued joint.

Note: Continuous block signal territory is designated on the subdivision page where ATC is in effect.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

17.7.1: Speed Indicator in ATC

An inoperative or inaccurate speed indicator, as prescribed by Rule 1.39 (Accuracy of Speed Indicator) is considered an ATC failure. Rule 17.7 (ATC Failure/Cut Out Enroute) applies.

Rule Updated Date

April 7, 2010

[^Top](#)

17.7.2: ATC Motion Light

If the motion light is not on when the speed is 6 MPH or above, proceed in accordance with the cab signal indication but not to exceed 40 MPH. Rule 17.7 (ATC Failure/Cut Out Enroute) applies.

Rule Updated Date

April 7, 2010

[^Top](#)

17.7.3: Audible Indicator

If the audible indicator does not sound when the cab signal changes to a more restrictive indication or continues to sound when the cab signal change is acknowledged, it is considered an ATC failure. Rule 17.7 (ATC Failure/Cut Out Enroute) applies.

Rule Updated Date

April 7, 2010

[^Top](#)

17.8: Improper Display

If a cab signal displays Clear when it should display Restricting due to an open switch, occupied block, or other condition, the train must:

- Stop and warn other trains by radio of exact location and status of train.
- Contact the train dispatcher and be governed by his instructions. If the train dispatcher gives permission to proceed, the train must proceed at restricted speed until the train dispatcher establishes an absolute block in advance of movement.

Note: The cab signal indication may change within 300 feet of a hand operated switch (before or after). The cab signal may change from Restricting to Clear before (within 300 feet) an opened hand operated switch. This is normal due to track circuitry and would not be considered an improper display of the cab signal.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

[Union Pacific Rules](#)

[UPRR - General Code of Operating Rules](#)

GLOSSARY: Glossary

- [19.GL: GENERAL CODE OF OPERATING RULES GLOSSARY](#)

19.GL: GENERAL CODE OF OPERATING RULES GLOSSARY

Abbreviations

Use only the following abbreviations:

ABS Automatic Block Signal System

ACS Automatic Cab Signal System

AMTK Amtrak

ATC Automatic Train Control

ATS Automatic Train Stop

AUTH Authority

BO Bad Order

BRN Branch

BRT Block Register Territory

C Center

C & E Conductor and Engineer

COFC Container on Flat Car

CONDR Conductor

CP Control Point

CTC Centralized Traffic Control

DCS Dual Control Switch

DISPR Dispatcher

DIST District

DIV Division

DT Double Track

DTC Direct Traffic Control

E East

ENG Engine

ENGR Engineer

ESS East Siding Switch

EWD Eastward

FRT Freight

HER Head End Restriction

IM Intermodal

JCT Junction

MAX Maximum

MMT Multiple Main Track
MP Mile Post
MPH Miles Per Hour
MT Main Track
MW Maintenance of Way
N North
NO Number
NSS North Siding Switch
NWD Northward
OK Correct
OOS Out of Service
OPR Operator
ORIG Originating
OCT Other Controlled Track
PSGR Passenger
RC Radio Channel
RCO Remote Control Operator
RCZ Remote Control Zone
RECD Received
RE Region
S South
SDG Siding
SI Special Instructions
SSI System Special Instructions
SSS South Siding Switch
SUB Subdivision
SUBDIV Subdivision
SUPT Superintendent
SW Switch
SWD Southward
TOFC Trailer on Flat Car
TRK Track
TRN Train
TWC Track Warrant Control
W West
WSS West Siding Switch
WWD Westward
XO Crossover
YD Yard
YL Yard Limits
YM Yardmaster

Use the normal abbreviations for names of months.

ABS

See Automatic Block Signal System.

Absolute Block

A length of track that no train is permitted to enter while the track is occupied by another train.

Absolute Signal

A block or interlocking signal without a number plate, or designated by an A marker.

ACS

See Automatic Cab Signal System.

Adjacent Track

Parallel tracks that are not separated by a single lane roadway or similar distance are considered adjacent tracks.

Note: This definition only applies when determining if Track Breach Protection is required.

Articulated

Permanently connected multiple unit cars that share a common truck.

ATC actuator

An ATC brake applying apparatus.

ATS

See Automatic Train Stop System.

Automatic Block Signal System (ABS)

A series of consecutive blocks governed by block signals, cab signals, or both. The signals are activated by a train or by certain conditions that affect the block use.

Automatic Cab Signal System (ACS)

A system that allows cab signals and the cab warning whistle to operate automatically.

Automatic Train Control (ATC)

A system to enforce compliance with cab signal indications. If the train exceeds a predetermined speed for a given cab signal indication and speed is not reduced at a sufficient rate, brakes are automatically applied.

Automatic Train Stop System (ATS)

A system activated by wayside inductors positioned to apply the brakes automatically until the train stops.

Block

A length of track:

- Between consecutive block signals
- Between a block signal and the end of block system limits
- or
- In ATC limits, the use of which is governed by cab signals and/or block signals.

Block Register Territory (BRT)

A method of operation in non-signaled territory where trains, men, and equipment are authorized to occupy the main track in limits designated by the timetable.

Block Signal

A fixed signal at the entrance of a block that governs trains entering and using that block.

Block System

A block or series of consecutive blocks within ABS, ACS, CTC, or interlocking limits.

Breach

To enter an area between two adjacent tracks.

BRT

See Block Register Territory.

Cab Red Zone

A "Cab Red Zone" (CRZ) exists during critical times or when multiple tasks are occurring. During a Cab Red Zone, an environment must be created in the locomotive control compartment that focuses exclusively on controlling the train, verbally communicating restrictions, and proper application of the rules.

Cab Signal

A signal in the engineer's compartment or cab that indicates a condition affecting train movement. Cab signals are used with interlocking or block signals or without block signals.

Cars

Railroad cars.

Centralized Traffic Control (CTC)

A block system that uses block signal indications to authorize train movements.

Clearance Point

The location closest to a switch where it is safe for equipment, and a person riding the side of equipment unless prohibited, to pass equipment on an adjacent track.

Conductor

Crew member in charge of train or yard crew.

Control Operator

Employee assigned to operate a CTC or interlocking control machine or authorized to grant track permits.

Control Point

The location of absolute signals controlled by a control operator.

Controlled Siding

A siding within CTC or interlocking limits where a signal indication authorizes the siding's use.

Controlled Signal

An absolute signal controlled by a control operator.

Crew Member

Conductors, assistant conductors, brakemen, engineers, remote control operators, yard engine foremen, switchmen, and yard helpers.

Crossings at Grade

Crossings that intersect at the same level.

Crossover

A combination of two switches that connect two adjacent tracks, normally used for crossover movements.

CTC

See Centralized Traffic Control.

Current of Traffic

The movement of trains in one direction on a main track, as specified by the rules.

Direct Traffic Control (DTC)

A DTC block or a series of DTC blocks where the train dispatcher authorizes track occupancy.

Distant Signal

A fixed signal outside a block system that governs the approach to a block signal, interlocking signal, or switch point indicator. A distant signal does not indicate conditions that affect track use between the distant signal and block or interlocking signals or between the distant signal and switch point indicator. A distant signal is identified by a D.

Double Track

Two main tracks where the current of traffic on one track is in a specified direction and in the opposite direction on the other.

Dual Control Switch

A power-operated switch, moveable point frog, or derail that can also be operated by hand.

DTC

See Direct Traffic Control.

DTC Block

A length of main track specified by name. DTC block name and limits are identified by wayside signs reading, Begin (name) Block and End (name) Block and by mile post location in the timetable.

Electric Switch Lock

An electrically controlled lock that restricts the use of a hand-operated switch or derail.

Electronic Device

An electronic or electrical device used to conduct oral, written, or visual communication; place or receive a telephone call; send or read an electronic mail message or text message; look at pictures; read a book or other written material; play a game; navigate the Internet; navigate the physical world; play, view, or listen to a video; play, view or listen to a television broadcast; play or listen to music; execute a computational function; or, perform any other function that is not necessary for the health or safety of the person and that entails the risk of distracting the employee or another employee from a safety related task.

Engine

A unit propelled by any form of energy or more than one of these units operated from a single control. Engines are used in train or yard service. Rules that apply to engines also apply to cab control cars.

Engineer

Also includes student engineers, firemen, hostlers, and remote control operators.

Equipment

Railroad equipment.

Equipment Fouling a Track

The end of rolling equipment or on-track maintenance of way equipment left between the clearance point and the switch points leading to the track on which the equipment is standing.

Fixed Signal

A signal that is fixed to a location permanently and that indicates a condition affecting train movement.

Flagman

Any employee providing flag protection as outlined in Rule 6.19 (Flag Protection) and for other purposes as outlined in the rules.

Foreman

Employee in charge of work.

Gravity Switch

A switching process using gravity to reposition cars on the opposite end of a locomotive, without using locomotive to start movement of cars. See Rule 7.7.1.

Humping Cars

Allowing cars to roll under their own momentum during cresting operations at a hump yard.

Interlocking

Signal appliances that are interconnected so that each of their movements follows the other in a proper sequence. Interlockings may be operated manually or automatically.

Interlocking Limits

The tracks between outer opposing absolute signals of an interlocking.

Interlocking Signals

The fixed signals of an interlocking that govern trains using interlocking limits.

Jump Frog

A main track frog designed for use with low traffic turnouts. The main track side is made up of an unbroken rail and the turnout side carries the wheel over the main track rail by supporting the flange of the wheel.

Kicking Cars

To shove a car a short distance and uncouple it in motion.

Main Track

A track extending through yards and between stations that must not be occupied without authority or protection.

Men or Equipment

A term referring to Engineering Department employees and their related equipment.

Multiple Main Tracks

Two or more main tracks that are used according to the timetable.

Other Controlled Track (OCT):

A segment of track (not main track or siding) between Control Points that is governed by GCOR Chapter 10 (CTC) rules. Locations of OCT are listed in the timetable.

Pilot

An employee assigned to a train to assist an engineer or conductor who is unfamiliar with the rules or the portion of railroad the train will operate on.

Proceed Indication

Any block signal indication that allows a train to proceed without stopping.

Radio

As used in these rules it also applies to wireless communication devices when used in railroad operations.

Radio Blocking

A method to establish an absolute block for a following train in non-sigaled territory by direct communication with a preceding train.

Radio Speed Restriction

A speed restriction received from the train dispatcher while enroute.

Railroad Operating Employee

An individual who is engaged in or connected with the movement of a train including a hostler, a train employee providing commuter or inter-city rail passenger transportation, or is subject to hours of service governing trains service employees.

RCO

See Remote Control Operator

RCZ

See Remote Control Zone

Remote Control Operator (RCO)

An employee who may operate an engine with or without cars by means of a remote control transmitter.

Remote Control Transmitter

A device that gives the remote control operator control of a remote control engine.

Remote Control Zone (RCZ)

A portion of track(s) within definite limits designated in the timetable special instructions.

Restricted Limits

A portion of main track designated by restricted limits signs and timetable special instructions or a track bulletin.

Reverse Movement

A movement opposite the authorized direction.

Siding

A track connected to the main track and used for meeting or passing trains. Location of sidings are shown in the timetable.

Signal Aspect

The appearance of a fixed or cab signal.

Signal Indication

The action required by the signal aspect.

Single Track

A main track where trains are operated in both directions.

Special Instructions

Instructions contained in the timetable or other publication.

Spring Switch

A switch with a spring mechanism that returns the switch points to the original position after they are trailed through.

Spur Track

A track connected to another track at only one end, also referred to as a stub track.

Station

A place designated by name in the timetable station column.

Stowed

When required by rule 2.21, electronic devices including cell phones, laptops, cameras, DVD's, etc., must be turned off and placed out of sight in the employee's grip, luggage, back pack, etc. Electronic devices placed in pockets or device holsters are not considered as being stowed.

Switch Point Indicator

A light type indicator used during movement over certain switches to show that switch points fit properly.

Switch Providing Direct Access

A switch that if used by rolling equipment could permit the rolling equipment to enter the track and couple to equipment.

Timetable

A publication with instructions on train, engine, or equipment movement. It also contains other essential information.

Track Bulletin

A notice of conditions affecting train movement. It may also authorize movement against the current of traffic where Rule 9.14 (Movement with the Current of Traffic) is in effect.

Track Occupancy Indicator

An indicator that tells whether a length of track is occupied or not.

Trackside Warning Detector

A device that indicates conditions such as overheated journals, dragging equipment, excess dimensions, shifted loads, high water, or slides.

Track Warrant Control (TWC)

A method to authorize train movements or protect men or machines on a main track within specified limits in a territory designated by the timetable.

Train

One or more engines coupled, with or without cars, displaying a marker, and authorized to operate on a main track. A term that when used in connection with speed restrictions, flag protection, and the observance of all signals and signal rules also applies to engines.

Train Coordination

Working limits established by a roadway worker through the use of a train's authority on a main track or other track where specific authority is required from a control operator or train dispatcher.

Train Dispatcher

Employee assigned to operate a CTC or interlocking machine, transmit or deliver orders affecting train movements, and supervise train movements and any employees connected with that movement, including control operators.

Train ID

Trains will be identified by initials and engine number, adding the direction when required. When an engine consists of more than one unit or when two or more engines are coupled, the number of one unit only will be illuminated as the identifying number. The identifying number will be the number of the lead unit, unless changing direction during a trip or tour of duty when that unit is no longer the lead unit.

TWC

See Track Warrant Control.

Variable Switch

A switch identified by a V or a bowl painted yellow. When trailed through, the switch points remain lined in the position they were forced.

Whistle Quiet Zone

A designated portion of track, that includes road crossing(s) at grade where whistle signal (7) is not regularly sounded.

Working Limits

A segment of track within definite boundaries on which movements may be made only as permitted by the employee in charge. Boundaries may be established using mile posts, station signs, timetable locations, or clearly identifiable points.

Yard

A system of tracks, other than main tracks and sidings, used for making up trains, storing cars, and other purposes.

Yard Access Crossing

A grade crossing that is located within the physical confines of a railroad yard and is either:

- Open to unrestricted public access;
- or
- Open to persons other than railroad employees going about their normal duties, e.g., business guests or family members.

Yard Limits

A portion of main track designated by yard limit signs and timetable special instructions or a track bulletin.

Rule Updated Date

May 2, 2016

System Special Instructions

Effective Date: May 2, 2016

[^Top](#)

Union Pacific Rules

Train Dispatcher Rules

20.0: GENERAL DUTIES OF THE TRAIN DISPATCHER

- [20.1: Supervision](#)
- [20.2: Duties of Train Dispatchers](#)
- [20.3: Records Kept](#)
- [20.4: Train Priority](#)
- [20.5: Knowledge of Territory](#)
- [20.5.1: Knowledge of Adjoining Territories](#)
- [20.6: Transfer](#)
- [20.7: Proper Terms](#)
- [20.8: Requirements For Granting Authority](#)
- [20.8.1: Requirements For Granting and Releasing Authority](#)
- [20.8.2: Confirmation of Limits Before Granting Authority](#)
- [20.8.3: Hy-Rail Motor Patrol \(BRONCO\) Instructions](#)
- [20.8.4: Remote Authority Instructions](#)
- [20.9: Relaying Through Another Qualified Employee](#)
- [20.10: Communications](#)
- [20.11: Reports of Trespassers or Suspicious Activity](#)
- [20.11.1: Reports of Emergency Responders on Unattended Equipment](#)
- [20.12: Accidents, Injuries and Defects](#)
- [20.13: Care for Injured](#)
- [20.14: Statements](#)
- [20.15: Rules Availability and Use](#)
- [20.16: General Orders](#)
- [20.17: Irregularities](#)
- [20.18: Hours of Service Law](#)
- [20.19: Unauthorized Persons](#)
- [20.20: Operation or Repair of Appliances](#)
- [20.21: Fire](#)
- [20.22: Handling Dimensional / Excessive Dimension Equipment](#)
- [20.22.1: Close Clearance](#)
- [20.22.2: Protection of Dimensional / Excessive Dimension Equipment Staged or Setout Online](#)
- [20.22.3: Swing In and Swing Out](#)
- [20.23: Reporting Engine Defects](#)
- [20.24: Emergency Calls and Critical Alarms](#)
- [20.24.1: Passenger Train Emergency](#)

- [20.24.2: Controlled Track Occupied without Authority](#)
- [20.25: Protecting Unforeseen Restrictions](#)
- [20.25.1: Overriding PTT Protection Using Approach Hold Release](#)
- [20.26: Statement of Numbers in Mandatory Directives](#)
- [20.27: Games, Reading, and Electronic Devices](#)
- [20.28: Handling Key Trains](#)

20.1: Supervision

Rule Ref: GCOR 1.45

Train dispatchers report to and receive instructions from the Corridor Director/Manager and/or proper authority.

Control operators are supervised by the train dispatcher in matters concerning train movement.

Rule Updated Date

August 1, 2008

[^Top](#)

20.2: Duties of Train Dispatchers

Rule Ref: GCOR 1.44

Train dispatcher's responsibilities include:

- Supervising the movement of trains.
- Using proper protection and authorities for employees as prescribed by the rules.
- Complying with the rules and, when observed, requiring that other train dispatchers or control operators do the same.
- Cooperating with field personnel conducting efficiency tests by not divulging any information that would interfere with, or affect the outcome of, the tests.
- Communicating with supervisors regarding conditions that affect the SAFE AND EXPEDIENT movement of trains.

Do not issue instructions that are in conflict with the rules. Train dispatchers must be aware that, because of their authority, employees might follow the dispatcher's instructions, even if rules might be violated.

Rule Updated Date

February 29, 2016

[^Top](#)

20.3: Records Kept

All written records must be kept in a neat and legible manner on a timely basis. All computerized records must be kept up-to-date and accurate. These records may be produced in a court of law. Accuracy is critical.

Rule Updated Date

August 1, 2008

[^Top](#)

20.4: Train Priority

Train dispatchers must be familiar with priorities, speed, and routing information of trains approaching their territory, or that are operating within their territory. Whenever possible, ensure priority trains are given preference and that no train is delayed unnecessarily.

Rule Updated Date

August 1, 2008

[^Top](#)

20.5: Knowledge of Territory

Train dispatchers must:

- Be familiar with characteristics that affect safe and efficient train operation, (e.g., type of operating territory, geographic, weather, local restrictions).
- Constantly be alert to, and inquire about, all information that affects operation of territories supervised.
- Plan as far in advance as practicable taking into consideration details which may affect train operations.
- Communicate with train dispatchers, terminal train dispatchers, supervisors of train operations and control operators of adjoining territories, giving particular attention to the movement and protection of trains and employees between territories.

Rule Updated Date

December 28, 2015

[^Top](#)

20.5.1: Knowledge of Adjoining Territories

Knowledge of territory must extend beyond the limits supervised by the train dispatcher for safe and efficient operation as well as proper application of rules.

Train dispatchers must:

- Inform other railroads and terminals of train movements that affect them.
- Not issue Track Warrants, Track Bulletins, instructions, or take any actions that may affect another train dispatcher's territory until a mutual understanding is reached between the dispatchers.

- Not remove any blocking device applied to signals, switches or track placed by an adjoining dispatcher until a mutual understanding is reached between the dispatchers.

Train dispatchers, if allowed by software, may issue Track and Time to and including the next control point in the adjoining train dispatcher's territory after reaching an understanding with that train dispatcher.

Rule Updated Date

August 1, 2008

[^Top](#)

20.6: Transfer

A transfer must be made to relieving train dispatcher to include the following, if applicable:

- Track Bulletins
- Absolute Blocks in effect
- Trains operating with PTC failures
- Unforeseen Speed Restrictions
- Pertinent instructions and information
- All active authorities

Relieving train dispatcher must review all required items listed on transfer and General Orders, Train Dispatcher and Control Operator Bulletins and Office Notices.

Whenever possible, a verbal exchange of information must be made between the two dispatchers, including the fact they have both recorded their Hours of Service.

The relieved train dispatcher must log off the train dispatching system and the relieving train dispatcher must log on to the train dispatching system before transfer is considered complete.

Note: Regional train management may require the use of a standardized document to ensure consistency and a comprehensive transfer.

Rule Updated Date

December 28, 2015

[^Top](#)

20.7: Proper Terms

Train dispatchers must do the following and require the same from others they communicate with:

- Use terms that are clear and not in conflict with the rules.
- Use proper instructions instead of rule numbers, except as otherwise provided in the rules.
- Use exact words when quoting a rule.

- Use only abbreviations authorized by the GCOR Glossary.

Rule Updated Date

August 1, 2008

[^Top](#)

20.8: Requirements For Granting Authority

When transmitting, or accepting release of, authorities; or when transmitting any other mandatory directive or instruction in the CAD system, the train dispatcher or control operator must directly observe the screen display to ensure the employee's repeat is correct.

When transmitting authority, mandatory directive, or instruction; or when confirming the limits of authority that includes a control point, state the location as either "CP" or "Control Point," followed by the alphanumeric designation (e.g., "CP A010"). When confirming the limits of authority that include a milepost, state the location as either "MP" or "Milepost."

Rule Updated Date

June 25, 2015

[^Top](#)

20.8.1: Requirements For Granting and Releasing Authority

The specified format must be used to grant authority.

When issuing verbal or written authorities train dispatcher must:

- Advise employee of any conditions or restrictions before issuing authority.
- Ensure instructions can be understood and that they are not in conflict with general orders, special instructions, or operating rules.
- When verbally transmitting a mandatory directive, the train dispatcher will receive the employee's occupation (ex. conductor, engineer, foreman, maintainer), name and location. It is only necessary to determine the employee's occupation for their first authority issuance on that dispatcher's shift.
- Transmit authority with the precise limits and conditions that have been established in the dispatching system. The train dispatcher will not transmit the summary.
- Listen carefully while directly observing screen display during repeat of authority to ensure it is correct.
- Use only the "OK Time" on the CAD screen display.
- Guard against hazardous conditions and not create unsafe combinations.
- Void any written authorities that are not understood and reissue using a new number so they are understood by all concerned.
- Issue verbal authorities clearly, concisely and at a speed that can be received easily.

Train dispatchers must exercise caution to ensure that the employees do not misunderstand a discussion about work to be

performed as being authority granted.

- When authorities are released verbally, the train dispatcher must:
 - 1 If not already stated, by field employee, request the authority number to be released.
 - 2 Have the authority displayed in the dispatching system and then advise the employee to continue with release.
 - 3 Listen carefully while directly observing the screen display during the release to ensure the correct authority is being released.
 - 4 Train dispatchers' repeat of release must include, at a minimum, authority number, release time, and name of employee releasing.

Release verbal authorities clearly, concisely, and at a speed that can be received easily.

Rule Updated Date

June 25, 2016

[^Top](#)

20.8.2: Confirmation of Limits Before Granting Authority

Before verbally issuing authority, other than to a train, the train dispatcher or control operator must confirm the limits. Only the limits of authority must be confirmed, conditions of authority or other information should not be discussed at this time.

Confirmation of limits applies to Track and Time, Track Permits, Foul Time, and Track Warrants.

A. Issuing Authority as Requested:

1. Create the authority in the dispatching system and verify blocking is in place.
2. Using proper terminology, state the limits of the authority as they appear on the display screen.
3. Require the employee to acknowledge the confirmation of limits; for example, "That is correct, dispatcher," "Ready to copy," or "I understand you are giving me <limits>."
4. Issue the authority with no changes in the confirmed limits.

B. Issuing Authority When Requested Limits Are Unavailable or Specific Limits Are Not Requested:

1. If unable to issue the authority as requested, state that those limits are not available. State the limits that can be granted and ask the employee if those limits are useable. If the employee has not requested specific limits, proceed directly to Step 2.
2. Create the authority in the dispatching system and verify blocking is in place.
3. Using proper terminology, state the limits of the authority as they appear on the display screen.
4. Require the employee to repeat the limits.
5. Once the limits are repeated correctly, the authority may be transmitted with no changes in the confirmed limits.

Rule Updated Date

May 7, 2015

[^Top](#)

20.8.3: Hy-Rail Motor Patrol (BRONCO) Instructions

Subdivisions authorized to operate Hy-Rail Motor Patrols (HMP) under storm protection are identified in the Area Timetable or Subdivision General Order. The Manager of Track Maintenance or his designate will notify the train dispatcher when train escort using HMP under storm protection is required.

When authorizing HMP, not on track and time, to operate during storm conditions, the train dispatcher must:

1. Issue a storm bulletin using Track Bulletin format:

"STORM ORDER IS IN EFFECT BETWEEN (location) AND (location) SPEED WHERE VIEW OBSCURED 20 MPH UNLESS A GREATER SPEED IS AUTHORIZED BY THE HY-RAIL MOTOR PATROL OPERATOR."

2. Contact both the HMP Operator and train crew to ascertain a complete understanding of escort limits has been reached.

3. Authorize each new train escort movement with an HMP separately.

If the train and HMP operator report that they are unable to maintain communication with each other, issue joint Track and Time to both.

Rule Updated Date

August 1, 2008

[^Top](#)

20.8.4: Remote Authority Instructions

When utilizing the CAD Remote Authority System for the issuance or release of on-track authorities:

- The requirements of Rule 20.8.1 for releasing authority do not apply
- The requirements of Rule 20.8.2 pertaining to the confirmation of limits do not apply

If the requested authority will be behind a train or trains, the dispatcher must know where the remote user will foul the track and verbally verify that all trains listed on the authority are beyond this location. This requirement does not apply after the issuance of the first authority if the same train(s) are listed on subsequent contiguous authorities addressed to the same remote user.

If the remote user informs the dispatcher electronically that their work will shunt the signal circuits within a control point, or that dual control switches will be taken in hand operation, this satisfies the requirement of Rule 24.2.7 Shunting Signal Circuits to make this determination; however, the dispatcher must still provide protection.

Rule Updated Date

June 25, 2015

[^Top](#)

20.9: Relaying Through Another Qualified Employee

When relaying authority through another qualified employee:

1. Give authority to third party:
 - a. Transmit required authority to third party.
 - b. Require third party to repeat.
 - c. If correct, respond with "(Third Party ID), that is correct for relay."
2. Third party gives authority to employee requiring the authority:
 - a. Instruct the third party to transmit the authority to receiving employee.
 - b. Require third party to verify to train dispatcher that receiving employee has repeated correctly.
3. Give OK time and dispatcher's initials to third party:
 - a. Give OK time and dispatcher's initials to relaying employee.
 - b. Instruct third party to give OK time and dispatcher's initials to receiving employee.
 - c. Require that relaying employee advise train dispatcher when receiving employee has repeated OK time and dispatcher's initials.

Rule Updated Date

August 1, 2008

[^Top](#)

20.10: Communications

The train dispatcher's communication console must be used for company business.

The unrecorded "side phone" must not be used to transmit or release authorities or issue instructions that affect the movement of trains, except in the event of communication failure.

Rule Updated Date

August 1, 2008

[^Top](#)

20.11: Reports of Trespassers or Suspicious Activity

When a report is received of suspicious activity, trespassers or livestock along the right of way, unauthorized persons on equipment, obtain as much detailed information as possible. This should include a description, vehicles in the area, license plate numbers, or any other information that may help in a possible investigation.

1. Protect the area and notify affected trains
2. Notify Response Management Control Center (RMCC) and Corridor Manager

Rule Updated Date

February 29, 2016

[^Top](#)

20.11.1: Reports of Emergency Responders on Unattended Equipment

Rule Ref: GCOR 1.22

If notified that any emergency responder has been on, under, or between unattended train or equipment, the dispatcher will notify their Corridor Director/Manager. The Corridor Director/Manager will notify field management, who will arrange that a qualified employee remain on the scene until emergency responders have left or released the scene. The employee will then inspect the train or equipment for securement and inform the dispatcher of the inspection results before departing the location.

Rule Updated Date

April 1, 2015

[^Top](#)

20.12: Accidents, Injuries and Defects

Rule Ref: GCOR 1.1.3

When a report is received from the field of accidents, injuries, or track or mechanical defects, the train dispatcher must ensure that the necessary safeguards are provided as soon as possible. In case of doubt as to whether operation of train(s) is safe, the train dispatcher must require train(s) to stop.

Rule Updated Date

July 1, 2014

[^Top](#)

20.13: Care for Injured

Rule Ref: GCOR 1.2.1

When advised of an injury, ascertain if emergency services are required.

When responding to report of injuries:

1. Obtain exact location including railroad mile post and public access information.
2. Protect the location.
3. Notify Response Management Control Center (RMCC).
4. Give this priority over other duties.

Rule Updated Date

August 1, 2008

[^Top](#)

20.14: Statements**Rule Ref: GCOR 1.2.6**

Train dispatcher must:

- Require identification before divulging information that relates to the operation of the railroad.
- Only release information to employees of the railroad or others that are authorized to receive the information.

Rule Updated Date

August 1, 2008

[^Top](#)

20.15: Rules Availability and Use**Rule Ref: GCOR 1.3.1**

Train dispatchers must have a current copy of the following available for reference while on duty:

- General Code of Operating Rules (GCOR)
- Rules Governing Train Dispatchers and Control Operators (RTDCO)
- System Special Instructions
- Timetables
- General Orders
- Safety Rules
- Air Brake and Train Handling Rules
- Form 8620-Instructions for Handling Hazardous Materials

Employees may utilize electronic media with the most recent approved versions in lieu of books. Employees must be able to access the electronic versions in a timely manner.

When any rule or instruction for train dispatchers is supplemented, modified, or canceled, the Vice-President Harriman Dispatching Center (HDC) will issue a Train Dispatcher and Control Operator Bulletin.

Train Dispatcher and Control Operator Bulletins do not supersede General Orders, Special Instructions or the General Code of Operating Rules.

Office Notices may be issued to cover territory or office specific instructions, which do not supplement, modify or cancel a GCOR rule or RTDCO rule.

Rule Updated Date

August 1, 2008

[^Top](#)

20.16: General Orders

Rule Ref: GCOR 1.3.2

Train dispatchers must check new General Orders for items duplicated in track bulletins and must revise track bulletins to delete such items.

Rule Updated Date

August 1, 2008

[^Top](#)

20.17: Irregularities

Rule Ref: GCOR 1.4

Immediately report to the Corridor Director/Manager and, if necessary, proper authority any irregularities that pertain to:

- Train movement.
- Operation of signals or related apparatus.
- Handling or execution of track bulletins or track warrants.
- Compliance with or apparent lack of understanding of the rules.

Rule Updated Date

August 1, 2008

[^Top](#)

20.18: Hours of Service Law

Rule Ref: GCOR 1.17

A. Hours of Service Involving Trains

Plan operations to avoid violations and, if possible, prevent crews from tying up short of terminal because of hours of service. Report all violations or possible violations to the Corridor Director/Manager or proper authority.

B. Hours of Service Record for Train Dispatchers

Train dispatcher must maintain their own hours of service record with the following:

- Place (e.g., HDC Omaha, Spring, etc.), date, and name of employee.
- Occupation of employee (e.g., train dispatcher or control operator).
- Total number of consecutive hours and minutes off duty before going on duty. When off duty over 99 hours and 59 minutes, indicate 99+. If less than 99 hours and 59 minutes, the record must reflect actual hours and minutes.
- Date and time on duty.
- Date and time off duty.
- Total time of service.

Mandatory classes, meetings, drug tests, etc. required before or after shift are considered as commingled service and must be used in calculating consecutive hours off duty. The record should also include an explanation of commingled service.

Note: Time on or off duty must be recorded precisely. Transfers must be included in the time on duty. Train dispatchers must not work more than 9 hours in any 24-hour period. Report all violations to the Corridor Director/Manager or proper authority.

Rule Updated Date

April 1, 2015

[^Top](#)

20.19: Unauthorized Persons

Rule Ref: GCOR 1.22

Unauthorized persons will not be allowed in the dispatcher's cubicle.

Rule Updated Date

August 1, 2008

[^Top](#)

20.20: Operation or Repair of Appliances

Rule Ref: GCOR 1.23

The train dispatcher must not make or allow any unauthorized appliance repairs, alterations, or additions. Appliances must be operated only by those authorized to do so.

Rule Updated Date

August 1, 2008

[^Top](#)

20.21: Fire

Rule Ref: GCOR 1.28

When report of fire is received:

- 1.

Protect the area if the fire poses any threat to train operations or if train operations pose any threat to fire fighting personnel.

2. If a bridge or tunnel is involved, take additional precautions to prevent train movement until advised by employee in charge that movement may be resumed.
3. Report fire to Response Management Control Center (RMCC).
4. If reported as a right of way fire (not a tie fire), instruct the train that last traversed the area to stop. This train must be inspected by Mechanical Department personnel and not allowed to proceed until released by appropriate supervisor. If train is no longer on the dispatcher's territory, notify Corridor Director/Manager who will arrange to have the train inspected. Note: If the last train through the area was a passenger train, instruct that train to stop and crew will inspect the train before it is allowed to proceed.

Rule Updated Date

September 1, 2014

[^Top](#)

20.22: Handling Dimensional / Excessive Dimension Equipment

Rule Ref: GCOR 1.36

A. Definitions

Absolute Meet / Pass:

Fixed locations where track center dimensions permit safe clearance between meeting of

Dimensional Equipment:

Any car or load with a width of 11 feet 0 inches to 12 feet 0 inches inclusive.

Excessive Dimension Equipment:

Any car or load with a width of more than 12 feet 0 inches.

Overhang:

Loads or equipment that extends past the end of a car.

Swing Out:

Increase in dimension caused by overhang extending outward when moving on curved track

Swing In:

Increase in dimension caused by car or equipment extending inward when moving on curved

B. Safe Movement

Excessive dimension equipment must be protected by track bulletin using the following format:

"EXCESSIVE DIMENSION EQUIPMENT (Car number) ON TRAIN (trainID) (#) FEET (#) INCHES WIDE ENROUTE (station) TO (station). BE GOVERNED BY RULE 1.36."

- Include any specific restrictions or special handling instructions listed on clearance notice.
- Provide advance notice to train crews of absolute meet/pass locations.
- Provide notice to holders of on track authority on adjacent tracks when dimension is greater than 13 feet.
- Use appropriate CAD functions to protect areas where track centers do not provide sufficient clearance to meet or pass safely.
- In California and Nevada loads in excess of 10' 10" must be protected by track bulletin to satisfy Public Utilities Commission requirements.
- Record width in CAC train profile.

C. Meet /Pass Restrictions

Track Center dimensions determine meet / pass restrictions. Use authorized applications to determine clearance. Meet/pass restrictions are:

- 0 to 5 inches of clearance: No Meet/Pass.
- 5 to 8 inches of clearance: 10 MPH, one train must be stopped.
- 8 to 12 inches of clearance: 25 MPH, one train must be stopped.
- Over 12 inches: No Restrictions.

Rule Updated Date

November 30, 2015

[^Top](#)

20.22.1: Close Clearance

Locations where track centers are 12 feet 9 inches or less must be protected by track bulletin. Issue bulletin using the following format:

BETWEEN (MILEPOST) AND (MILEPOST) THERE IS CLOSE CLEARANCE BETWEEN (NAME) AND (NAME) TRACKS. TRAINS HANDLING DIMENSIONAL LOADS MUST NOT EXCEED 25 MPH BETWEEN THESE LOCATIONS.

Rule Updated Date

November 30, 2015

[^Top](#)

20.22.2: Protection of Dimensional / Excessive Dimension Equipment Staged or Setout Online

Dimensional or excessive dimension set out or staged online must be protected by track bulletin. Dispatcher must ascertain from crew if dimensional or excessive dimension equipment is in consist. Issue bulletin using the following format:

(DIMENSIONAL or EXCESSIVE DIMENSION) EQUIPMENT ON (NAME) TRACK AT (LOCATION) (#) FEET (#) INCHES WIDE.

Rule Updated Date

November 30, 2015

[^Top](#)

20.22.3: Swing In and Swing Out

Issue track bulletin to protect any shipment with swing in or swing out dimension if dimension exceeds 12 feet 0 inches in width at locations with adjacent tracks on the subdivision.

Rule Updated Date

November 30, 2015

[^Top](#)

20.23: Reporting Engine Defects

Reference: GCOR 1.40

After receiving report of a locomotive malfunction, notify the locomotive help desk, reporting the following:

- Dispatcher position number and territory dispatched
- Train symbol and lead locomotive unit identification number
- Locomotive INITIAL AND NUMBER in trouble (if different from lead unit)
- Location of train and radio tower on which the crew can be contacted
- Problem that the locomotive is experiencing

Rule Updated Date

August 1, 2008

[^Top](#)

20.24: Emergency Calls and Critical Alarms

Rule Ref: GCOR 2.10

When responding to emergency calls and critical alarms, train dispatcher must:

- Give these priority over all other duties.
- Respond to unattended workstations. Notify the other dispatcher when he/she returns.

Emergency Calls:

Respond immediately. Identify that radio is being answered in response to an emergency call:

"UP DISPATCHER (unique designation) RESPONDING TO EMERGENCY CALL ON (base radio location) RADIO, OVER."

- Respond a minimum of 3 times before disconnecting from an unanswered emergency call.
- Determine emergency services and support personnel needed.
- Ascertain as much information from initial contact as practical:

1. If a grade crossing / pedestrian accident:

- a. Crossing name, mile post, or other identifiable location
- b. Side of train that the vehicle ended up on
- c. Whether ambulance, or other emergency response may be needed for crew or passengers. **If not known, assume an ambulance is needed.**

2. All other emergencies:

- a. Emergency response equipment needed
 - b. Other tracks blocked
 - c. Other railroads or highways blocked
 - d. Other threats which may exist.
- Obtain exact location of incident including railroad mile post and public access information.
 - Make notification to Response Management Communications Center (RMCC) using the speed dial labeled RMCC 911 on your AVTEC or dial 8-544-7622 (company line) or 1 888-877-7267. After RMCC has been notified, inform your Corridor Director/Manager of all known information. Protect the location, if necessary.
 - When necessary, secure the area of the emergency from other train movements that could cause unnecessary interference and danger.
 - Monitor radio and render all possible assistance.
 - Gather information, determining if relief crew is needed.
 - Enter necessary information in Unusual Occurrences, when required.

The Corridor Director/Manager, RMCC and Service Interruption will make all subsequent notifications.

Rule Updated Date

December 20, 2010

[^Top](#)

20.24.1: Passenger Train Emergency

For passenger train emergency, regulations define an emergency as:

- A derailment
- A fatality at a grade crossing

- A passenger or employee fatality, or a serious illness or injury to one or more passengers or crewmembers requiring admission to a hospital
- An evacuation of a passenger train
- A security situation (e.g., a bomb threat)

When notified of a passenger train emergency, the train dispatcher must:

- Protect the affected area from other train movements, including adjacent rail modes of transportation, that could cause unnecessary danger to passengers, crew, and emergency responders
- Notify RMCC with all known details
- Notify Corridor Director/Manager with all known details
- Monitor the situation and provide assistance, as required

Rule Updated Date

August 1, 2008

[^Top](#)

20.24.2: Controlled Track Occupied without Authority

Ref: GCOR 1.4 and 9.5

When a train or employee occupies a controlled track without authority, or authority is released/voided in error leaving train or employee unprotected, the dispatcher must immediately:

Trains:

- Instruct the train to stop and remain stopped.
- Warn any conflicting movements or employees holding authority in the affected limits.
- Protect the location.

Train must not be allowed to proceed until released by field management officer, Corridor Director/Manager or proper supervisor.

Employees:

- Instruct the employee to immediately clear the track if possible.
- Warn any conflicting movements or employees holding authority in the affected limits.
- Protect the location.

If the authority was released or voided in error by the train dispatcher, the requirement to stop the train or have the employee clear the track does not apply.

Notify Corridor Director/Manager of incident.

Rule Updated Date

January 28, 2014

System Special Instructions

Effective Date: May 1, 2014

[^Top](#)

20.25: Protecting Unforeseen Restrictions

Rule Ref: GCOR 6.11

Whenever possible, create a Protective Track Tag (PTT) or Track Restriction Protection (TRP) to protect an unforeseen restriction. Verify the correct placement of a PTT with the requesting field employee. When confirming the limits that include a control point, state the location as either "CP" or "Control Point," followed by the alphanumeric designation (e.g., "CP A010"). Before finalizing the process, repeat the information from the CAD screen to the employee. The train dispatcher must not relieve the employee of providing flag protection until protection has been properly placed to prevent movement into the affected area, and all affected trains within the protected limits have received the restriction.

Use the appropriate CAD function when transmitting a restriction. If verbally transmitted: when the restriction has been correctly repeated, give the OK time from the PTT or track warrant ORS screen and dispatcher's initials.

Rule Updated Date

May 18, 2015

[^Top](#)

20.25.1: Overriding PTT Protection Using Approach Hold Release

Rule Ref: GCOR 2.14

The Approach Hold Release function may only be used to clear a signal into a PTT when:

- The CAD system cannot determine which train the signal is requested for. The train dispatcher must verify the train has the restriction before requesting the signal.
- A Signal employee requests that the signal be cleared for testing purposes.

All other train symbols must be issued the restriction using the PTT function before allowing entry into the affected area.

Rule Updated Date

April 1, 2015

[^Top](#)

20.26: Statement of Numbers in Mandatory Directives

Rule Ref: GCOR 2.14.1

When transmitting a mandatory directive, the train dispatcher must state certain numbers in single digits. If further clarification is needed, the train dispatcher may also restate and/or spell numbers.

Numbers which must be stated in single digits:

- Authority number (when applicable)
- The engine number the mandatory directive is addressed to
- All numbers contained in the body of the mandatory directive

Numbers which do not have to be stated in single digits:

- Date
- Box number in a track authority
- The OK time

Rule Updated Date

November 13, 2014

[^Top](#)

20.27: Games, Reading, and Electronic Devices

Rule Ref: GCOR 2.21

Train dispatchers are prohibited from using a cellphone or other wireless communications device while on duty and located at the train dispatching workstation.

Rule Updated Date

October 21, 2011

[^Top](#)

20.28: Handling Key Trains

The purpose of this rule is to clarify the manner in which Key Trains are to be handled with regard to the use of 10 MPH sidings.

Train Dispatchers must plan the operation of their territory in advance in order to keep Key Trains on the main track at meeting points when practical. At locations where the siding speed is 10 MPH or less, a Key Train must hold the main track, except under the following conditions:

- When necessary to meet another opposing or passing Key Train at the location of a 10 MPH (or less) siding;
- When necessary to meet an opposing or passing passenger train other than a business car special; or,
- When authorized by a Dispatching Center Superintendent to place a Key Train in a 10 MPH (or less) siding.

When a Key Train is placed in a 10 MPH (or less) siding to meet an opposing or passing train(s), the train dispatcher must instruct the first train holding the main track to stop before passing any portion of the Key Train until the Key Train is stopped in the siding, and then to proceed at restricted speed passing the Key Train in the siding until it is known that the main track is

not fouled. If another employee is in a position to visually verify that the Key Train in the siding is not fouling the main track before the arrival of the first train to be met, or that will pass, the requirement to have the first train operate at restricted speed will not apply.

Rule Updated Date

May 18, 2015

[^Top](#)

[Union Pacific Rules](#)

[Train Dispatcher Rules](#)

21.0: SIGNALS AND THEIR USE

- [21.1: Track Bulletins Where GCOR Rule 5.4.4 in Effect](#)
- [21.2: Display of Red Flag](#)
- [21.3: Whistle Failure](#)
- [21.4: Headlight Failure](#)
- [21.5: Engine Identifying Number](#)
- [21.6: Protection of Occupied Outfit Cars](#)
- [21.7: Blue Signal Protection of Workmen](#)
- [21.8: Improperly Displayed Signals](#)
- [21.8.1: Improperly Displayed Block Signals](#)

21.1: Track Bulletins Where GCOR Rule 5.4.4 in Effect

Rule Ref: GCOR 5.4.4

Where Rule 5.4.4 (Authorize Protection by Yellow Flags) is in effect, requests for track protection using Form A should be referred to Corridor Director/Manager.

Exception: When restriction is less than 2 miles from a junction, terminal or another area, issue track bulletin to advise location of yellow flags.

Rule Updated Date

April 1, 2015

[^Top](#)

21.2: Display of Red Flag

Rule Ref: GCOR 5.4.7

A train dispatcher must not authorize a train to pass a red flag.

Note: MW rules require a red flag to be displayed on a stiff pole. Red cloth or other red objects on the ground and not displayed on a stiff pole are not to be considered as a red flag.

Rule Updated Date

April 1, 2015

[^Top](#)

21.3: Whistle Failure

Rule Ref: GCOR 5.8.3

Whistle failure must be reported to the locomotive help desk and Corridor Director/Manager as soon as possible.

Rule Updated Date

August 1, 2008

[^Top](#)

21.4: Headlight Failure

Rule Ref: GCOR 5.9.3

Headlight failure must be reported to the locomotive help desk and Corridor Director/Manager as soon as possible.

Rule Updated Date

August 1, 2008

[^Top](#)

21.5: Engine Identifying Number

All trains and engines will be identified by their initials and unit number when issuing/releasing authorities or mandatory directives. The identifying number will be the number of the lead unit.

Passenger trains may be identified by schedule number.

Rule Updated Date

May 23, 2016

[^Top](#)

21.6: Protection of Occupied Outfit Cars

Rule Ref: GCOR 5.12

The train dispatcher must apply blocking mechanism to prevent unauthorized movement into the protected area before informing employee that protection is provided for outfit cars.

When protecting outfit cars the train dispatcher must fill out the prescribed form and maintain a written record for 15 days.

A form can be found in TCS user group "DIR".

IN TCS Enter SW DUP FORM25 DIR

1. Type "FORM25 – (current date)" as message name.
2. Identify appropriate location in message description area and record protection provided.
3. When protection is released, form must be completed.

Rule Updated Date

August 1, 2008

[^Top](#)

21.7: Blue Signal Protection of Workmen

Rule Ref: GCOR 5.13

Train dispatcher must not provide blue signal protection on the main track except at locations specifically exempted by the Federal Railroad Administration.

When providing blue signal protection for other than a main track, the train dispatcher must line dual control switch(es) to prevent access to the track being protected and blocking mechanism applied. Inform the employee switches have been lined against movement onto the track and devices controlling the switches have been secured. Advise the employee when protection has been provided.

Maintain for 15 days a record of each notification that includes:

- Name and craft of the employee in charge of the workmen requesting protection
- Identification of track involved
- Date and time the employee in charge of workmen is notified that protection was provided
- Date, time, name, and craft of the employee in charge of workmen who authorized removal of the protection

Whenever possible, use the PTT option BF to record the required information.

Rule Updated Date

November 30, 2015

[^Top](#)

21.8: Improperly Displayed Signals

Rule Ref: GCOR 5.15,GCOR 9.4

Improperly displayed signal or the absence of a signal, flag, or sign must be reported to the Corridor Director/Manager and/or to proper employee.

When possible, verbally notify approaching trains of the condition.

Rule Updated Date

August 1, 2008

[^Top](#)

21.8.1: Improperly Displayed Block Signals

Rule Ref: GCOR 5.15

If any irregularities are detected in the operation of a block signal appliance, display controlled signals to their most restrictive indication and place track or location in manual mode until repairs are made.

This rule applies to any block signal aspect irregularity other than a proceed indication into an occupied block or block in which a switch is open. If a proceed indication into an occupied block is reported, refer to Rule 23.7.

Rule Updated Date

August 1, 2008

[^Top](#)

[Union Pacific Rules](#)

[Train Dispatcher Rules](#)

22.0: MOVEMENT OF TRAINS AND ENGINES

- [22.1: Initiating Movement](#)
- [22.2: Reverse Movement](#)
- [22.3: Movement of On-Track Equipment on Signal Indication](#)
- [22.3.1: Movement of On-Track Equipment on Signal Indication within Cab Signal Territory](#)
- [22.3.2: High-Speed Work Equipment](#)
- [22.4: Protection of Equipment Left on Main Track or Controlled Siding, or Train in TWC](#)
- [22.4.1: Employee Notification of Equipment Location](#)
- [22.4.2: Removing Protection for Standing Equipment](#)
- [22.4.3: Protection of Unattended Equipment/Train Left on Siding in Non-Signaled TWC Territory](#)
- [22.4.4: Track Breach Protection on Adjacent Track](#)
- [22.4.5: Key Train and Key Train Commodity Securement Requirements](#)
- [22.5: Precautions Against Unusual Conditions](#)
- [22.5.1: Reports of Vehicle On or Near the Track](#)
- [22.5.2: Track Removed From Service](#)
- [22.5.3: Tornado Instructions](#)
- [22.5.4: High Wind Instructions](#)
- [22.5.5: Heavy Rains and Flooding Conditions](#)
- [22.6: Protection Against Defects](#)
- [22.7: Emergency Stop or Severe Slack Action](#)
- [22.8: Receiving or Discharging Passengers](#)
- [22.9: Automatic Warning Devices](#)
- [22.9.1: Automatic Warning Devices Disabled](#)
- [22.10: Insufficient Clearance at Road Crossings](#)
- [22.11: Impaired Sight Distance or Missing/Damaged Crossbucks or Signs](#)

22.1: Initiating Movement

Rule Ref: GCOR 6.2

All trains are required to obtain a Track Warrant for Bulletins before initiating movement on main track.

Except: Switching or yard moves and trains that are operating on territories where Rule 5.4.4 is in effect, may determine from the train dispatcher or yardmaster if any track bulletins are in effect. If no track bulletins are in effect, advise that none are needed.

Rule Updated Date

April 1, 2015

[^Top](#)

22.2: Reverse Movement

Rule Ref: GCOR 6.4.1

Before granting permission for a reverse movement:

A. Application of this rule:

- In ABS TWC territory, paragraph "B" and "C" apply.
- In non-signaled TWC territory, only paragraph "C" will apply.
- Within CTC or manual interlocking limits, set the controlled signal providing access to the rear of train to Stop and apply blocking mechanism to prevent unauthorized movement into protected area if paragraph "B" or "C" have not been applied.
- In Rule 9.14 territory, (where Rule 9.15 is not in effect) set the controlled signal providing access to the rear of the train making reverse movement to Stop and apply blocking mechanism to prevent unauthorized movement into protected area if paragraph "B" has not been applied.

Permission for reverse movement in Rule 9.14 or 9.15 territory may only be given for a train to pass the block signal protecting the rear of the train. Any movement beyond the second signal to the rear is a movement against the current of traffic and must be protected by track bulletin or track permit.

B. Instruct first following train within the same limits to stop and remain stopped until advised reverse movement is completed. Do not grant any authority between train making reverse movement and first train stopped.

C. Issue joint authority when any of the following are in effect within the same limits behind the train making reverse movement:

- Track and Time in CTC territory
- Track Permit in Rule 9.15 territory
- "Work Between" in TWC territory

Rule Updated Date

April 1, 2014

System Special Instructions

Effective Date: May 1, 2014

[^Top](#)

22.3: Movement of On-Track Equipment on Signal Indication

While handling all self-propelled rail grinders, in-track welders and other equipment designated by the Chief Engineer to run on signal indication, the train dispatcher must provide protection against following train movements using one of the following methods:

- In CTC, auto routing and automatic clearing features must not be used to move on-track equipment. The track block feature in the dispatching system can be used or place the control points or locations in manual mode. All dual control switches over which the equipment will pass must be blocked.
- In TWC, issue a "Work Between" and do not issue with joint authority.

Rule Updated Date

April 1, 2014

System Special Instructions

Effective Date: May 1, 2014

[^Top](#)

22.3.1: Movement of On-Track Equipment on Signal Indication within Cab Signal Territory

On-track equipment, equipped with a working cab signal device, may operate on signal indication within cab signal territory. On-track equipment not equipped with a working cab signal device, will operate as follows:

- In CTC or Rule 9.15 ACS, CBS or ATC territory, all movement will be made on Track and Time or Track Permit authority.
- In Rule 9.14 ACS or ATS territory, all movement will be made with absolute block established in advance of the movement.

Rule Updated Date

August 1, 2008

[^Top](#)

22.3.2: High-Speed Work Equipment

On-track equipment authorized by the Chief Engineer to operate at a speed higher than the normal MW work equipment speed will be identified as "high speed work equipment." This equipment will be authorized to operate at up to maximum timetable speed (not exceeding 49 MPH) and will be exempted from, among other things, the requirement to be prepared to stop and protect all road crossings at grade. The train dispatcher must ensure that all unforeseen track restrictions, including those concerning automatic crossing device failures, are delivered to the employee in charge of the high speed work equipment.

Rule Updated Date

August 1, 2008

[^Top](#)

22.4: Protection of Equipment Left on Main Track or Controlled Siding, or Train in TWC

Rule Ref: GCOR 6.20

Train dispatcher or control operator must provide protection before authorizing a crew of a train to leave equipment on the main track or controlled siding (outside of yard limits) without flag protection.

NOTE: Unattended locomotive(s), not coupled into other equipment, must not be left on the main track. (ABTH Rule 32.2.1)

Protection must be provided in the following manner:

A. In CTC, manual interlocking limits, or track permit territory, apply protective track tag or track tag with block. Example: "EQUIPMENT ON (track) BETWEEN (mile post/location) AND (mile post/location)."

B. In current of traffic, a track bulletin (see example) must be issued immediately to all trains which may operate against the current of traffic on the affected track.

C. In TWC territory (non-signaled and ABS), trains or equipment tied up or left on main track must be protected by track warrant. Use the following process when protecting a train or equipment left on main track:

1. Issue a track warrant to "Dispatcher", with a "Work Between". This warrant should be made joint.
2. The limits of "Dispatcher" warrant must be as short as possible, protecting both ends of equipment left on main track.
3. Before requesting and/or accepting the release of the train's warrant, verify that the train is stopped within the limits of the "dispatcher" warrant. Advise crew that train or equipment is protected and then have the train crew release their track warrant.

In addition, in non-signaled TWC territory, a track bulletin must be issued and given immediately to all trains approaching the location of the train or equipment left on main track. (see example)

Example :

"(Name) TRACK BLOCKED WITH EQUIPMENT (or Train) BETWEEN (location/milepost) AND (location/milepost). BE GOVERNED BY GCOR RULE 6.20."

Rule Updated Date

June 25, 2016

[^Top](#)

22.4.1: Employee Notification of Equipment Location

Before granting authority or issuing instructions to enter protected limits where train or equipment has been left standing, the train dispatcher must notify the employee of the location of the train or equipment. If the train or equipment is protected by a portable derail, the train dispatcher must notify the employee of the location of the portable derail.

Rule Updated Date

October 23, 2009

[^Top](#)

22.4.2: Removing Protection for Standing Equipment

The train dispatcher must confirm that the track is clear of standing equipment and portable derails removed before removing protection.

Do not use a Box 1 on a train's Track Warrant to VOID the Track Warrant that was issued to protect the standing equipment.

Rule Updated Date

October 23, 2009

[^Top](#)

22.4.3: Protection of Unattended Equipment/Train Left on Siding in Non-Signaled TWC Territory

When trains or equipment are left unattended on sidings in non signaled TWC territory, the Train Dispatcher must issue Instructions on all subsequent track warrants which grant authority past the occupied siding until another train crew or employee has advised that all switches are in normal position. These instructions will state "Comply with procedure PS at (Station Name)."

After being advised that the train or employee has passed the location of the unattended equipment, the train dispatcher may discontinue the use of the PS procedure.

Rule Updated Date

January 19, 2015

[^Top](#)

22.4.4: Track Breach Protection on Adjacent Track

Rule Ref: SSI Item 12

Note: Do not confuse Track Breach Protection with any type of authority to occupy a main track or controlled siding. If authority is required to perform work, issue the appropriate authority on the track(s) that will be occupied.

Train dispatchers may protect TBP limits only on controlled track(s) adjacent to where work will be performed. Limits will be defined by control points (CP's) or whole mileposts (MP's). However, if the end of the TBP limits is at the end of the subdivision, fractional milepost may be used.

Before providing protection, the train dispatcher must verify that:

- TBP limits are clear; or
- All trains granted authority within TBP limits are either:
 - Beyond the location where protection will be provided, or
 - Notified of the condition. Advise the requesting employee that approaching trains have been notified; when information is repeated correctly, state "That is correct."
- Employee has been advised of standing equipment within TBP limits.
- None of the following are in effect within the same or overlapping limits: non-directional authority to a train (Track and Time, Track Permit, or Work Between) or track out of service.
- The request includes lead unit, name of employee, limits, and track to be protected.

While Track Breach Protection is in effect:

The protection must not be removed until the employee whose name is on the Track Breach Protection states that it is safe to do so, or that employee's Hours of Service has expired.

Rule Updated Date

May 23, 2016

[^Top](#)

22.4.5: Key Train and Key Train Commodity Securement Requirements

The train dispatcher may grant permission for a Key Train or rail cars meeting the Key Train definition to be left unattended at approved locations only. Exceptions must be authorized by Regional Superintendent or higher authority before the train or equipment may be left unattended.

When such shipments are to be left unattended on a main track or siding, the dispatcher will record the information provided by the train crew, to include:

- Train ID (if applicable)
- Securement method(s)
- Location
- Number and location of hand brakes applied
- Equipment tonnage
- Equipment length
- Ruling grade
- Straight or curved track

- Number crossings cut (if applicable)
- Equipment type
- Weather conditions

Rule Updated Date

May 22, 2014

System Special Instructions

Effective Date: May 1, 2014

[^Top](#)

22.5: Precautions Against Unusual Conditions

Rule Ref: GCOR 6.21

When conditions arise that could jeopardize safety of trains, engines and employees:

1. Immediately warn all trains and employees authorized into the affected limits.
2. Set controlled signals to Stop and apply a blocking mechanism to prevent unauthorized movement into the affected area.
3. Issue track bulletins as requested and in accordance with the System Special Instructions.

In cases of extreme weather conditions such as heat, cold, or flooding, maintenance employees should be given priority to inspect track.

Rule Updated Date

September 23, 2013

System Special Instructions

Effective Date: May 1, 2014

[^Top](#)

22.5.1: Reports of Vehicle On or Near the Track

When a report is received of vehicle on or near the track, take the following actions:

1. Immediately instruct all trains approaching the area to be prepared to stop short of obstruction and protect the area.
2. Notify Response Management Control Center (RMCC) and Corridor/Director Manager.

If told that vehicle impacted the track, stop trains on affected track(s) and verify that MW is notified to inspect track.

Rule Updated Date

May 23, 2016

[^Top](#)

22.5.2: Track Removed From Service

Rule Ref: GCOR 15.4

When track is removed from service, the control operator must:

1. Apply track tag with block and comments or issue a sole occupancy dispatcher warrant.
2. Before verbally authorizing a train into out of service track, ensure the train has permission from the Employee in Charge to enter the limits.
3. The control operator must verbally grant authority to pass an absolute signal displaying a Stop indication at control points at either end of the out of service track.
4. Issue a track bulletin that removes the track from service if the track will be out-of-service 12 hours or more.

(Name) TRACK OUT OF SERVICE BETWEEN (location) AND (location) or (Name) TRACK OUT OF SERVICE AT (location). BE GOVERNED BY GCOR RULE 15.4.

Add if applicable:

- USE ONLY AS AUTHORIZED BY (name/title).
- SWITCH(ES) AT (location) LINED FOR (track).

Rule Updated Date

December 1, 2014

[^Top](#)

22.5.3: Tornado Instructions

When a dispatcher receives a tornado warning:

- Protect the limits specified in the warning with a PTT, track tag and block, TRP, or dispatcher warrant.
- Advise all trains within or approaching the affected area: inform them of the geographic limits and effective start time of the warning, and instruct them to comply with Item 16 of the System Special Instructions.
- Do not transmit an expiration time of the warning.
- When a warning has expired and no additional warnings have been issued, advise trains that the tornado warning is no longer in effect.

Rule Updated Date

August 1, 2008

[^Top](#)

22.5.4: High Wind Instructions

Passenger and Commuter Trains: Passenger trains must not be allowed to operate when actual or predicted sustained wind or gust speeds meet or exceed the following parameters:

Union Pacific Passenger Equipment 80 MPH

(includes foreign line business car specials)

Amtrak Passenger and Express Car Equipment 80 MPH

(includes Amtrak approved special trains)

West Coast Commuter Operations 80 MPH

Chicago Commuter Operations 70 MPH

Passenger and Commuter trains that must be stopped in the affected area may be moved, not exceeding 20 mph, to a staging location (e.g., station, siding, crossover location) as directed by the train dispatcher.

Freight Trains:

When actual or predicted sustained wind or gust speeds are 50 mph or greater, take the following actions. (These warnings may be in the form of Wind Detectors, Weather Data Warnings, or Local Observations. When reports are received from multiple sources, the highest projected wind speed must be used to determine blow over speed.)

- When actual or predicted sustained wind or gust speeds are 90 mph or greater, stop all trains.
- When actual or predicted sustained wind or gust speeds are 50 mph or greater, but less than 90 mph, the corridor director/manager will follow these procedures:

1. Determine the blow over speed for each train operating within or that will enter the affected area. ITMS and -94 inquiry are two available tools.

2. Trains with cars that indicate blow over speeds less than or equal to the actual or predicted sustained wind or gust speed must do one of the following:

- Stop if within the affected area. Trains that must be stopped in the affected area may be moved, not exceeding 20 mph, to a staging location (e.g., station, siding, crossover location) as directed by the train dispatcher to permit trains not affected by the wind warning to be met or passed.
- Not enter the affected area
- Be rerouted
- Set out the car that has a blow over speed less than the wind speed

3. When a train will be held or a car will be set out the corridor director/manager must notify the Superintendent (and the Intermodal manager, if intermodal equipment is involved). The Intermodal manager should be able to determine if container information is correct and advise if it is appropriate to set out the car in question or hold the train according to customer requirements.

- These restrictions will remain in place until the Weather Warning has expired or been cancelled, or until 30 minutes after the wind speeds decline or after the last gust, that restricted the train, was recorded. Concurrence of the Superintendent is necessary to release trains less than 30 minutes after last occurrence. The weather service may be contacted to confirm that the wind has abated.
- Tornado warnings are governed by Special Instructions Item 16.
- These instructions are not issued to crews because they do not normally have the means of determining the actual wind speed.

Foreign Line Trains:

If unable to determine the blow over speed for a foreign train, do not allow it into the affected area, or stop the train if it is operating within the affected area, until the foreign railroad can be contacted. Be governed by the following:

When actual or predicted sustained wind or gust speeds are 50 mph or greater, stop all trains unless the foreign carrier furnishes consist with blow over speed.

Rule Updated Date

June 25, 2016

[^Top](#)

22.5.5: Heavy Rains and Flooding Conditions

When a report (including automated weather alert) is received advising of heavy rain, flash flood or flooding conditions, be governed as follows:

1. Immediately contact all trains within or approaching the area and advise of the location or limits of the potential high water situation, adding the following verbiage: "Comply with Procedure FF at or between MP _____ and MP _____".
2. Apply blocking device to affected area.
3. Verify that track inspector is notified to proceed immediately to the area to inspect the track.
4. When the track inspector advises ready to begin inspecting, give preference to allow the track inspection, holding trains if necessary.
5. If a report is received from any source that water is over the top of the rail, instruct train(s) to stop and to remain stopped until the track has been inspected and it is determined that movement can be made safely.
6. Protection may be removed when all warnings have expired and the track has been released by an employee qualified to inspect track.
7. If necessary issue track bulletin using the following format: Flash Flood warning in effect between ___ and ___. Within these limits or specified location be governed by Rule 6.21 and 6.21.2.

Rule Updated Date

April 20, 2012

[^Top](#)

22.6: Protection Against Defects

Rule Ref: GCOR 1.1.3 and 6.21.1

A. Defect Reported by Train:

When crew members report a defect or condition, including rough track that might cause an accident, the train dispatcher will, if possible, provide protection and inform crew such protection has been provided. In addition, the train dispatcher must do the following:

1. Determine location of defect. If in doubt as to whether the reported track is passable, stop trains until advised by a maintenance employee qualified to inspect track that it is safe for movement.
2. Determine if the defect is on a bridge. If the defect or condition is on a bridge, stop trains on all tracks on that bridge until advised by a qualified bridge inspector that it is safe for movement.

3. Immediately advise any train approaching the reported defect on the same track using verbal format:

"(Train ID) Do not exceed 10 MPH at/between (location) (add track when necessary) looking out for track defects."

4. Apply a blocking mechanism to prevent unauthorized movement into the affected track until all trains requiring the restriction have been advised.
5. Notify appropriate track supervisor.

Do not authorize a loaded unit oil train to pass over a location reported as "Rough Track" until advised by a maintenance employee qualified to inspect track that is safe to do so.

B. Defect Reported by Maintenance Employees:

When maintenance employees request protection for impassable track or a track which is unsafe for normal track speed, the maintenance employee must be advised to continue providing protection until relieved by the train dispatcher.

C. Defect Reported as a Possible Broken Rail or Thermal Misalignment

When a report is received of a possible broken rail or thermal misalignment, the train dispatcher must:

1. Determine location of defect.
2. Immediately advise any train approaching the reported defect on the same track to stop before passing over the location and not proceed until authorized by a maintenance employee qualified to inspect track.
3. Apply a blocking mechanism to prevent unauthorized movement into the affected track until all trains requiring the restriction have been advised.
4. Notify appropriate track supervisor.

Do not authorize train to pass over broken rail or thermal misalignment until advised by a maintenance employee qualified to inspect track that it is safe to do so.

D. Possible Defect Observed by Train Dispatcher

When the train dispatcher observes a train or on-track equipment leaving two separate track occupancies on screen display closely behind their movement, the dispatcher must stop this movement immediately. Once stopped, the train dispatcher must:

1. Advise the crew to receive a roll-by inspection of the train or equipment from qualified employees looking out for suspected flat wheels or any other defect that may cause broken rail, not exceeding 10 mph during the roll-by inspection. (Crew must make the roll-by inspection if no other qualified employees available).
2. Notify the Signal Technician and Corridor Manager.

If no defects are found during the roll-by inspection, train or on-track equipment may proceed at normal speed.

Rule Updated Date

June 25, 2016

[^Top](#)

22.7: Emergency Stop or Severe Slack Action

Rule Ref: GCOR 6.23

Provide protection on adjacent track(s) when a train or engine is stopped by an emergency application of the brakes or severe slack action occurs while stopping. Take the following actions:

- Know that any movement within the limits to be protected has been notified of the condition before the crew is relieved of providing protection.
- Apply blocking mechanism to prevent unauthorized movement into the protected area until trains entering are notified of train in emergency or advised that adjacent track(s) are safe for passage.
- Advise the crew that protection is provided on adjacent track(s).
- In locations where a blocking mechanism cannot be used, verbally contact trains that may meet or pass affected train to advise of location and status of train stopped.

Rule Updated Date

June 25, 2015

[^Top](#)

22.8: Receiving or Discharging Passengers

Rule Ref: GCOR 6.30

When a passenger train or business car special is approaching a station where it will receive or discharge passengers, trains must not be allowed to proceed between the station platform and the passenger or business car special. Protection must be provided in one of two ways:

1. Blocking mechanism must be used to prevent unauthorized movement of trains or equipment on the affected track until advised that the passenger train or business car has departed the platform; or,

2. The train crew of the passenger train or business car must be instructed not to enter the station until it is known that the track(s) separating their train and the platform are clear and that no further movement will be authorized.

This rule does not prohibit meeting passenger trains at stations where passengers will be received or discharged.

Rule Updated Date

August 1, 2008

[^Top](#)

22.9: Automatic Warning Devices

Rule Ref: GCOR 6.32.2

When advised of a defective or malfunctioning automatic crossing warning device, the location must be immediately protected and reported to the signal technician.

When notified that an automatic warning device is malfunctioning, the train dispatcher must:

1. Obtain as much detailed information as possible about malfunction.
2. Notify closely approaching trains, instruct crew to Comply with procedure XG, using the following verbal "(Train ID) comply with procedure XG at (location)"
3. Where software allows, use a blocking mechanism to prevent unauthorized movement into affected area.
4. Contact the Harriman Dispatching Center (HDC) crossing signal technician and be governed by the technician's instructions.
 - If instructed to protect the crossing with an "XH" dispatchers will use the following format:
"(Train ID) comply with procedure XH at (location)"

5. Protection must remain in place until notified by signal technician that crossing protection is restored to normal operation.

NOTE: Where track bulletin is used, this information may be transmitted verbally to commuter trains with engineer only in the cab.

Signal technician will notify local law enforcement.

Examples of bulletins:

(XG) "AUTOMATIC CROSSING DEVICE HAS AN ACTIVATION FAILURE AT (____). RULE 6.32.2 PROCEDURE 1 APPLIES."

(XH) "AUTOMATIC CROSSING DEVICE NOT WORKING PROPERLY AT (____). RULE 6.32.2 PROCEDURE 2 APPLIES."

Rule Updated Date

November 13, 2014

System Special Instructions

Effective Date: May 1, 2014

[^Top](#)

22.9.1: Automatic Warning Devices Disabled

Rule Ref: GCOR 6.32.2

When notified that automatic warning devices are (or will be) disabled, the location must be protected by issuing the following track bulletin (XS) or, where software allows, use a blocking mechanism to prevent unauthorized movement into affected area.

"AUTOMATIC CROSSING DEVICE DISABLED AT (____). RULE 6.32.2 PROCEDURE 1 APPLIES."

If using a blocking mechanism, advise trains of location before allowing entry into the affected area using the verbal format:

“(Train ID) comply with procedure XS at (location).”

The train dispatcher can modify this format as needed to accommodate a start time, multiple crossing devices disabled within the same Form B or area, and also to specify which tracks are affected.

Rule Updated Date

April 29, 2011

[^Top](#)

22.10: Insufficient Clearance at Road Crossings

Rule Ref: GCOR 6.32.4,GCOR 6.32.7

When notified road crossings not cut as required by Rule 6.32.4 and the road crossing will be left unattended, the location must be protected by issuing the following track bulletin (XC) or, where software allows, use a blocking mechanism to prevent unauthorized movement into affected area.

"DO NOT EXCEED 15 MPH APPROACHING CROSSING(S) AT (location) UNTIL CROSSING(S) ARE OCCUPIED."

If using a blocking mechanism, advise trains of location before allowing entry into the affected area using the verbal format:

“(Train ID) comply with procedure XC at (location).”

Rule Updated Date

August 1, 2008

[^Top](#)

22.11: Impaired Sight Distance or Missing/Damaged Crossbucks or Signs

Rule Ref: GCOR 6.32.2, MW 53.1.1

When notified of impaired sight distance or missing/damaged crossbucks or signs, the location must be protected by issuing the following track bulletin (XI) or, where software allows, use a blocking mechanism to prevent unauthorized movement into affected area.

"DO NOT EXCEED 15 MPH (at location) UNTIL CROSSING IS OCCUPIED."

If using a blocking mechanism, advise trains of location before allowing entry into the affected area using the verbal format:

"(Train ID) comply with procedure XI at (location)."

Rule Updated Date

May 23, 2016

[^Top](#)

[Union Pacific Rules](#)

[Train Dispatcher Rules](#)

23.0: SWITCHES AND BLOCK SYSTEM RULES

- [23.1: Main Track Switches in TWC Territory](#)
- [23.2: Hotbox Signal Clear](#)
- [23.3: Where Stop Must Be Made](#)
- [23.4: Changing Established Route](#)
- [23.5: Protection During Repairs or Testing](#)
- [23.6: Authority to Proceed](#)
- [23.7: Failure to Display Most Restrictive Indication](#)
- [23.8: Track Occupancy Indication \(TKO\)](#)
- [23.9: Intermittent Track Occupancy Indication](#)
- [23.10: Stop Indications / CTC / Manual Interlockings](#)
- [23.11: Manual Interlockings](#)
- [23.12: Stop Signal / Automatic Interlockings](#)
- [23.13: Stop Signal / ABS Territory](#)
- [23.13.1: Stop Indications / Hold Points](#)
- [23.14: Hand Operation of Dual Control Switches to Perform Switching](#)
- [23.15: Rule Deleted](#)
- [23.16: Authorizing Movement Against the Current of Traffic](#)
- [23.17: Voiding Track Bulletin Form C For Single Track Operation](#)
- [23.18: Issuing Track Permits](#)
- [23.19: Clearing Track Permits](#)
- [23.20: Signal Protection in ABS by Lining Switch](#)
- [23.21: Electrically Locked Switches and Derails](#)
- [23.22: Repositioning Dual Control Switches](#)

23.1: Main Track Switches in TWC Territory

Rule Ref: GCOR 8.3

- Do not authorize a train to leave main track switch open in non-signaled TWC territory.
- A main track switch may only be left open when authorized by track warrant in signaled TWC except when train crews are applying the 7th bullet of GCOR Rule 8.3 (Main Track Switches).

Rule Updated Date

April 29, 2011

[^Top](#)

23.2: Hotbox Signal Clear

When the Stop signal linked to a hotbox detector (if equipped with radio-transmitted verbal indicators that talk on defect only) fails to clear for a train, and the hotbox detector has not notified the train dispatcher of a defect, before transmitting "Hotbox Signal Clear" for that Stop signal, the train dispatcher must ask the train crew if the detector transmitted a "No Defects" message.

If the detector transmitted a "No Defects" message, the Stop signal may be cleared for the train. The signal technician must be notified regarding the detector's failure to communicate with the CAD system.

If the detector did not transmit a "No Defects" message, contact the signal technician and ask whether any defects show on the remote readout, for this train.

1. If the signal technician reports that the remote readout indicates there are no defects, the Stop signal may be cleared and the train authorized to continue at normal speed or,
2. If the signal technician reports that a remote readout, for this train, has not been received (or can not be retrieved), the train dispatcher must consider this condition as a "DETECTOR MALFUNCTION with no defect message received". The train dispatcher must instruct the train crew to comply with the instructions found in System Special Instruction Item 13 Failed Detector Situation Table.

Hotbox Hold Signal Clear instructions do not apply to the EC4. The EC4 test equipment activates a hot axle defect when passing over a hotbox detector.

The train dispatcher may release the Hotbox Hold Signal clear before the EC4 passing the detector and disregard the detector message.

Rule Updated Date

April 1, 2015

[^Top](#)

23.3: Where Stop Must Be Made

Rule Ref: GCOR 9.5

Should a train fail to stop short of a controlled signal displaying Stop that was not "in time," the following action must be taken immediately:

1. Instruct the train to stop and remain stopped. Stop any conflicting movements approaching the train and warn any employees holding authorities.
2. Protect the location. Set signals governing access to the area to Stop and apply blocking mechanism to all affected tracks.
3. Notify Corridor Director/Manager.
4. Train must not be allowed to proceed until released by field management officer, Corridor Director/Manager or proper supervisor.

Rule Updated Date

August 1, 2008

[^Top](#)

23.4: Changing Established Route**Rule Ref: GCOR 9.5.1**

Any signal once requested must be considered as proceed signal regardless of screen display.

Rule Updated Date

August 1, 2008

[^Top](#)

23.5: Protection During Repairs or Testing**Rule Ref: GCOR 9.5.3****A. Repair**

When control of a Control Point has been transferred to a signal technician, do not authorize any movement at that location unless:

- The signal technician clearly understands the movement to be made
- The signal technician gives train dispatcher permission to grant authority at that location or returns control to train dispatcher

B. Testing

The train dispatcher may grant permission to a signal employee to take control of CTC or Manual Interlocking control point(s) for the purpose of signal testing or other signal maintenance not requiring Foul Time or Track and Time.

Signal employees must not be permitted or instructed to line switches or establish signal routes for train movements unless the CTC or Manual Interlocking site is in fail status and cannot be controlled by the train dispatcher or control operator.

Rule Updated Date

June 25, 2016

[^Top](#)

23.6: Authority to Proceed**Rule Ref: GCOR 9.5.4**

Do not establish a signal route:

- To proceed against current of traffic, unless it is known the movement has been authorized by GCOR Rule 15.3 (Authorizing Movement Against the Current of Traffic), or by special instructions.
- To enter a track that has been removed from service.
- For the first train to enter a section of track in which an intermittent track occupancy has been observed.
- When a field officer requests that a signal be held at Stop position to conduct a Field Training Exercise (FTE), control operator will not attempt to clear the signal until advised by the field officer that the test has been completed.

Rule Updated Date

August 1, 2008

[^Top](#)

23.7: Failure to Display Most Restrictive Indication

Rule Ref: GCOR 9.7

When a report is received that a signal fails to display its most restrictive indication, or when a request is received from the signal department to comply with Rule 23.7:

1. Stop all movements at and between the controlled signals governing the approach to the location of reported malfunction until protection has been established.
2. Place the affected limits in manual mode and set signals to Stop.
3. Notify HDC signal technician.
4. Do not give train permission or authority to proceed unless authorized by the Corridor Director/Manager or proper supervisor.

When authorized by the Corridor Director/Manager or proper supervisor to begin train movement again:

1. Provide protection by requiring that all trains move through the limits at restricted speed until the condition is corrected.
2. Use a track bulletin to issue the following:

"BETWEEN (CP/location) AND (CP/location) ALL MOVEMENT MUST BE MADE AT RESTRICTED SPEED."

If using a blocking mechanism instead of issuing a track bulletin. Instructions must be issued in the same format as the track bulletin example.

3. Normal operations may be resumed when released by appropriate signal department manager.

Rule Updated Date

August 1, 2008

[^Top](#)

23.8: Track Occupancy Indication (TKO)

Before authorizing a train to pass a signal displaying Stop indication into a track segment in which a track occupancy indication of unknown origin is present, advise the crew of the track occupancy indication.

If a TKO (track occupancy indication) remains behind a train which is following one or more other trains, before authorizing an opposing movement to pass signal displaying Stop into the TKO, train dispatcher must confirm by radio that the last train has cleared that control point. Do not depend on train tracking to make this determination.

Rule Updated Date

August 1, 2008

[^Top](#)

23.9: Intermittent Track Occupancy Indication

When a train dispatcher observes an intermittent track occupancy indication of unknown origin in CTC (other than within Control Point), that portion of track must be protected by applying a blocking mechanism to prevent unauthorized movement into the affected area.

A track occupancy indication will be considered intermittent when it occurs more than once within one hour within the same limits without a cause being identified.

Unless the track is inspected by Signal Department or MW employee, the first train movement into the affected area must be authorized to pass signal displaying Stop indication using the following wording:

"AFTER STOPPING, (Train ID) AT (location) HAS AUTHORITY TO PASS SIGNAL DISPLAYING STOP INDICATION (Add: Route and Direction if more than one route is available). DO NOT EXCEED RESTRICTED SPEED TO (next CP)."

Note: A train receiving this instruction must proceed at restricted speed from the signal displaying Stop indication until the head end of the train reaches the next controlled signal regardless of the aspects displayed by any signals having number plates.

It is imperative that the Signal Technician be notified as soon as an intermittent track occupancy is identified to minimize train delay.

Rule Updated Date

April 29, 2011

[^Top](#)

23.10: Stop Indications / CTC / Manual Interlockings

Rule Ref: GCOR 9.12.1, 9.12.2, and 9.13

Before verbally authorizing a train by a Stop Indication, the Control Operator must ascertain the position of the switch:

If the switches show to be lined and locked for the intended route, apply Paragraph A.

If the switches are not lined and locked (out of correspondence), apply Paragraph B.

A. Stop Indication Where Dual Control Switches Show to Be Lined and Locked for Intended Route or Where There Are No Switches.

Before authorizing a train to proceed past Stop indication, the dispatcher must know that:

- The crew has signal aspect in view
- There are no conflicting movements
- Blocking Mechanism has been applied to prevent unauthorized movement into the protected area
- The affected switch(es) are lined for the intended route by requested signal or OS Block applied
- The affected switch(es) are locked by a Switch Block

- All train dispatchers or control operators, including foreign railroads, controlling any signaled route within a manual interlocking, have been contacted to determine that no conflicting movements have been or will be authorized

- If in PTC territory, the Enter/Pass Authority (EPA) function is used

Use verbal format:

"AFTER STOPPING, (Train ID) AT (location) HAS AUTHORITY TO PASS SIGNAL DISPLAYING STOP INDICATION." (Add: Route and Direction if more than one route is available)

Removal of blocking mechanisms:

1. Do not remove the blocking mechanism from the dual control switches until the train has entered the protected limits.
2. Do not remove the blocking mechanism from the protected area until the train has entered the limits and the next controlled signal has been established in direction of movement.

B. Stop Indication with Dual Control Switches Not Lined and Locked

The train dispatcher must conduct a job briefing with the employee:

- A. Advise the employee of the route to be taken,
- B. What is wrong at that location (which turnout or crossover does not show to be lined and locked),
- C. Clearly instruct the employee to hand operate the switch(es) that cannot be lined and locked for movement. If movement is to be made through a crossover that must be lined by hand, instruct the employee to hand operate both switches of the crossover, as well as any moveable point frogs, if so equipped. If unable to clearly communicate exactly which switch(es) must be operated by hand, instruct the employee to hand operate all dual control switches required for their movement within the control point.

Example: "Your route will be from Main 1 to Main 2 at CP A120. I cannot get the east crossover switches to line and lock for your movement. I need you to hand operate all switches of the east crossover for your movement."

D. Only after the employee has repeated a clear understanding of which switch(es) must be operated by hand, the train dispatcher will give the employee authority to pass Stop indication and proceed in the proper direction on the assigned route using the following steps:

Before authorizing a train to proceed past Stop indication, the dispatcher must know that:

- The crew has signal aspect in view
- There are no conflicting movements
- Blocking Mechanism has been applied to prevent unauthorized movement into the protected area
- If possible, line switch(es) for intended route
- The affected switch(es) are locked by a Switch Block

- All train dispatchers or control operators, including foreign railroads, controlling any signaled route within a manual interlocking, have been contacted to determine that no conflicting movements have been or will be authorized

- If in PTC territory, the Enter/Pass Authority (EPA) function is used

Use verbal format:

"AFTER STOPPING, (Train ID) AT (location) HAS AUTHORITY TO PASS SIGNAL DISPLAYING STOP INDICATION."

(Add: Route and Direction if more than one route is available)

Removal of blocking mechanisms:

1. Do not remove the blocking mechanism from the dual control switches until the train has entered the protected limits.
2. Do not remove the blocking mechanism from the protected area until the train has entered the limits and the next controlled signal has been established in direction of movement.

C. Conflicting Movement

When the control operator has stopped a conflicting movement, he may then authorize another train to proceed in the same limits, advising both crews of movement to be made.

Note: After job briefing, stopped movement may then be allowed to proceed.

Or

Both trains may be issued joint track and time.

Rule Updated Date

June 25, 2016

[^Top](#)

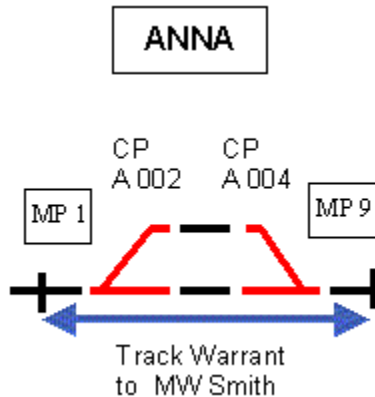
23.11: Manual Interlockings

Do not authorize on-track equipment to proceed through a manual interlocking until all train dispatchers or control operators, including foreign railroads, controlling any signaled route within the manual interlocking, are contacted to determine that no conflicting movements have been or will be authorized before granting Foul Time permit.

The dispatcher or control operator may issue verbal authority for on-track equipment to proceed through manual interlocking limits if track authority has been issued to the employee on both sides of the interlocking limits.

Before verbally authorizing employee through a manual interlocking, route must be lined and blocked.

For example:



MW Smith has a track warrant to work between MP 1 and MP 9. The train dispatcher may verbally authorize him through the manual interlockings located at CP A002 and CP A004.

Rule Updated Date

June 25, 2016

[^Top](#)

23.12: Stop Signal / Automatic Interlockings

Rule Ref: GCOR 9.12.3

When a train reports that they are unable to get a proceed indication at an automatic interlocking within CTC territory, before authorizing the train past the stop indication, the train dispatcher must:

1. Verify that the crew has complied with instructions in the release box.
2. Ensure that train has authority to occupy track beyond the Stop signal.
3. Ascertain no conflict of authority exists.

Use verbal format:

"AFTER STOPPING (Train ID) AT (location) HAS AUTHORITY TO PASS SIGNAL DISPLAYING STOP INDICATION."

When reported that instructions are not in release box, or in special instructions, do not verbally authorize train movement through an automatic interlocking. Signal technician must be notified.

Rule Updated Date

April 29, 2011

[^Top](#)

23.13: Stop Signal / ABS Territory

Rule Ref: GCOR 9.12.4

On single main track, before granting permission for movement to pass Stop in ABS territory the train dispatcher must:

1. Ensure that train has authority to occupy track beyond the Stop indication.
2. Ascertain no conflict of authority exists.

Use verbal format:

"AFTER STOPPING (Train ID) AT (location) HAS PERMISSION TO PASS SIGNAL DISPLAYING STOP INDICATION."

Rule Updated Date

April 29, 2011

[^Top](#)

23.13.1: Stop Indications / Hold Points

Rule has been deleted.

Rule Updated Date

August 24, 2015

[^Top](#)

23.14: Hand Operation of Dual Control Switches to Perform Switching

Rule Ref: GCOR 9.13.1,GCOR 9.13.2

The train dispatcher may permit a train crew member to place a dual control switch in hand position.

When a train crew member is granted permission to place a switch in hand position, the train dispatcher must:

1. Verify that there are no conflicting movements.

2. Apply blocking mechanism to switch(s) and all track segments affected in all directions to prevent unauthorized movement into the protected area. Advise trains (or equipment operating on signal indication) authorized into any affected track segment that signal indications may change.
3. Specify which tracks are authorized to be occupied and direction(s) movement is authorized.

Do not remove blocking mechanism used to protect area until advised switch has been restored to power position.

Rule Updated Date

December 20, 2010

[^Top](#)

23.15: Rule Deleted

Rule Updated Date

May 5, 2009

[^Top](#)

23.16: Authorizing Movement Against the Current of Traffic

Rule Ref: GCOR 6.25,GCOR 15.3

Before issuing authority for a train to move against the current of traffic, the train dispatcher must:

1. Know that all train and engine movements are clear of the affected track.
2. Ensure the limits of authority are designated by clearly identifiable points that allow the train or engine to access a crossover or other switch(s) to clear the limits.
3. Ensure that protection against opposing movements on the track to be occupied has been provided at or beyond the point where movement will be completed by flag protection or by a controlled signal set to display Stop indication and blocking mechanism applied.
4. Issue track bulletin to:
 - First opposing train, if any. (Verify this train will not clear main track, allowing other opposing trains to enter the limits.)
 - All trains with crews on duty, including locals and work trains that will be operating with the current of traffic within the designated limits.
5. Notify yardmasters, yard crews, and other concerned employees.
6. Issue track bulletin to train that is to move against current of traffic only after all affected trains have been issued track bulletin.

Protection for movement against current of traffic must be maintained until train is known to be clear of limits.

Rule Updated Date

May 5, 2009

[^Top](#)

23.17: Voiding Track Bulletin Form C For Single Track Operation

Rule Ref: GCOR 6.25,GCOR 15.3

To void a track bulletin Form C for single track operation as outlined in Rule 15.3 (Authorizing Movement Against the Current of Traffic) item 2 to a specific train or trains, while leaving the track bulletin Form C in effect to other trains, issue the following:

"TRACK BULLETIN NO. (#) OF (date) IS VOID TO (Engine, direction)."

The track bulletin must also be addressed to the flagman. Provide a copy of this track bulletin to all affected.

Rule Updated Date

August 1, 2008

[^Top](#)

23.18: Issuing Track Permits

Rule Ref: GCOR 9.15.1

To issue a track permit:

A. When track permit limits are clear, track is occupied by requesting employee, or all trains moving on signal indication without track permit have passed location where track is to be fouled:

1. Set signals to display Stop and apply blocking mechanism to controls to prevent access into the protected area.
2. Issue track permit.

Any track permit issued behind trains must include notification that authority is granted behind such trains.

Dispatcher must know that employee in the field has identified, by initials and engine number, any train(s) without a track permit that are within the limits to be occupied, or that the train has physically passed the point where maintenance employee will foul track. The train dispatcher may assist in making this determination.

B. If a track permit is in effect within the limits:

1. If track permit is held by a train, ensure it is not exceeding restricted speed.
2. If previous track permit is not already joint, change first track permit to joint.
3. Issue a joint permit.

C. On operating territories where more than one train dispatcher or control operator is responsible for providing protection at entry points into track permit limits, each train dispatcher or control operator must provide appropriate protection and record that a track permit has been established.

Track permits for maintenance employees must be issued as joint occupancy unless it is reasonably expected that the limits will not be jointly occupied or that the employee requests that the authority be issued sole.

When issuing Track Permits to trains outside the limits to be granted, advise the crew that verbal authority past Stop indication to enter the limits at either end will follow the issuance of authority.

Rule Updated Date

August 1, 2008

[^Top](#)

23.19: Clearing Track Permits

Rule Ref: GCOR 9.15.2

Joint track permits issued to trains must not be released until train clears limits or is sole occupant.

Rule Updated Date

August 1, 2008

[^Top](#)

23.20: Signal Protection in ABS by Lining Switch

Rule Ref: GCOR 9.17.1

When permitting a crew to cross over, foul or obstruct a main track signaled for movement in one direction train dispatcher must:

1. Ensure that no movements have been or will be authorized against the current of traffic and apply protection to affected area.
2. Not authorize movement against the current of traffic at that location until crew reports track is clear.

Rule Updated Date

August 1, 2008

[^Top](#)

23.21: Electrically Locked Switches and Derails

Rule Ref: GCOR 9.18

When a seal has been broken or emergency release operated on an electric lock, a signal technician must be notified.

Rule Updated Date

August 1, 2008

[^Top](#)

23.22: Repositioning Dual Control Switches

Do not reposition a dual control switch within track and time, foul time, track permit, Form B, or track out of service limits until an understanding is reached with all affected trains or employees as to the move to be made.

Rule Updated Date

July 26, 2010

[^Top](#)

[Union Pacific Rules](#)

[Train Dispatcher Rules](#)

24.0: CTC RULES

- [24.1: Authority to Enter CTC Limits](#)
- [24.2: Track and Time](#)
- [24.2.1: Protection of Limits](#)
- [24.2.2: Issuing Track and Time](#)
- [24.2.3: Track and Time within Manual Interlocking](#)
- [24.2.4: Joint Track and Time](#)
- [24.2.5: Issuing Foul Time](#)
- [24.2.6: Additional Time](#)
- [24.2.7: Shunting Signal Circuits](#)
- [24.3: CTC Failure](#)
- [24.3.1: Repairing Codeline Failure During a CTC Outage](#)

24.1: Authority to Enter CTC Limits

Rule Ref: GCOR 10.1

Before verbally authorizing train to enter CTC between block signals and operate in a specified direction:

1. It must be known that no conflicting movement is occupying or authorized to enter the track. If authority is to be granted behind train(s), notify train entering CTC of this condition of authority.
2. Set signals governing access into the area to be occupied to Stop and apply blocking mechanism(s) to prevent unauthorized movement into protected area.
3. If in PTC territory, the Enter/Pass Authority (EPA) function is used.

Use verbal Format:

"(Train ID) AT (location) HAS AUTHORITY TO ENTER (track) AND PROCEED (direction)."

Blocking mechanism(s) must not be removed until it is known that movement has occupied the track.

Rule Updated Date

December 28, 2015

[^Top](#)

24.2: Track and Time

Rule Ref: GCOR 10.3

At locations designated in the timetable as CTC, train dispatchers may grant track and time:

- If limits are clear
- If limits are occupied by train to be granted track and time; or
- If all trains within limits have been identified by employee in the field as having passed the location where track will be occupied.

Any track and time issued behind trains must include notification that authority is granted behind such trains.

Dispatcher must know that employee in the field has identified, by initials and engine number, any train(s) without track and time that are within the limits to be occupied or that the train has physically passed the point where maintenance employee will foul track. The train dispatcher may assist in making this determination.

Rule Updated Date

August 1, 2008

[^Top](#)

24.2.1: Protection of Limits

Before granting track and time authority, protect the limits as follows:

- Apply blocking mechanism(s) to prevent unauthorized movement into protected area.
- Line and lock dual control switches within the limits for the movement. If a switch within the track and time limits does not indicate locked, instruct the employee to operate that switch by hand.
- Record the Track and Time authority.

Where automated functions are available, they must be used. Where automated functions are not available, use the prescribed form.

To protect work being performed, issue track and time or foul time unless track bulletin Form B is in effect or track is out of service.

Rule Updated Date

July 23, 2010

[^Top](#)

24.2.2: Issuing Track and Time

Before issuing Track and Time, set signals governing access into the affected limits to Stop and apply blocking mechanism. Signals that are in time, flashing or requested are not considered at Stop.

When issuing Track and Time to trains outside the limits to be granted, advise the crew that verbal authority past Stop indication to enter the limits at either end will follow the issuance of authority.

At locations where more than one train dispatcher or control operator provides protection at entry points into Track and Time limits, each must provide protection and record that Track and Time authority has been issued.

Do not issue Track and Time with "Switch Yes" to a train, or MW equipment operating as a train, unless at the end of CTC and the limits will be jointly occupied with MW.

Rule Updated Date

January 28, 2014

System Special Instructions

Effective Date: May 1, 2014

[^Top](#)

24.2.3: Track and Time within Manual Interlocking

Rule Ref: GCOR 10.3.1

At Manual Interlocking locations authorized by timetable, train dispatchers may grant track and time.

Rule Updated Date

August 1, 2008

[^Top](#)

24.2.4: Joint Track and Time

Rule Ref: GCOR 10.3.3

Before track and time is granted where limits will be jointly occupied, the train dispatcher must:

- Know that trains to be granted joint track and time within the limits are moving at restricted speed.
- Issue joint track and time to all trains, machines, track cars or employees within the same limits or that will enter the limits.

When trains are included, do not issue joint or overlapping limits to more than four occupants.

Track and time for maintenance employees must be issued as joint occupancy unless it is reasonably expected that the limits will be not jointly occupied or that the employee requests that the authority be issued sole.

Rule Updated Date

August 1, 2008

[^Top](#)

24.2.5: Issuing Foul Time

Foul time authorizes exclusive occupancy of a control point or manual interlocking. Foul time may NOT be issued Joint. The train dispatcher or control operator must not verbally authorize trains or other employees to enter foul time limits.

When issuing foul time, verify that signals governing access into the limits are at Stop and apply blocking mechanism. Signals that are in time, flashing or requested are not considered at Stop.

If the control operator controls all routes at a control point or manual interlocking, foul time may be issued for all tracks. If all routes are not to be included, the control operator must specify which tracks or routes the foul time includes.

If the control operator does not control all routes at a control point or manual interlocking, advise the employee copying the foul time that the route is not included in their authority. They will need to obtain protection from the control operator that controls that route.

Rule Updated Date

August 1, 2008

[^Top](#)

24.2.6: Additional Time

Rule Ref: GCOR 10.3 B

If track and time / foul time has expired and the limits have not been released, the train dispatcher must continue to provide protection until the limits have been released.

Additional time may be granted and must include a repeat of the permit number.

Rule Updated Date

May 18, 2015

[^Top](#)

24.2.7: Shunting Signal Circuits

When issuing track and time or foul time to employees to perform work within a control point, determine if they will shunt the signal circuits. It is not necessary to make this determination if:

- Authority is being granted to an operator of on-track equipment for the purpose of moving through the control point; or
- Blocking mechanisms have been applied to all affected track segments to prevent an unintended change of signal indications for approaching trains(s).

If work will shunt the signal circuit, or if dual control switch is to be taken off power:

- Advise trains (or equipment operating on signal indication) authorized into any affected track segment that signal indications may change.
- Apply blocking mechanism to all affected track segments.

Do not authorize movements into the protected area until affected movements are notified that signal indications may change.

Rule Updated Date

August 1, 2008

[^Top](#)

24.3: CTC Failure

During a CTC outage the screen display is no longer an accurate depiction of where trains may be located, if signals are or are not established, or if switches are lined and locked.

Do NOT depend on what the display shows when making judgments on the status of signals, switches or trains operating within the territory.

In the event of a CTC outage, the following actions must be taken:

1. Place affected track(s) in manual mode.
2. Remove any stack route requests that were placed before the outage.
3. Verbally determine the location of each train within the area affected by the CTC outage and place each train symbol in the proper track segment.

Before authorizing a train to pass a signal displaying Stop indication within the limits of the CTC outage, or at a control point outside of the CTC outage for movement toward the first control point in monitor, verify there is no conflicting movement by doing the following:

- Verbally determine the location of any train(s) that may present a potential conflicting movement
- Verbally instruct the first train that may present a potential conflicting movement, if stopped, to remain stopped, regardless of signal indication
- Verbally instruct the first train that may present a potential conflicting movement and that is still operating on signal indication, of the point where it must stop movement, regardless of signal indication received at that point

Issue instructions to hand operate dual control switches.

Rule Updated Date

June 25, 2016

[^Top](#)

24.3.1: Repairing Codeline Failure During a CTC Outage

Rule Ref: GCOR 10.3

During a CTC outage the screen display is no longer an accurate depiction of where trains may be located, if signals are or are not established or if switches are lined and locked.

Do NOT depend on what the display shows when making judgments on the status of signals, switches or trains operating within the territory.

When a CTC code line has failed and **it is necessary to operate on-track equipment or Hy-Rail vehicles with track and time for the purpose of repairing the codeline**, a Manager Central Train Dispatch and Manager Signal Operations must be notified and the following applies:

1. Place affected tracks in manual mode.
2. Stop any trains within outage and the first-out trains approaching limits of outage area and instruct them to remain stopped and to get ready to copy a track bulletin. (Ensure first approaching train at limits will not clear the main track.)
3. Issue Form C track bulletin specifying the limits of CTC failure.
Between (CP/MP/LOCATION) and (CP/MP/LOCATION) on (TRACK) movement may be made only under track and time authority.
4. Ascertain the location of each train within the area affected by the CTC outage and place each train symbol in the proper track segment. **Note:** After this has been accomplished, Manager of Central Train Dispatch will notify Manager of Signal Operations to INITIALIZE those control points within or at the limits of any track and time to be issued. (This will clear the office display to permit track and time issuance but does not take down any field signals.)
5. Issue employee track and time, specifying joint if train in limits and instructions to hand operate all dual control switches which must be passed over specifying route.

When it becomes necessary to issue track and time to a TRAIN within or approaching the CTC outage:

1. Issue authority from a control point to a control point and do not include any dual-control switches.
2. Instruct trains NOT to act on any proceed indications displayed by absolute signals within the CTC outage area until contacting the train dispatcher.
3. Instruct trains to hand operate all dual control switches over which they will pass.

When restored to full operation, void track bulletin to each train OR issue a new track bulletin to cover a shortened area of outage.

Rule Updated Date

June 25, 2016

[^Top](#)

[Union Pacific Rules](#)

[Train Dispatcher Rules](#)

25.0: CAB SIGNAL and PTC TERRITORIES

System Special Instructions

Effective Date: May 2, 2016

- [25.1: Cab Signals Cut Out](#)
- [25.1.1: Reports of Cab Signal Failure](#)
- [25.2: ATC Territory](#)
- [25.2.1: Authority to Cutout ATC](#)
- [25.2.2: Absolute Block Protection](#)
- [25.3: ATS Territory](#)
- [25.4: CCS/ACS Territory](#)
- [25.4.1: Returning Movements in ACS Territory](#)
- [25.5: PTC Failure](#)
- [25.5.1: PTC Display and Block Signals Do Not Agree](#)

25.1: Cab Signals Cut Out

Before authorizing an engineer to cut out the cab signal system, determine whether the engineer has properly acknowledged the cab signal. The engineer should do the following:

1. If the acknowledging lever is in the PARTIAL CUTOOUT position (C/O), move the acknowledging lever to the NORMAL position (NOR) and leave it there for 1 second.
2. Move the acknowledging lever from the NORMAL position (NOR) to the ACKNOWLEDGE position (ACK), hold it there for 1 second, and release it back to the NORMAL position (NOR).
3. If in non-cab signal territory, move the acknowledging lever to the PARTIAL CUTOOUT position (C/O) to turn off the cab signal light.
4. Reset the air brakes if a penalty brake application occurred as specified in Air Brake and Train Handling Rule 33.9 (Penalty Brake Application).

Rule Updated Date

August 1, 2008

[^Top](#)

25.1.1: Reports of Cab Signal Failure

If 2 different trains report that they experience "train control" or a restricting cab signal indication where one should not have existed at the same location, signal technician must be notified.

Rule Updated Date

August 1, 2008

[^Top](#)

25.2: ATC Territory

Rule Ref: GCOR 17.7

1. ATC FAILURE with OPERATIVE CAB SIGNALS

Establish Absolute Block in advance of movement per Rule 11.1 using verbal format:

"(Engine and Direction) ABSOLUTE BLOCK IS ESTABLISHED IN ADVANCE OF YOUR TRAIN BETWEEN (location) and (location) GCOR RULE 11.2 GOVERNS" (Signal Indications with Absolute Block).

- Ensure that limits to be established with absolute block do not extend beyond crew change location or train dispatcher territory boundary in which cab signal system is in effect.
- Ensure the block directly ahead of train is not or will not be occupied by another train.
- Record in Unusual Occurrences:

1. Time and location where ATC was cut out.

2. Limits between which absolute block was established.

- Notify the locomotive help desk about inoperative ATC.

Note: When absolute block is established in advance of a train, the train dispatcher must not authorize movement past any signal reported as indicating Stop or Restricting until the block governed by that signal is clear of trains.

2. ATC and CAB SIGNAL FAILURE

A. In ATC Territory with Wayside Signals

- Instruct crew to cut out ATC and cab signals using verbal format:

"(Engine and Direction) CUT OUT ATC AND CAB SIGNAL DEVICE AND OPERATE ACCORDING TO GCOR RULE 13.3.3" (Movement with an Inoperative Cab Signal Device)

- Establish absolute block in advance of movement per Rule 11.1 using verbal format:

"(Engine and Direction) ABSOLUTE BLOCK IS ESTABLISHED IN ADVANCE OF YOUR TRAIN BETWEEN (location) and (location). GCOR RULE 11.2 GOVERNS" (Signal Indications with Absolute Block).

- Ensure that limits to be established with absolute block do not extend beyond crew change location or beyond territory in which cab signal system is in effect.
- Record in Unusual Occurrences:

1. Time and location where ATC and cab signals were cut out.
 2. Limits between which absolute block was established.
- Notify the locomotive help desk about inoperative ATC and cab signals.

Note: When absolute block is established in advance of a train, the train dispatcher must not authorize movement past any signal reported as indicating Stop or Restricting until the signal governing that block is clear of trains.

B. In ATC Territory without Wayside Signals

- Instruct crew to cut out ATC and cab signals using verbal format:

"(Engine and Direction) CUT OUT ATC AND CAB SIGNAL DEVICE AND OPERATE ACCORDING TO GCOR RULE 17.7" (ATC Failure/Cut-out Enroute)

- Establish absolute block in advance of movement using verbal format:

"(Engine and Direction) ABSOLUTE BLOCK IS ESTABLISHED IN ADVANCE OF YOUR TRAIN BETWEEN (location) and (location) NO TRAINS ARE OR WILL OCCUPY THESE LIMITS AHEAD OF YOUR TRAIN.

- Ensure that limits to be established with absolute block do not extend beyond crew change location or beyond territory in which cab signal system is in effect.
- Ensure the entire limits between the locations identified ahead of train is not or will not be occupied by another train.
- Record in Unusual Occurrences:

1. Time and location where ATC and cab signals were cut out.
 2. Limits between which absolute block was established.
- Notify the locomotive help desk about inoperative ATC and cab signals.

Note: When absolute block is established in advance of a train, the train dispatcher must not authorize movement past any signal reported as indicating Stop or Restricting until the block governed by that signal is clear of trains.

(To determine where wayside signals are located, refer to Subdivision General Order.)

Rule Updated Date

August 1, 2008

[^Top](#)

25.2.1: Authority to Cutout ATC

In ATC territory, when it becomes necessary to operate against the current of traffic for other than a planned event, the train dispatcher cannot instruct the engineer to cut out the train control device. The ATC device must remain operative and the train must operate at restricted speed until such time as it can return to its normal route.

Rule Updated Date

August 1, 2008

[^Top](#)

25.2.2: Absolute Block Protection

In areas where **all of the following are in effect:**

- ATC Territory without continuous fixed block signals
- Rule 9.14 **and Rule 9.15**

Before establishing and transmitting Absolute Block to train, Train dispatcher must first ensure that the route is lined for the train through the entire limits of the Absolute Block.

Rule Updated Date

April 1, 2015

[^Top](#)

25.3: ATS Territory

Rule Ref: GCOR 12.2

ATS FAILURE

Establish Absolute Block in advance of movement per Rule 11.1 using the verbal format:

"(Engine and Direction) ABSOLUTE BLOCK IS ESTABLISHED IN ADVANCE OF YOUR TRAIN BETWEEN (location) and (location). GCOR RULE 11.2 GOVERNS" (Signal Indications with Absolute Block).

- Ensure that limits to be established with absolute block do not extend beyond crew change location or beyond territory in which ATS system is in effect.
- Ensure the block directly ahead of train is not or will not be occupied by another train.
- Record in Unusual Occurrences:

1. Time and location where ATS was cut out.
2. Limits between which absolute block was established.

- Notify the locomotive help desk about inoperative ATS.

Note: When absolute block is established in advance of a train, the train dispatcher must not authorize movement past any signal reported as indicating Stop or Restricting until the block governed by that signal is clear of trains.

Rule Updated Date

August 1, 2008

[^Top](#)

25.4: CCS/ACS Territory

Rule Ref: GCOR 13.3.3

CAB SIGNAL FAILURE

A. While operating on territories with wayside signals:

- Instruct crew to cut out cab signals using verbal format:

"(Engine and Direction) CUT OUT CAB SIGNAL DEVICE AND OPERATE ACCORDING TO GCOR RULE 13.3.3"
(Movement with an Inoperative Cab Signal Device)

- Establish Absolute Block in advance of movement per Rule 11.1.

"(Engine and Direction) ABSOLUTE BLOCK IS ESTABLISHED IN ADVANCE OF YOUR TRAIN BETWEEN
(location) AND (location). GCOR RULE 11.2 GOVERNS" (Signal Indications with Absolute Block).

- Ensure that limits to be established with absolute block do not extend beyond crew change location or beyond territory in which cab signal system is in effect.
- In cab signal territory, ensure the block directly ahead of train is not or will not be occupied by another train.
- Record in Unusual Occurrences:

1. Time and location where cab signal device was cut out.
2. Limits between which absolute block was established.

- Notify the locomotive help desk about inoperative cab signal device.

Note: When absolute block is established in advance of a train, the train dispatcher must not authorize movement past any signal reported as indicating Stop or Restricting until the signal governing that block is clear of trains.

B. While operating on territories without wayside signals:

- Instruct crew to cut out cab signals using verbal format:

"(Engine and Direction) CUT OUT CAB SIGNAL DEVICE AND OPERATE ACCORDING TO GCOR RULE 13.3.3"
(Movement with an Inoperative Cab Signal Device in Territory without Block Signals)

- Establish Absolute Block in advance of movement per Rule 11.1.

"(Engine and Direction) ABSOLUTE BLOCK IS ESTABLISHED IN ADVANCE OF YOUR TRAIN BETWEEN
(location) AND (location). NO TRAINS ARE OR WILL OCCUPY THESE LIMITS AHEAD OF YOUR TRAIN."

- Ensure that limits to be established with absolute block do not extend beyond crew change location or beyond territory in which cab signal system is in effect.
- Ensure the entire limit between the locations identified ahead of train is not or will not be occupied by another train.

- Record in Unusual Occurrences:
 1. Time and location where cab signal device was cut out.
 2. Limits between which absolute block was established.
- Notify the locomotive help desk about inoperative cab signal device.

C. When cause is known:

If the cause of the cab signal failure is known (i.e. commercial power outage or storm damage).

- Establish Absolute Block in advance of movement per Rule 11.1.

In territory with Wayside Signals:

"(Engine and Direction) ABSOLUTE BLOCK IS ESTABLISHED IN ADVANCE OF YOUR TRAIN BETWEEN (location) AND (location). GCOR RULE 11.2 GOVERNS" (Signal Indications with Absolute Block).

In territory without Wayside Signals:

"(Engine and Direction) ABSOLUTE BLOCK IS ESTABLISHED IN ADVANCE OF YOUR TRAIN BETWEEN (location) AND (location). NO TRAINS ARE OR WILL OCCUPY THESE LIMITS AHEAD OF YOUR TRAIN."

- Ensure that limits to be established with absolute block do not extend beyond crew change location or beyond territory in which cab signal system is in effect.
- In cab signal territory, ensure the block directly ahead of train is not or will not be occupied by another train.
- Record in Unusual Occurrences, limits between which absolute block was established.
- Notify the signal technician regarding the location where the inoperative cab signals have been reported.

Note: When absolute block is established in advance of a train, the train dispatcher must not authorize movement past any signal reported as indicating Stop or Restricting until the block that is governed by that signal is clear of trains.

Rule Updated Date

August 1, 2008

[^Top](#)

25.4.1: Returning Movements in ACS Territory

Rule Ref: GCOR 13.1.3

Before lining signals in ACS Territory to allow a lite locomotive consist to return to its train when it is not equipped or not tested for movement in that direction, establish an absolute block in advance of the returning movement as outlined in Rule 25.4.

Rule Updated Date

August 1, 2008

[^Top](#)

25.5: PTC Failure

When the train dispatcher is notified of an enroute PTC failure, it must be reported to the locomotive help desk and Corridor Director/Manager as soon as possible.

When required, the dispatcher must authorize the crew to perform a soft cut out the PTC system.

Rule Updated Date

December 28, 2015

[^Top](#)

25.5.1: PTC Display and Block Signals Do Not Agree

When displayed signals and the locomotive PTC screen do not agree, the dispatcher will:

- Report the problem to the locomotive help desk and Corridor /Director Manager as soon as possible
- When required, the dispatcher must authorize the crew to perform a soft cut out of the PTC system. If at an absolute signal or manual interlocking, the dispatcher must use the Enter/Pass Authority (EPA) function and verbally authorize the train pass Stop indication

Rule Updated Date

December 28, 2015

[^Top](#)

[Union Pacific Rules](#)

[Train Dispatcher Rules](#)

26.0: TWC RULES

- [26.1: When Issuing Track Warrants](#)
- [26.2: Clearing Track Warrants](#)
- [26.2.1: Clearing Track Warrants in Non-signaled Territory](#)
- [26.3: When Issuing Restriction by Track Warrant](#)
- [26.4: Yard Limits in ABS-TWC Territory](#)
- [26.5: Operating With Track Warrants](#)
- [26.5.1: Clearing Main Track](#)
- [26.5.2: Disjointed Authority](#)
- [26.6: Occupying Same Track Warrant Limits](#)
- [26.7: Protection of Trains in Non-Signaled TWC Territory](#)
- [26.8: Protecting Men or Equipment](#)
- [26.9: Mechanical Transmission of Track Warrants](#)

26.1: When Issuing Track Warrants

Rule Ref: GCOR 14.0,GCOR 2.14

State intent to verbally issue a track warrant and determine who will copy. When the employee informs that they are ready to copy:

1. Complete input of information in all required fields on the track warrant screen.
2. When transmitting, state the box number of each box marked.
3. Read each word of the line(s) chosen, including preprinted words, but may exclude the "Date" and "At Location." Do not add, change or delete any information contained within the body of the track warrant during the verbal issuance of the track warrant.
4. Use Box 12 only to record computer-generated messages or specific instructions required to operate the train safely and efficiently. Do not use Box 12 to list track bulletins or to convey information that concerns work on line.
5. Record name of employee(s) who copies repeats, relays or reports clear.
6. Confirm that the employee's statement of the summary matches the track warrant screen and includes total number of boxes marked and names each individual box marked.
7. If all information, including the summary, is correct, say "OK" with the time and dispatcher's initials as displayed on the CAD ORS screen.

Rule Updated Date

April 1, 2014

System Special Instructions

Effective Date: May 1, 2014

[^Top](#)

26.2: Clearing Track Warrants

Care must be taken to ensure the correct track warrant is released. Train dispatchers' repeat of release must include, at a minimum, track warrant number, release time, and name of employee releasing.

Rule Updated Date

June 25, 2016

[^Top](#)

26.2.1: Clearing Track Warrants in Non-sigaled Territory

In non-sigaled TWC territory, do not accept the release of a track warrant until it is confirmed that all main track switches operated have been restored and locked in the normal position.

If switches were operated by a train crew within the limits of a train's track warrant, confirm that the conductor and engineer have both initialed the Conductor Report Form (if required), before accepting the release of the track warrant.

Rule Updated Date

April 1, 2015

[^Top](#)

26.3: When Issuing Restriction by Track Warrant

Rule Ref: GCOR 14.0

When a track restriction is to be issued using Box 11 or 12:

- Restriction must be included each time a track warrant is issued to that train or engine, until restriction has been passed.
- Restriction must be included on train dispatcher transfer if train or engine has not passed the restriction.

Rule Updated Date

April 1, 2014

System Special Instructions

Effective Date: May 1, 2014

[^Top](#)

26.4: Yard Limits in ABS-TWC Territory

Rule Ref: GCOR 14.1

Do not issue track warrants to maintenance employees through Yard Limits in ABS-TWC territory.

Rule Updated Date

August 1, 2008

[^Top](#)

26.5: Operating With Track Warrants

Rule Ref: GCOR 14.4

The use of Box 7 to authorize train movements (within limits not jointly occupied) is to be restricted to only those train crews that advise they need to work in both directions.

Rule Updated Date

April 1, 2014

System Special Instructions

Effective Date: May 1, 2014

[^Top](#)

26.5.1: Clearing Main Track

When a train is operating with Track Warrant Box 3 authority and must clear the main track at a siding at the last named point to meet or pass a train, Track Warrant Box 5 (Clear Main Track At Last Named Point) must be used.

This rule does not apply at those locations where the end-of-siding switches are Manual Interlockings.

Rule Updated Date

April 1, 2014

System Special Instructions

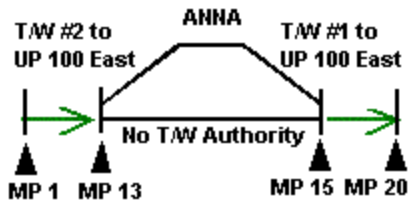
Effective Date: May 1, 2014

[^Top](#)

26.5.2: Disjointed Authority

Disjointed authorities are any set of track warrant authorities that are issued to the same train on the same main track that have a gap between the two track warrant authorities.

Example of a disjointed authority:



Within TWC Territory, disjointed track warrant authorities on the same main track must not be issued to trains except:

- A. Disjointed authorities may be issued where short sections of CTC, Current of Traffic, Manual Interlocking, Yard Limits where TWC is not in effect or other method of control exists within a TWC Territory or,
- B. Disjointed authorities may be issued where the train's current track warrant contains Box 5 ("Clear Main Track At Last Named Point") and the "FROM" location on the second track warrant is the same as the "TO" location on the current track warrant.

Rule Updated Date

April 1, 2014

System Special Instructions

Effective Date: May 1, 2014

[^Top](#)

26.6: Occupying Same Track Warrant Limits

Rule Ref: GCOR 14.4

A. Conditional Authorities:

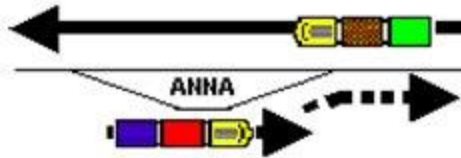
Track Warrant Box 2 (Not in effect until after the arrival of):

- In non-signaled TWC territory, a train receiving a track warrant containing a Box 2 must be stopped at the meeting point before the issuance of the track warrant, unless the meeting point is at a manual interlocking.

Note: A train stopped short of the meeting point for topographical reasons (e.g., to lay off road crossings, grade considerations, etc.) is considered as stopped at the meeting point.

Diagram 1

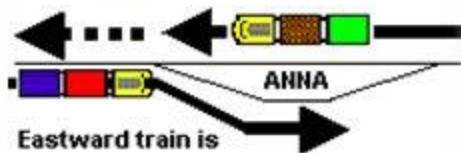
Westward train is operating past ANNA



Eastward train is "stopped" in the siding at ANNA and can be issued another track warrant that includes a Box 2

Diagram 2

Westward train is "stopped" on the main track at ANNA and can be issued another track warrant that includes a Box 2



Eastward train is approaching ANNA with instructions to "Clear Main Track at Last Named Point" and can not be issued another track warrant that includes a Box 2 until the movement has been stopped at the meeting point.

- Track Warrant Box 6 (Do not foul limits ahead of):

In non-sigaled territory, do not issue track warrants to trains containing a Box 6.

B. Joint Occupancy:

Trains:

Do not issue joint authority to require operation at restricted speed unless it is known that the limits will be jointly occupied.

Men or Equipment:

Issue joint authority for men or equipment unless it is reasonably expected that the limits will not be jointly occupied or when the employee requests that the authority be issued sole.

C. Track Warrant Box 10:

Do not issue more than three joint track warrants in the same or overlapping limits.

- Train dispatcher may advise that a train or employee has cleared the limits.
- Limits of authority should be short enough to allow for radio communication between employees.

D. Overlapping Track Warrant Limits:

In non-signaled TWC territory, do not issue a track warrant Box 3 (Proceed) to a train through another train's track warrant that contains a Box 7 (Work Between).

Rule Updated Date

May 23, 2016

[^Top](#)

26.7: Protection of Trains in Non-Signaled TWC Territory

Rule Ref: GCOR 6.19 in TWC

When a train is operating in non-signaled TWC territory, train dispatcher must not authorize following movements within the same limits.

Rule Updated Date

August 1, 2008

[^Top](#)

26.8: Protecting Men or Equipment

Rule Ref: GCOR 14.5

A. Before men or equipment may be authorized in the same or overlapping limits:

- Ensure that all track warrants to men or equipment in the same or overlapping limits with other men or equipment are made joint.
- When authority will not be jointly held with a train or engine, use Box 6, "DO NOT FOUL LIMITS AHEAD OF (initials, engine number, direction)."

B. Use of Box 6 is permitted only after the following conditions have been met:

Dispatcher must know that employee in the field has identified, by initials and engine number, any train(s) listed in the track warrant Box 6 or that the train has physically passed the point where maintenance employee will foul track. The train dispatcher may assist in making this determination.

Rule Updated Date

April 1, 2014

System Special Instructions

Effective Date: May 1, 2014

[^Top](#)

26.9: Mechanical Transmission of Track Warrants

Rule Ref: GCOR 14.13

Before mechanically transmitting a track warrant, the train dispatcher must verify it for accuracy.

Rule Updated Date

August 1, 2008

[^Top](#)

[Union Pacific Rules](#)

[Train Dispatcher Rules](#)

27.0: TRACK BULLETIN RULES

- [27.1: Track Bulletins](#)
- [27.1.1: Request to Issue Track Bulletins](#)
- [27.1.2: Issuing Track Bulletins in Territory Controlled by Terminal Train Dispatchers or Control Operators](#)
- [27.1.3: Track Bulletin Instructions](#)
- [27.2: Track Bulletin Examples](#)
- [27.3: Track Warrant for Bulletins](#)
- [27.4: Not Used](#)
- [27.5: Protection by Track Bulletin Form B](#)
- [27.6: Change of a Rule, General Order, or Special Instruction](#)
- [27.7: Voiding Track Bulletins](#)
- [27.7.1: Verbally Raising a Speed Restriction](#)

27.1: Track Bulletins

Rule Ref: GCOR 15.1

The train dispatcher is responsible for issuing and delivering track bulletins providing necessary information concerning conditions that affect safe operation. Track bulletins must be accurate, concise and in the proper format.

Rule Updated Date

August 1, 2008

[^Top](#)

27.1.1: Request to Issue Track Bulletins

When a request is received to issue a track bulletin:

- Repeat information to the employee making request, ensuring that information corresponds with request and complies with the rules.
- Input information into the system, including the name of employee making the request and the date of the request.

Rule Updated Date

August 1, 2008

[^Top](#)

27.1.2: Issuing Track Bulletins in Territory Controlled by Terminal Train Dispatchers or Control Operators

When track bulletins are issued that pertain to train movement in territories controlled by a terminal train dispatcher or control operator, the train dispatcher must confirm that:

- Protection is in place until all trains have been notified of the restriction, and
- The terminal train dispatcher or control operator has received the bulletin.

Rule Updated Date

August 1, 2008

[^Top](#)

27.1.3: Track Bulletin Instructions

Issuance of track bulletins:

- If an unforeseen restriction will not be repaired within 12 hours, a track bulletin must be issued.
- When a crew member tells a train dispatcher of a restriction in the train's equipment that is not covered under special instructions or a general order, the train dispatcher must immediately cover the restriction by track bulletin or track warrant.
- Do not issue multiple track bulletins of the same type in the same bulletin territory, if possible.
- Review all Form A and C bulletins daily, combining A's with A's, C's with C's, where possible.
- Do not modify an existing track bulletin to eliminate overlapping speed restrictions. Overlapping restrictions must be shown in the proper sequence in the track bulletin. Sequence all restrictions as they would be encountered in one geographic direction. Restrictions of a like nature can be grouped within a Form C track bulletin, but geographic sequence must be maintained within each grouping.
- When a speed restriction cannot be placed in a Form A due to the length of text describing the limits of the restriction, issue in a Form C, separate from other Form C's. More than one speed restriction may be contained in the same Form C track bulletin.
- Any Form C track bulletin requiring an action or active response by a crew member must not be combined with Form C track bulletins of an informational nature when it can be avoided.
 - Examples of bulletins which require action by crewmembers are speed restrictions, sounding whistle and bell frequently and preparing to stop short of a flagman.
 - Examples of informational bulletins include the condition of the right of way, track material distributed, and tracks removed from service.
- All train dispatchers must be aware that any instructions contained within a Form C that are permanent in nature (e.g., close clearance between building and track, or walkway removed from bridge) should not stay on the Form C for an extended period of time. The Manager of Track Maintenance must be prompted to have this information issued as a Superintendent's Bulletin.

- When composing track bulletins, care must be taken to select wording that will convey a proper description of a condition. As an example, "BAD FOOTING" or "POOR FOOTING" implies a vague condition, whereas "UNEVEN FOOTING" or "TRACK MATERIAL DISTRIBUTED" describe specific conditions.

Rule Updated Date

July 23, 2010

[^Top](#)

27.2: Track Bulletin Examples

Whenever possible, use CAD track bulletin high-use formats. The following are some examples of prescribed Form C wording:

A. Against the Current of Traffic:

(Engine, direction) WILL USE (name) TRACK AGAINST THE CURRENT OF TRAFFIC (point) TO (point). BE GOVERNED BY GCOR RULE 15.3.

B. Automatic Cab Signal System Temporarily Removed From Service:

FROM (time) (date) UNTIL (time) (date), CAB SIGNALS WILL BE REMOVED FROM SERVICE BETWEEN (location) AND (location). CAB SIGNAL INDICATION MUST BE DISREGARDED WHILE IN THIS AREA. ABSOLUTE BLOCK IS ESTABLISHED IN ADVANCE OF TRAINS WHILE IN THIS AREA. BE GOVERNED BY GCOR RULE 11.2.

C. Block Signal(s) Temporarily Removed From Service:

SIGNAL (id) (or NORTHWARD SIGNAL AT MP ___) REMOVED FROM SERVICE AND THE BLOCK EXTENDED FROM SIGNAL (id) (or NORTHWARD SIGNAL AT MP ___) TO SIGNAL (id) (or NORTHWARD SIGNAL AT MP ___).

D. Change or Cancel a General Order or Special Instruction:

- GENERAL ORDER NO. (#) (or SPECIAL INSTRUCTIONS ITEM #) WILL NOT APPLY TO (train IDS).
- GENERAL ORDER NO. (#) (or SPECIAL INSTRUCTIONS ITEM #) IS CHANGED AS FOLLOWS: (list changes).
- GENERAL ORDER NO.(#) IS IN EFFECT AS FOLLOWS: (list).

E. Excessive Dimension Equipment Being Handled:

EXCESSIVE DIMENSION EQUIPMENT (car #) ON TRAIN (engine # or train symbol) (# of) FEET (# of) INCHES WIDE ENROUTE (location) TO (location). BE GOVERNED BY GCOR RULE 1.36.

Note: Use train symbol unless engine has been dedicated to train.

F. Notice of Timetable Change:

(Name) AREA TIMETABLE NO. (#) TAKES EFFECT AT (time and date).

Note: This track bulletin must be put into effect at least 24 hours in advance and remain in effect for 6 days after the effective date of the timetable.

G. Suspend a Block System:

BLOCK SYSTEM SUSPENDED ON (name) TRACK BETWEEN (location) AND (location). BE GOVERNED BY GCOR RULE 9.23. MAXIMUM SPEED (#) MPH.

Note: Not to exceed 59 MPH for passenger trains or 49 MPH for other trains.

Trains operating with PTC must stop at the first suspended signal and perform a soft cut out of the PTC system, and must stop at the first working signal and perform a soft cut in of the PTC system.

Add, if applicable:

- INTERLOCKING SIGNALS AT (location) REMAIN IN SERVICE.
- AUTOMATIC CROSSING SIGNALS AT (location) ARE OUT OF SERVICE.
- SWITCH AT (location) LINED FOR (track).
- SPRING SWITCH AT (location) SPIKED FOR (track).

H. Track Material Distributed:

TRACK MATERIAL DISTRIBUTED (at location) or (between locations).

I. Track Removed From Service:

(Name) TRACK OUT OF SERVICE BETWEEN (location) AND (location) or (Name) TRACK OUT OF SERVICE AT (location). BE GOVERNED BY GCOR RULE 15.4.

Trains operating with PTC must stop before entering the track OOS and perform a soft cut out of the PTC system, and must stop before entering track that is in service and perform a soft cut in of the PTC system.

Add if applicable:

- USE ONLY AS AUTHORIZED BY (name/title).
- SWITCH(ES) AT (location) LINED FOR (track).

J. Train Defect Detector Removed From Service (when authorized by Regional Director in train management):

TRAIN DEFECT DETECTOR LOCATED AT (location) REMOVED FROM SERVICE. BE GOVERNED BY SYSTEM SPECIAL INSTRUCTIONS ITEM 13.

K. Walkway Removed or Damaged:

WALKWAY ON BRIDGE (location) PERMANENTLY REMOVED FROM SERVICE or TEMPORARILY REMOVED FROM SERVICE.

WALKWAY ON BRIDGE (location) DAMAGED AND MUST NOT BE USED.

Rule Updated Date

December 28, 2015

[^Top](#)

27.3: Track Warrant for Bulletins

Rule Ref: GCOR 15.1

When issuing a Track Warrant for Bulletins, the train dispatcher must:

- Issue only one track warrant for bulletins. If the number of bulletins exceeds the CAD system configuration, contact the MCTD.
- Ensure that all track bulletins in effect between the point of origin and destination of the crew are listed on the track warrant for bulletins.
- If a crew member indicates that the initial track warrant for bulletins was not received or is incorrect, or the train dispatcher is unsure if any changes in the track bulletins have occurred since the initial track warrant for bulletins was sent:
 - Instruct crew to destroy any existing copies.
 - Void the original track warrant for bulletins from the system. Do not use a Box 1 on the track warrant for this purpose.
 - Issue a new track warrant for bulletins.

Whenever sending a subsequent track warrant for bulletins to a remote printer or device, verify that crew received the correct set of track bulletins.

Rule Updated Date

May 18, 2015

[^Top](#)

27.4: Not Used

Rule Updated Date

August 10, 2012

[^Top](#)

27.5: Protection by Track Bulletin Form B

Rule Ref: GCOR 15.2

When issuing track bulletin Form B the train dispatcher must:

- Issue a minimum of 12 hours before any part of the bulletin goes into effect, when possible
- Ensure that Form B track bulletins do not extend into a second day.
- Not issue Form B with limits that overlap another foreman/gangs limits.
- If listing Form B limits of an adjacent track on a separate line, include correct milepost locations.

Note: When a Form B request is received for limits that extend beyond both ends of a siding and applies on both main track and siding, it is not necessary to indicate placement of yellow-red flags for siding.

- Ensure that the "flags" column contains:
 - A blank space, indicating that flags are two miles from the restriction, or
 - The mile post location(s) of flag(s) displayed less than two miles from the restriction

Rule Updated Date

May 18, 2015

[^Top](#)

27.6: Change of a Rule, General Order, or Special Instruction

Rule Ref: GCOR 15.6

When authorized by the Corridor Director or higher authority, a track bulletin may be used to issue, change or cancel rules, general orders or special instructions.

When a General Order or Superintendent Bulletin is issued which protects a restriction or conveys information contained in a track bulletin, the track bulletin may be voided.

Rule Updated Date

August 1, 2008

[^Top](#)

27.7: Voiding Track Bulletins

Rule Ref: GCOR 15.13

The train dispatcher may not modify an active track bulletin, except as defined in GCOR Rule 15.13.1 and RTDCO 27.7.1 Verbally Raising a Speed Restriction. The only options are:

- Voiding a numbered line on a track bulletin
- Voiding a portion of a track bulletin
- Voiding a track bulletin in its entirety

When voiding a track bulletin in its entirety the dispatcher must:

- Verify that the time limits or authority granted in the track bulletin have expired before voiding that bulletin, unless authorized by employee in charge.
- Void track bulletin and reissue under a different number if an error is discovered after the complete time has been entered.

A. Form A Track Bulletins:

When a dispatcher receives a request to change an active Form A track bulletin, the dispatcher must:

1. Issue a new Form A track bulletin.
2. Void the specific line item to be changed in the existing Form A track bulletin.

B. Form B Track Bulletins:

When a dispatcher receives a request to void a portion of an active Form B track bulletin, the dispatcher must:

1. Issue a separate Form C track bulletin using format: "Line(s) (#) of Track Bulletin (#) is (are) void."
2. Continue delivering the Form B track bulletin to those addressed, as well as the Form C track bulletin voiding a portion of the Form B, until the latest time limit on the Form B track bulletin has expired.

C. Form C Track Bulletins:

When a dispatcher receives a request to change an item contained within an active Form C track bulletin, the dispatcher must:

1. Issue a new Form C track bulletin.
2. Void the requested portion of the existing Form C track bulletin.

Rule Updated Date

June 10, 2015

[^Top](#)

27.7.1: Verbally Raising a Speed Restriction

Rule Ref: GCOR 15.13.1

The dispatcher may verbally raise the speed on an existing restriction contained in a Form A track bulletin. The dispatcher may not lower the speed nor change the limits.

To verbally raise the speed on an existing restriction, inform the crew of the track bulletin and the line number of the restriction to be changed. When informed that the crew is ready to copy, use the format:

"(Train ID), Track Bulletin (number), Line (number), (MP) to (MP), (original MPH) (adding track if necessary), speed is increased to (new higher MPH)"

Rule Updated Date

November 30, 2015

[^Top](#)

Union Pacific Rules

Air Brake and Train Handling Rules

30.0: Train Air Brake Tests/Inspections Chapter 30

- [30.0: Train Air Brake Tests and Inspections](#)
- [30.1: Compliance with FRA Regulations](#)
- [30.1.1: Qualified Inspectors](#)
- [30.2: General Requirements](#)
- [30.2.1: Coupling and Securing Air Hoses](#)
- [30.2.2: Operative Brakes](#)
- [30.2.3: Employee in Charge During Air Brake Test](#)
- [30.2.4: Standard Brake Pipe Pressure](#)
- [30.2.5: Charging Air Brake System](#)
- [30.2.6: Air Brake Tests Using Gauge or End-of-Train Device](#)
- [30.2.6.1: Air Brake Tests Using Hand Held Gauges](#)
- [30.3: Initial Terminal Air Brake Test \(Class I Air Brake Test\)](#)
- [30.3.1: Initial Terminal Air Brake Test \(Class I\) Requirements](#)
- [30.3.2: Initial Terminal Air Brake Test \(Class I\) Procedure](#)
- [30.3.3: Initial Terminal Air Brake Test \(Class I\) Notification](#)
- [30.3.4: Cycle Trains](#)
- [30.3.5: Trains Designated as Extended Haul](#)
- [30.3.6: Attaching Locomotive to Cars Previously Class I Tested Using Yard Air or Other Locomotive](#)
- [30.4: 1,000 Mile Inspection Tests \(Class IA Brake Test\)](#)
- [30.4.1: 1,000 Mile Inspection Tests \(Class IA Brake Test\)](#)
- [30.5: Transfer Train Movement Air Test](#)
- [30.5.1: Transfer Train Movement Air Test](#)
- [30.6: Test When Cutting Off and Recoupling](#)
- [30.6.1: Test When Cutting Off and Recoupling](#)
- [30.7: Application and Release Test \(Class III Brake Test\)](#)
- [30.7.1: Application and Release Test \(Class III Brake Test\) Requirements](#)
- [30.8: Inbound Mechanical Inspection](#)
- [30.8.1: Inbound Train Inspection](#)
- [30.9: Train Information](#)
- [30.9.1: Train Information](#)
- [30.10: Air Brake Test and Inspection Charts/49 CFR 232](#)
- [30.10.1: Air Brake Test Requirements](#)
- [30.11: Air Brake Tests and Inspection Procedures](#)
- [30.11.1: Brake Inspection Requirements](#)

- [30.11.2: Brake Pipe Leakage Test](#)

30.0: Train Air Brake Tests and Inspections

30.0 Train Air Brake Tests and Inspections

Rule Updated Date

February 12, 2013

[^Top](#)

30.1: Compliance with FRA Regulations

<p>30.1</p> <p><i>49 CFR</i> <i>215.13</i> <i>232.1</i></p>	<p>Compliance with FRA Regulations</p> <p>Inspect and test brake equipment in accordance with Federal Railroad Administration (FRA) regulations contained within these rules. This is the responsibility of the employee(s) who perform the work, unless otherwise instructed.</p> <p>The status of the inspection/test must be communicated to the relieving crew verbally or by written notification left on the controlling locomotive.</p>
--	---

Rule Updated Date

January 20, 2012

[^Top](#)

30.1.1: Qualified Inspectors

<p>30.1.1</p> <p><i>49 CFR</i> <i>232.203</i></p> <p>Reference Glossary</p>	<p>Qualified Inspectors</p> <p>Inspections and air brake tests must be performed by either a "Qualified Person", "Qualified Mechanical Inspector" or a "Qualified Maintenance Person" as specified by Federal Regulations.</p>
--	---

Rule Updated Date

January 20, 2012

[^Top](#)

30.2: General Requirements

30.2 General Requirements

Rule Updated Date

January 20, 2012

[^Top](#)

30.2.1: Coupling and Securing Air Hoses

<p>30.2.1 <i>49 CFR</i> <i>232.107</i></p>	<p>Coupling and Securing Air Hoses Before coupling air hoses between locomotives and/or cars, employees must:</p> <ul style="list-style-type: none">• Shake debris out of the hoses and• Blow all condensation from the locomotive brake pipe or yard air line.
---	---

Rule Updated Date

May 2, 2016

[^Top](#)

30.2.2: Operative Brakes

<p>30.2.2 <i>49 CFR</i> <i>232.103</i> Reference SSI Item 2-F</p>	<p>Operative Brakes These requirements apply to air brake tests and inspections:</p> <ul style="list-style-type: none">• All cars must have operative air brakes. Exceptions:<ul style="list-style-type: none">• Cars with defective air brakes may be moved for repairs when properly tagged on both sides by a Qualified Mechanical Inspector.• Scale test cars are not required to be equipped with air brakes, but if equipped, the brakes must be operable.• Brakes that fail en route.• At least 85% of the cars in a train must have operative brakes.
--	---

	<ul style="list-style-type: none"> • To determine the number of operative brakes in a train, refer to Item 2-F in System Special Instructions. • Cars with brakes that fail en route must be tagged on both sides and noted on train documentation. Leave information for the relieving crew, and notify the dispatcher or Mechanical Help Desk. Train documentation that reflects such cars may be transmitted by electronic means to relieving crews.
--	---

Rule Updated Date

May 2, 2016

[^Top](#)

30.2.3: Employee in Charge During Air Brake Test

<p>30.2.3 <i>49 CFR</i> <i>232.205</i></p>	<p>Employee in Charge During Air Brake Test The employee performing the air brake test is in charge while the test is being conducted and must ensure that all other employees are safely positioned before beginning the test. The employee in control of the air brakes must not apply or release brakes without permission from the employee performing the air brake test.</p>
---	--

Rule Updated Date

January 20, 2012

[^Top](#)

30.2.4: Standard Brake Pipe Pressure

<p>30.2.4 <i>49 CFR</i> <i>232.103</i></p>	<p>Standard Brake Pipe Pressure Regulating valve must be set at 90-psi. (Passenger and Freight Equipment) Note: When UP employees are operating foreign line passenger trains, they are governed by the foreign line's instructions.</p>
---	---

Rule Updated Date

January 20, 2012

[^Top](#)

30.2.5: Charging Air Brake System

<p>30.2.5</p> <p><i>49 CFR</i> <i>232.103</i></p> <p>Reference Rule 32.1.2 32.2.1</p>	<p>Charging Air Brake System</p> <p>When charging the system:</p> <ul style="list-style-type: none"> • Do not charge a train's air brake system with more than one automatic brake valve cut-in unless utilizing distributed power locomotives. • If main reservoir pressure falls below 100-psi, engine RPM may be increased not to exceed throttle position 2. • If using a remote control locomotive, use the charge feature on the remote control transmitter. <p>In yards where trains are made up, when unattended locomotives are used to charge the brake system, the automatic brake valve may be left in release position.</p>
--	--

Rule Updated Date

May 2, 2016

[^Top](#)

30.2.6: Air Brake Tests Using Gauge or End-of-Train Device

<p>30.2.6</p> <p><i>49 CFR</i> <i>232.205</i></p>	<p>Air Brake Tests Using Gauge or End-of-Train Device</p> <p>When required to determine brake pipe pressure at rear of train, any of the following devices may be used:</p> <ul style="list-style-type: none"> • An accurate gauge. • An EOT. • A distributed power locomotive. <p>To determine that the brakes apply and release on the rear car, the requirement is considered fulfilled when either an EOT or power consist attached to the rear of the train indicates the following:</p> <ul style="list-style-type: none"> • Brakes are applied when brake pipe pressure decreases by at least 5-psi. • Brakes are released when brake pipe pressure increases by at least 5-psi.
--	---

Rule Updated Date

January 20, 2012

[^Top](#)

30.2.6.1: Air Brake Tests Using Hand Held Gauges

<p>30.2.6.1</p>	<p>Air Brake Tests Using Hand Held Gauges</p> <p>Handheld gauges used for air brake test purposes must be determined to be accurate within the last 92 days. A method of checking accuracy of the hand held gauge is outlined below:</p> <ol style="list-style-type: none"> 1. Utilizing a locomotive brake pipe gauge, have engineer release automatic brake valve and charge brake pipe to 90 psi. 2. Attach handheld gauge to brake pipe of the controlling locomotive. 3. Compare pressure indicated by the handheld gauge to locomotive brake pipe gauge. 4. If pressure indicated by handheld gauge is within 3 psi of locomotive brake pipe gauge reading, the handheld gauge may be used to conduct air brake tests. 5. The date of the most recent pressure comparison must be noted on a sticker applied to the gauge or on a document in the possession of the user. <p>Note: Gauges that are not within 3 psi of the locomotive reading must not be used to conduct air brake tests and must be repaired or replaced.</p>
------------------------	---

Rule Updated Date

May 2, 2016

[^Top](#)

30.3: Initial Terminal Air Brake Test (Class I Air Brake Test)

<p>30.3 Initial Terminal Air Brake Test (Class I Air Brake Test)</p>

Rule Updated Date

January 20, 2012

[^Top](#)

30.3.1: Initial Terminal Air Brake Test (Class I) Requirements

<p>30.3.1</p> <p><i>49 CFR 232.205</i></p> <p>Reference Rule 1.33 30.3.5 30.10.1 30.11.1</p>	<p>Initial Terminal Air Brake Test (Class I) Requirements</p> <p>A. Test Must be Conducted on entire train:</p> <ul style="list-style-type: none"> • Where the train is originally assembled. • When a unit or cycle train has traveled 3,000 miles since its last Initial Terminal Air Brake Test (Class I). • When adding or removing more than one solid block. <p>B. Test Must be Conducted on a Portion of the Train or Cars Added to the Train When:</p>
---	--

<p>30.11.2 Glossary</p>	<ul style="list-style-type: none"> • Car(s) added are not a solid block. • A portion of the train has been off air for more than 4 hours. <p>Note: On trains designated as Extended Haul, test must be performed by a Qualified Mechanical Inspector.</p> <ul style="list-style-type: none"> • A solid block of cars being added to the train is composed of cars from more than one previous train. • Cars added from a previous train have not remained continuously and consecutively coupled with the train line remaining connected unless: <ul style="list-style-type: none"> • Removing defective equipment from the solid block. • Separated into multiple solid blocks due to space or trackage constraints. Cars must be re-coupled in the same relative order as removed. <p>C. Test Not Required When:</p> <ul style="list-style-type: none"> • Adding or removing only one solid block. • Removing defective cars. • Repositioning cars to meet hazardous material or restricted car placement requirements. • Changing any locomotive consist(s).
-----------------------------	---

Rule Updated Date

May 2, 2016

[^Top](#)

30.3.2: Initial Terminal Air Brake Test (Class I) Procedure

<p>30.3.2 <i>49 CFR</i> <i>232.205</i></p> <p>Reference Rule 30.10.1</p>	<p>Initial Terminal Air Brake Test (Class I) Procedure</p> <p>When performing an Initial Terminal Air Brake Test (Class I), comply with the procedures outlined in Rule 30.10.1.</p>
---	---

Rule Updated Date

January 20, 2012

[^Top](#)

30.3.3: Initial Terminal Air Brake Test (Class I) Notification

<p>30.3.3</p> <p><i>49 CFR</i> <i>232.205</i></p> <p>Reference Rule 5.10 30.10.1 32.9.4</p>	<p>Initial Terminal Air Brake Test (Class I) Notification</p> <p>The engineer and conductor must know they have the required written notification that an Initial Terminal Air Brake Test (Class I) was performed on their entire train. Notification will be left on the controlling unit and will include:</p> <ul style="list-style-type: none"> • Name of inspector. • Date and time test was completed. • Location where test was performed. • Number of cars inspected. <p>Written notification may be provided to the engineer and conductor by:</p> <ul style="list-style-type: none"> • Air Brake Test Form at the initial terminal. • Electronic means in the space provided on the train documentation. <p style="text-align: center;">or</p> <ul style="list-style-type: none"> • Information may be communicated to the engineer or conductor that the test has been completed and entered on the Air Brake Test Form or on space provided on train documentation. <p>If the test was performed by train crew members, the required information must be entered on an Air Brake Test Form, if available, or in space provided on the train documentation by the conductor or engineer.</p> <p>Note: When there is a conflict between train documentation and the Air Brake Test Form, the Air Brake Test Form will govern.</p>
--	--

Rule Updated Date

May 2, 2016

[^Top](#)

30.3.4: Cycle Trains

<p>30.3.4</p> <p><i>49 CFR</i> <i>232.5</i> <i>232.205</i> <i>232.207</i></p> <p>Reference Rule 30.3.5 Glossary</p>	<p>Cycle Trains</p> <p>Cycle trains must meet the following conditions:</p> <ul style="list-style-type: none"> • Must not be operated more than 3,000 miles before another Initial Terminal Air Brake Test (Class I) is required. • 1,000 Mile Inspection (Class IA) must be performed each 1,000 miles. • A bulk commodity train designated as extended haul must be governed by Rule 30.3.5.
--	--

Rule Updated Date

May 2, 2016

[^Top](#)

30.3.5: Trains Designated as Extended Haul

<p>30.3.5</p> <p><i>49 CFR</i> <i>232.213</i></p> <p>Reference Rule 30.1.1</p>	<p>Trains Designated as Extended Haul</p> <p>Trains designated as Extended Haul must be given an Initial Terminal Air Brake Test (Class I) performed by a Qualified Mechanical Inspector at the initial terminal.</p> <p>These trains must not:</p> <ul style="list-style-type: none"> • Operate more than 1,500 miles before an additional air brake test is performed when designated as Extended Haul 1,500. • Operate more than 1,680 miles before an additional air brake test is performed when designated as Extended Haul 1,680. • Make more than one pick up and one set out between the initial terminal and the next designated inspection point, excluding set out of defective equipment. • Move any cars with defective equipment, regardless of whether tagged appropriately. <p>Any cars or solid block of cars added en route must be given an Initial Terminal Air Brake Test (Class I) by a Qualified Mechanical Inspector (either at the time of pick up or pretested) at the location the cars are added.</p>
---	---

Rule Updated Date

May 2, 2016

[^Top](#)

30.3.6: Attaching Locomotive to Cars Previously Class I Tested Using Yard Air or Other Locomotive

<p>30.3.6</p> <p><i>49 CFR</i> <i>232.205</i> <i>232.217</i></p> <p>Reference Rule 30.3 30.7 32.5.1 Glossary</p>	<p>Attaching Locomotive to Cars Previously Class I Tested Using Yard Air or Other Locomotive</p> <p>After locomotive is attached, one of the following procedures must be used:</p> <ul style="list-style-type: none"> • If cars have been off air 4 hours or less and yard air or locomotive pressure setting was 90 psi, then perform Application and Release Test (Class III). • If train has been off air more than 4 hours, perform an Initial Terminal Air Brake Test (Class I) on the entire train. <p>Note: When attaching locomotive to the opposite end of air source, an overcharged condition may occur. To correct condition, comply with Rule 32.5.1 prior to performing air test.</p>
---	--

Rule Updated Date

May 2, 2016

[^Top](#)

30.4: 1,000 Mile Inspection Tests (Class IA Brake Test)

30.4 1,000 Mile Inspection Tests (Class IA Brake Test)

Rule Updated Date

January 20, 2012

[^Top](#)

30.4.1: 1,000 Mile Inspection Tests (Class IA Brake Test)

30.4.1 <i>49 CFR</i> <i>232.207</i> Reference Rule 30.10.1	1,000 Mile Inspection Tests (Class IA Brake Test) At designated locations, comply with procedures outlined by Rule 30.10.1.
---	---

Rule Updated Date

January 20, 2012

[^Top](#)

30.5: Transfer Train Movement Air Test

30.5 Transfer Train Movement Air Test
--

Rule Updated Date

January 20, 2012

[^Top](#)

30.5.1: Transfer Train Movement Air Test

30.5.1	
---------------	--

<p>49 CFR 232.215</p> <p>Reference Rule 30.10.1</p> <p>Glossary</p>	<p>Transfer Train Movement Air Test</p> <p>A train making transfer movements not exceeding 20 miles in one direction is considered a transfer train. Intermediate switching is permitted en route. Comply with the procedures outlined in Rule 30.10.1.</p>
---	--

Rule Updated Date

May 2, 2016

[^Top](#)

30.6: Test When Cutting Off and Recoupling

<p>30.6 Test When Cutting Off and Recoupling</p>

Rule Updated Date

January 20, 2012

[^Top](#)

30.6.1: Test When Cutting Off and Recoupling

<p>30.6.1</p> <p>49 CFR 232.211</p> <p>Reference Rule 30.2.6 30.3.1 30.5.1</p>	<p>Test When Cutting Off and Recoupling</p> <p>Before proceeding when a train is uncoupled and recoupled in 4 hours or less:</p> <ul style="list-style-type: none"> • Restore brake pipe pressure as indicated by gauge or device at the rear end of the train. <p style="text-align: center;">or</p> <ul style="list-style-type: none"> • Verify that the brakes on rear car apply and release from a 20-psi brake pipe reduction. <p>If more than 4 hours, conduct an Initial Terminal Air Brake Test (Class I) or a Transfer Train Movement Air Test - whichever applies to the type of test previously performed on those cars that did not remain charged.</p> <p>Note: On trains designated as Extended Haul, test must be performed by a Qualified Mechanical Inspector.</p>
---	--

Rule Updated Date

May 2, 2016

[^Top](#)

30.7: Application and Release Test (Class III Brake Test)

30.7 Application and Release Test (Class III Brake Test)

Rule Updated Date

January 20, 2012

[^Top](#)

30.7.1: Application and Release Test (Class III Brake Test) Requirements

<p>30.7.1</p> <p><i>49 CFR</i> <i>232.211</i></p> <p>Reference Rule 30.3 30.3.6 30.10.1 33.6</p>	<p>Application and Release Test (Class III Brake Test) Requirements</p> <p>Test must be conducted when:</p> <ul style="list-style-type: none">• Any change is made to a locomotive consist.• A caboose is changed.• Picking up a block of previously tested cars that have not been off air for more than 4 hours.• Helper locomotives are added anywhere in the train or removed from other than the rear end of the train.• One or more consecutive cars are set out of the train.• Defective equipment is set out of train. <p>or</p> <ul style="list-style-type: none">• Rearranging previously tested cars in train for hazardous materials, train make-up, or helper placement. <p>Comply with the procedures outlined in Rule 30.10.1</p>
---	--

Rule Updated Date

January 20, 2012

[^Top](#)

30.8: Inbound Mechanical Inspection

30.8 Inbound Mechanical Inspection

Rule Updated Date

May 2, 2016

[^Top](#)

30.8.1: Inbound Train Inspection

30.8.1	Inbound Mechanical Inspection
Reference Rule 32.1.3	Make a 70-psi brake pipe reduction at terminals where the Mechanical Department will make immediate air brake inspections and repairs after locomotives are detached.

Rule Updated Date

May 2, 2016

[^Top](#)

30.9: Train Information

30.9 Train Information

Rule Updated Date

January 20, 2012

[^Top](#)

30.9.1: Train Information

30.9.1 <i>49 CFR</i> <i>232.211</i>	Train Information A train crew taking charge of a train will be provided a train consist containing the following information: <ul style="list-style-type: none">• Weight and length of the train.• Weight distribution of train, if necessary, for proper train handling.• Information related to car or locomotive defects.• If train air brake test, i.e., Class I or Class IA, is required prior to next crew change point. If a consist is not available or if the consist does not include all of the required information, it may be provided by other means. A written record of the information shall be maintained in the cab of the controlling locomotive.
--	--

Rule Updated Date

May 2, 2016

[^Top](#)

30.10: Air Brake Test and Inspection Charts/49 CFR 232

Rule Updated Date

January 20, 2012

[^Top](#)

30.10.1: Air Brake Test Requirements

Freight Air Brake Tests												
Type of Test	Perform safety inspection on both sides per Rule 1.33	Charge system to at least 75-psi at rear of train as indicated by gauge or device.	Leakage test as required per rule 30.11.2	20-psi brake pipe reduction	Brake application and inspection per rule 30.11.1			Release brakes and check release ¹			Brake pipe pressure being restored as indicated by gauge or device at rear of train	Brake test notification required
					All cars	Car(s) picked up	Rear car ⁵	All cars	Cars(s) picked up	Rear car ⁵		
30.3.1 Class I	X	X	X	X	X			X			X	X
30.3.5 Extended Haul ²	X	X	X	X	X			X			X	X
30.3.1/30.3.5 ² Car added en route	X	X	X	X		X	X		X	X	X	
30.4.1 Class IA		X	X	X	X						X	
30.5.1 Transfer Train ³	X	X		X	X						X ³	
30.6.1 Recoupling											X	
30.7.1 Class III		X	X ⁴	X			X			X	X	

¹Rolling release inspection may be made not exceeding 10 MPH.

²Cars must be inspected by a Qualified Mechanical Inspector.

³Cars added en route must be tested as required by Rule 30.5.1. When cars are set out en route - determine that brake pipe pressure at the rear car has been restored.

⁴Required when cars were previously tested from a Yard Test Plant.

⁵Class III rear car brake requirements are considered fulfilled when brake pipe pressure is decreased by 5 psi and increased by 5 psi per Rule 30.2.6.

Rule Updated Date

May 2, 2016

[^Top](#)

30.11: Air Brake Tests and Inspection Procedures

30.11 Air Brake Tests and Inspection Procedures
--

Rule Updated Date

January 20, 2012

[^Top](#)

30.11.1: Brake Inspection Requirements

30.11.1 <i>49 CFR</i> <i>232.205</i> Reference Rule 1.33	Brake Inspection Requirements Inspect both sides of cars while performing the air brake test to determine that: <ul style="list-style-type: none">• Angle cocks are properly positioned.• Air hoses are in condition for service and properly coupled.• Air brake system leakage is minimal; if necessary, make repairs to reduce leakage.• Retaining valves are in exhaust (EX) position.• Piston travel meets the following requirements:<ul style="list-style-type: none">• Comply with requirements as outlined by stenciling or badge plate.• Truck-mounted brake piston travel must be within the limits of the travel indicator when brakes are applied and provide brake shoe clearance when brakes are released.or• Body-mounted brake requirements:<ul style="list-style-type: none">• Class I air test between 6 and 9 inches when brakes are applied.• Class IA and Transfer Train Test, piston travel must be between 6 and 10 1/2 inches when brakes are applied. When piston travel exceeds 10 1/2 inches it is no longer considered an operative brake.
---	--

	<ul style="list-style-type: none"> • Brakes are applied and remain applied until signal is given to release the brakes. If any car's brakes release prior to signal being given to release the brakes, then that car may be retested once. On retest, the brakes must remain applied for at least 3 minutes. • Brake rigging does not bind or foul. • All parts of the brake equipment are properly secured.
--	---

Rule Updated Date

May 2, 2016

[^Top](#)

30.11.2: Brake Pipe Leakage Test

<p>30.11.2 <i>49 CFR</i> <i>232.205</i></p> <p>Reference Rule 30.10.1 32.9.2</p> <p>Glossary: AFM</p>	<p>Brake Pipe Leakage Test</p> <p>When a leakage test is required per Rule 30.10.1, use one of the following methods:</p> <p>A. Air Flow Method (AFM)</p> <p>To qualify a non-DP train's air brake system, use AFM as follows:</p> <ul style="list-style-type: none"> • The controlling locomotive must be equipped with an AFM indicator with a direct reading of air flow in increments no greater than 10 cubic feet per minute (CFM). • After charging the brake system to at least 75-psi, as indicated by gauge or device at rear of train, air flow must not exceed 60 CFM. If air flow exceeds 60 CFM, then the train must be inspected for leakage. Once the leakage is corrected, the train must be re-tested. <p>B. Brake Pipe Leakage Method</p> <p>If unable to use AFM, conduct a brake pipe leakage test as follows:</p> <ol style="list-style-type: none"> 1. Charge the brake system to at least 75-psi as indicated by gauge or device at rear of train. 2. After the signal is received, reduce brake pipe pressure by 20-psi. 3. After the brake pipe exhaust stops, wait 1 minute. 4. Cut-out the automatic brake valve, and then wait an additional minute for brake pipe pressure to equalize. 5. Time the brake pipe leakage for 1 minute. If the leakage does not exceed 5-psi, then the test is complete. If the leakage exceeds 5-psi, then the train must be inspected; the leakage must be corrected, and the train must be re-tested. 6. After receiving the proper signal, release the brakes.
---	--

	C. Distributed Power Trains
--	------------------------------------

The Distributed Power system's automated brake pipe leakage function must be used when checking leakage on DP trains.

Rule Updated Date

May 2, 2016

[^Top](#)

Union Pacific Rules

Air Brake and Train Handling Rules

31.0: Locomotive Consist Requirements Chapter 31

- [31.0: Locomotive Consist Requirements](#)
- [31.1: Taking Charge of Locomotive Consist](#)
- [31.1.1: Locomotive Safety Devices](#)
- [31.1.2: Electronic Alertness Control Device](#)
- [31.2: Locomotive Inspections](#)
- [31.2.1: Inspection Requirements](#)
- [31.2.2: Complete Required Daily Inspection Forms](#)
- [31.2.3: Event Recorder/Track Image Recorder/Cab Image Camera](#)
- [31.2.4: Speed Indicator](#)
- [31.2.5: Locomotive with Non-complying Condition Safe to Move](#)
- [31.2.6: Defects Other than Non-complying Conditions](#)
- [31.2.7: Major Internal Defects](#)
- [31.3: Locomotive Air Brake Tests](#)
- [31.3.1: Locomotive Air Brake Test Requirements](#)
- [31.4: Standard Air Pressure](#)
- [31.4.1: Standard Locomotive Air Pressures](#)
- [31.5: Dynamic Brake/Locomotive Warnings](#)
- [31.5.1: Dynamic Brakes](#)
- [31.5.2: Dynamic Brake Warning Light](#)
- [31.5.3: Wheel Slip Warning Light](#)
- [31.6: Moving Locomotives](#)
- [31.6.1: Moving Light Locomotive Consists](#)
- [31.6.2: Locomotive Consist Limits](#)
- [31.6.3: Hostling Locomotives](#)
- [31.6.4: Moving Locomotives within Mechanical Department Limits](#)
- [31.6.5: Turntable](#)
- [31.7: Locomotive Placement](#)
- [31.7.1: Locomotive Alignment Control](#)
- [31.8: Locomotive Inspections and Procedures](#)
- [31.8.1: Conducting a Locomotive Daily Inspection](#)
- [31.8.2: Changing Operating Ends Procedure](#)
- [31.8.3: Light Engine Setup](#)
- [31.8.4: Procedure for Conducting a Standing Locomotive Air Brake Test](#)
- [31.8.4.1: Light Engine Running Air Brake Test.](#)

- [31.8.4.2: Remote Control Light Engine Running Air Brake Test](#)
- [31.8.4.3: Electronic Alertness Control Device \(Alerter\) Test](#)
- [31.8.5: Starting Procedure](#)
- [31.8.6: Weak Batteries](#)
- [31.8.7: Locomotive Fuel Conservation and TPA Compliance](#)
- [31.8.7.1: Shutdown Procedure](#)
- [31.8.7.2: Prevent Engine Cooling System from Freezing](#)

31.0: Locomotive Consist Requirements

31.0 Locomotive Consist Requirements

Rule Updated Date

January 20, 2012

[^Top](#)

31.1: Taking Charge of Locomotive Consist

<p>31.1</p> <p><i>49 CFR</i> <i>218.55</i> <i>218.57</i> <i>229.23</i> <i>229.140</i> <i>232.105</i></p> <p>Reference Rule 1.23.1 31.8 35.3.1</p>	<p>Taking Charge of Locomotive Consist</p> <p>Engineers are responsible for the following:</p> <ul style="list-style-type: none"> • Checking that the locomotive daily inspection card is current on the controlling locomotive. • Verify that "Blue Card" is displayed under a transparent cover in the cab of each locomotive. Union Pacific locomotives have an entry at the bottom of the blue card which reads "Do Not Use After mm/dd/yy". Verify that the locomotive has not passed this date. • When locomotive inspection forces are not immediately available, an engineer taking charge of a locomotive must know that the brakes are in operating condition.
--	--

Rule Updated Date

May 2, 2016

[^Top](#)

31.1.1: Locomotive Safety Devices

31.1.1	<p>Locomotive Safety Devices</p> <ul style="list-style-type: none">• Inspect that locomotive safety devices and systems are cut-in and sealed on lead controlling locomotive for the route to be used except:<ul style="list-style-type: none">o When a safety device becomes defective en route.oro During drag loading/unloading operations under 5 MPH. <p>If a safety device becomes defective en route, inform the train dispatcher and Mechanical Department as soon as possible.</p> <p>A safety device may only be cut-out or disabled when authorized by rule or when proper authorization is received. When a locomotive is en route, this authorization may come from the train dispatcher, mechanical supervisor, or other manager.</p> <p>Do not tamper with safety devices.</p>
--------	---

Rule Updated Date

May 2, 2016

[^Top](#)

31.1.2: Electronic Alertness Control Device

31.1.2 <i>49 CFR 229.140</i> Reference Rule 31.8.4.3	<p>Electronic Alertness Control Device</p> <p>When the controlling locomotive on the lead consist is equipped with an Electronic Alertness Control Device (alerter), the device must be tested per Rule 31.8.4.3 prior to departure from a train's initial terminal, or when the controlling locomotive is changed en route.</p> <p>If a penalty brake application does not occur, the locomotive must not be used as a controlling locomotive.</p>
--	--

	<p>Note: Does not apply to Commuter Trains and Yard Switching Operations.</p>
--	---

Rule Updated Date

May 2, 2016

[^Top](#)

31.2: Locomotive Inspections

<p>31.2 Locomotive Inspections</p>

Rule Updated Date

January 20, 2012

[^Top](#)

31.2.1: Inspection Requirements

<p>31.2.1</p>	<p>Inspection Requirements</p> <p>The engineer is responsible for ensuring that each locomotive in his charge, including locomotive(s) picked up en route, is inspected each day the locomotive is in service. Determine if the locomotive needs to be inspected by checking the locomotive daily inspection card in each locomotive cab. The card will indicate the date and time of the last daily inspection.</p> <p>Exception: On a multiple-locomotive consist, the engineer may assume that all trailing locomotives in the consist and any distributed power locomotives in the train were inspected on the same date as the locomotive daily inspection card on the controlling locomotive.</p> <p>A. Inspected Previous Calendar Day</p> <p>If the locomotive daily inspection card indicates that the locomotive was inspected the previous calendar day, complete the current daily inspection before the end of the tour of duty. The engineer may be relieved from requirements to perform a daily inspection when instructions provide for mechanical forces to make the inspection.</p> <p>Ensure that the Electronic Locomotive Inspection Report is completed.</p> <p>Inspection should be performed during daylight hours when possible.</p>
----------------------	---

	<p>B. Not Inspected Previous Calendar Day</p> <p>If the locomotive daily inspection card indicates that the locomotive was not inspected during the previous day, or if there is no record on the locomotive, inspect the locomotive before it is placed into service on the current day.</p> <p>C. Locomotive Picked Up En Route</p> <p>When picking up a locomotive on line, the engineer must determine which locomotives will require a daily inspection. No locomotive in resulting consist may have a date older than the lead controlling locomotive.</p> <p>D. Locomotive Set Out on Line</p> <p>When setting out a locomotive on line that last inspected on the previous calendar day, inspect the locomotive, unless notified that the locomotive will be inspected by the Mechanical Department.</p>
--	---

Rule Updated Date

May 2, 2016

[^Top](#)

31.2.2: Complete Required Daily Inspection Forms

<p>31.2.2</p> <p><i>49 CFR</i></p> <p><i>229.21</i></p>	<p>Complete Required Daily Inspection Forms</p> <p>Locomotive Inspection Report</p> <p>Complete an Electronic Locomotive Inspection Report for each locomotive inspected.</p> <p>Locomotive Daily Inspection Card</p> <p>The locomotive daily inspection card must include the following information:</p> <ul style="list-style-type: none"> • Date. • Location. • Time. • Complying or non-complying (check appropriate box). • Union Pacific employee number of the inspector. Legible signatures may be used by other than Union Pacific employees. <p>The locomotive daily inspection card must remain in the holder in the locomotive cab.</p>
--	---

Rule Updated Date

May 2, 2016

[^Top](#)

31.2.3: Event Recorder/Track Image Recorder/Cab Image Camera

31.2.3	Event Recorder/Track Image Recorder/Cab Image Camera Only authorized personnel may remove the recorder data pack or download recorder data.
--------	---

Rule Updated Date

May 2, 2016

[^Top](#)

31.2.4: Speed Indicator

31.2.4 <i>49 CFR</i> <i>229.117</i> Reference Rule 31.8.1	Speed Indicator A. Speed Indicator Test The engineer must test the speed indicator of the controlling locomotive using identified test miles or mile posts as soon as possible after departure. B. Operative Speed Indicator A locomotive used as a controlling unit at speeds above 20 MPH must be equipped with an operative speed indicator. Speed indicator requirements: Locomotive speed indicators must be accurate within: <ul style="list-style-type: none">○ ±3 MPH at speeds between 10 and 30 MPH.○ ±5 MPH at speeds above 30 MPH. Note: A speed indicator that exceeds either of the above tolerances must be handled as a non-complying condition found en route. C. Speed Indicator Fails En Route If a speed indicator on a controlling locomotive fails en route, the locomotive may continue as a controlling locomotive at normal track speed only to the next facility where repairs can be made or until the locomotive is due a daily inspection, whichever occurs first. Movement beyond a facility where repairs can be made or location where daily inspection was conducted must not exceed 20 MPH.
---	--

Rule Updated Date

May 2, 2016

[^Top](#)

31.2.5: Locomotive with Non-complying Condition Safe to Move

<p>31.2.5</p> <p><i>CFR</i> 229.9</p> <p>Reference Rule 31.8</p>	<p>Locomotive with Non-complying Condition Safe to Move</p> <p>A. During the locomotive daily inspection, if a non-complying condition is discovered, it may be moved only:</p> <ul style="list-style-type: none">• As a single locomotive under power not attached to cars.• In a locomotive consist not attached to cars.• If isolated or shut down when attached to cars. <p>Exceptions:</p> <ul style="list-style-type: none">• A controlling locomotive found with defective speed indicator during daily inspection may be operated under power attached to cars not exceeding 20 MPH.• Locomotives found with any of the following defects during the daily inspection may be operated under power attached to cars as a trailing locomotive:<ul style="list-style-type: none">• Both headlights are inoperative.• Both ditch lights are inoperative.• Inoperative horn or bell.• Defective speed indicator.• Window cracks that obscure view.• Cab seats not properly secured.• Inoperative automatic or independent brake controls.• Inoperative electronic alertness control device. <p>Prior to moving a non-complying locomotive, perform the following:</p> <ol style="list-style-type: none">1. Complete a non-complying locomotive tag, and attach it to the isolation switch of the non-complying locomotive. The tag must include the following information:<ul style="list-style-type: none">• "Non-complying locomotive" written on the tag.• Locomotive initials and number.• Name of the inspecting railroad.• Inspection location and date.• Nature of the defect.• Movement restrictions, if any.• Destination.
---	---

	<ul style="list-style-type: none"> • Signature of the employee making the inspection. <ol style="list-style-type: none"> 2. Secure a copy of the non-complying tag on the control stand of the controlling locomotive. 3. Make sure the engineer in charge of the locomotive movement receives written notification of the non-complying locomotive (A copy of a non-complying locomotive tag meets this requirement.). The engineer must inform all other crew members of the non-complying unit and of any restrictions. 4. Notify the train dispatcher/Mechanical Help Desk, yardmaster, or other proper authority. <p>However, a locomotive may be moved as a single or dead unit within a yard solely for repairs, not to exceed 10 MPH, without complying with Items 1, 2, and 3 listed above.</p> <p>B. Non-complying Condition Found En Route</p> <p>A locomotive that develops a non-complying condition en route may continue operating if the engineer or other qualified employee determines the locomotive is safe to move. The locomotive may be operated at normal speed until the next daily inspection or until it reaches the nearest point where repairs can be made, whichever occurs first.</p> <p>The engineer must:</p> <ul style="list-style-type: none"> • Apply a non-complying tag to the isolation switch on the non-complying locomotive and the controlling locomotive. • Report non-complying conditions to the train dispatcher/Mechanical Help Desk as soon as possible. • Notify the relieving engineer of any non-complying conditions when possible. • Report any non-complying conditions on the Electronic Locomotive Inspection Report.
--	---

Rule Updated Date

May 2, 2016

[^Top](#)

31.2.6: Defects Other than Non-complying Conditions

31.2.6	<p>Defects Other than Non-complying Conditions</p> <p>Report all defects through the Electronic Locomotive Inspection Report for each locomotive in the consist. A locomotive that is not loading properly must be reported to the Dispatcher/Mechanical Help Desk.</p> <p>Examples of a defect or problem that is not a non-complying condition include:</p>
---------------	--

	<ul style="list-style-type: none"> • Weather stripping is defective. • Windshield wipers are not working. • One headlight bulb is burned out. • Ground relay is tripped. • Safety valve on the air compressor or main reservoir is popping off.
--	--

Rule Updated Date

January 20, 2012

[^Top](#)

31.2.7: Major Internal Defects

31.2.7	<p>Major Internal Defects</p> <p>If a locomotive has a major internal defect, shut down the engine and do not restart until inspected by mechanical forces.</p> <p>Report condition to Dispatcher/Mechanical Help Desk, and fill out a "Non-Complying Locomotive" tag. Attach the tag near the engine starting control.</p> <p>If instructed to set out locomotive, leave the locomotive where mechanical personnel can access it, when possible.</p>
---------------	--

Rule Updated Date

January 20, 2012

[^Top](#)

31.3: Locomotive Air Brake Tests

31.3 Locomotive Air Brake Tests
--

Rule Updated Date

January 20, 2012

[^Top](#)

31.3.1: Locomotive Air Brake Test Requirements

31.3.1	<p>Locomotive Air Brake Test Requirements</p> <p>Conduct a locomotive air brake test when:</p>
---------------	---

<p><i>CFR</i> 229.13</p> <p>Reference Rule 31.8.2 31.8.4 31.8.4.1</p>	<ul style="list-style-type: none"> • Making up a locomotive consist. • Adding locomotive to a consist. • Other than rear locomotive is removed from consist. • Locomotive consist is rearranged. <li style="padding-left: 20px;">or • Changing operating ends of a consist.
---	---

Rule Updated Date

May 2, 2016

[^Top](#)

31.4: Standard Air Pressure

31.4 Standard Air Pressure

Rule Updated Date

January 20, 2012

[^Top](#)

31.4.1: Standard Locomotive Air Pressures

31.4.1	<p>Standard Locomotive Air Pressures</p> <p>Before initiating movement, ensure that air pressures are as follows:</p> <ul style="list-style-type: none"> • Main reservoir pressure is 120 to 140-psi. • Locomotive brake cylinder pressure must be adjusted to pressure indicated on badge plate. <p>Note: Foreign line locomotives may require different main reservoir and brake cylinder pressures.</p>
--------	--

Rule Updated Date

January 20, 2012

[^Top](#)

31.5: Dynamic Brake/Locomotive Warnings

31.5 Dynamic Brake/Locomotive Warnings

Rule Updated Date

January 20, 2012

[^Top](#)

31.5.1: Dynamic Brakes

<p>31.5.1</p> <p>49 CFR 232.109</p> <p>Reference Rule 31.8.1</p>	<p>Dynamic Brakes</p> <p>A. Controlling Dynamic Brake On train movements equipped with operative dynamic brakes, the lead controlling locomotive must have:</p> <ul style="list-style-type: none">• An operative dynamic brake.or• The ability to control the operative dynamic brakes of trailing locomotives in a consist and an operative accelerometer that displays current change in speed or predicted change in speed in miles per hour per minute. <p>Note: The above requirement would not apply to low-speed yard, local, and transfer movements on level or light grade.</p> <p>B. Controlling Dynamic Brake – En Route Failure May continue operating as the lead locomotive if:</p> <ul style="list-style-type: none">• The engineer or other qualified employee determines the train is safe to move.• The train may then be operated at normal speed until:<ul style="list-style-type: none">• The train reaches the nearest repair point.or• The lead locomotive can be replaced. <p>C. Locomotives with Inoperative Dynamic Brakes Inoperative dynamic brake:</p> <ul style="list-style-type: none">• Must be individually tagged, and an additional defect tag must be left on the controlling locomotive as information to the locomotive engineer.• Information may be shown on train consist. <p>Tag indicating inoperative dynamic brakes should include the following information:</p>
---	---

	<ul style="list-style-type: none"> • Locomotive number. • Name of discovering railroad. • Location and date condition discovered. • Signature of person discovering the condition. <p>Dynamic brakes cut-out to comply with dynamic brake axle limitations are not considered inoperative brakes.</p>
--	---

Rule Updated Date

May 2, 2016

[^Top](#)

31.5.2: Dynamic Brake Warning Light

<p>31.5.2 <i>49 CFR</i> <i>229.115</i></p>	<p>Dynamic Brake Warning Light</p> <p>If the Dynamic Brake Warning Light illuminates, reduce the dynamic brake until the light goes out. If condition continues, cut-out the dynamic brake on defective unit.</p>
---	--

Rule Updated Date

January 20, 2012

[^Top](#)

31.5.3: Wheel Slip Warning Light

<p>31.5.3 <i>49 CFR</i> <i>229.115</i></p>	<p>Wheel Slip Warning Light</p> <p>If the wheel slip light is illuminated, reduce power or dynamic brake until the light goes out. If light does not go out:</p> <ul style="list-style-type: none"> • Ensure that wheels are rotating freely. • If wheels rotate freely and wheel slip light remains on during throttle reduction, isolate affected locomotive. • If the wheels do not rotate freely, notify the dispatcher and set out the locomotive. <p>WARNING: A wheel slip light continuously illuminated for 6–8 seconds or longer at speeds above 15 MPH may indicate a locked wheel or a slipped pinion gear. Should this occur, stop and determine that all wheels rotate freely.</p>
---	--

Rule Updated Date

January 20, 2012

[^Top](#)

31.6: Moving Locomotives

31.6 Moving Locomotives

Rule Updated Date

January 20, 2012

[^Top](#)

31.6.1: Moving Light Locomotive Consists

<p>31.6.1</p> <p>Reference Rule SSI Item 2-A</p>	<p>Moving Light Locomotive Consists</p> <p>Operate a light locomotive consist from the cab nearest the direction of travel when any one of the following conditions exists:</p> <ul style="list-style-type: none">• Distance to be traveled exceeds 2 miles.• A member of the same crew does not control movement using hand signals or radio. or• Visibility is impaired. <p>Exceptions: This may not be required when it is necessary to maintain a DP link when moving a locomotive to train or when other operating conditions prevent occupying the cab nearest the direction of travel.</p>
---	---

Rule Updated Date

May 2, 2016

[^Top](#)

31.6.2: Locomotive Consist Limits

<p>31.6.2</p> <p>Reference Rule 31.8.3</p>	<p>Locomotive Consist Limits</p> <p>Limit freight trains to eight locomotives on the lead consist. The maximum of eight locomotives includes units that are:</p> <ul style="list-style-type: none">• Working.
---	--

	<ul style="list-style-type: none"> • Isolated. • Dead-in-consist. <li style="padding-left: 20px;">or • Dead-in-train immediately behind the locomotive consist. <p>Train management may authorize up to 10 locomotives in the lead consist on freight trains but must not exceed power axle or dynamic brake limitations.</p> <p>The eight locomotive limit does not apply to power transfers. Limit power transfers to a maximum of 25 locomotives.</p>
--	--

Rule Updated Date

May 2, 2016

[^Top](#)

31.6.3: Hostling Locomotives

<p>31.6.3</p>	<p>Hostling Locomotives</p> <p>Do not move or switch more than eight coupled locomotives within locomotive servicing facilities unless authorized by mechanical department. This includes movements between service tracks and train yards.</p> <p>Multiple locomotive consists may be moved within a terminal area with only the brake pipe connected, provided the speed does not exceed 10 MPH.</p> <p>Perform the following inspection and test before the initial movement of locomotives coupled together and whenever locomotives are added or the controlling locomotive is changed:</p> <ol style="list-style-type: none"> 1. Brake pipe is connected and angle cocks are open between each locomotive. 2. Automatic brake valve must be cut-out on all locomotives coupled together except the controlling locomotive. 3. Independent brake valve must be cut-in on the lead unit on each consist and handle in release. 4. Allow brake pipe to charge. 5. Perform a standing brake test as follows: <ol style="list-style-type: none"> a. Make a 10-psi service brake application.
----------------------	---

b.

	<p>Ensure that sufficient locomotive brakes apply for safe movement.</p> <p>Note: Brakes may not apply on locomotives that are shut down unless the dead engine feature is cut-in.</p> <p>c. Release the automatic brake application.</p> <p>d. Ensure brakes release on each locomotive.</p> <p>6. Release all hand brakes.</p>
--	---

Rule Updated Date

May 2, 2016

[^Top](#)

31.6.4: Moving Locomotives within Mechanical Department Limits

<p>31.6.4</p>	<p>Moving Locomotives within Mechanical Department Limits</p> <p>When moving locomotives within Mechanical Department limits:</p> <ol style="list-style-type: none"> 1. Charge and properly position brake equipment before moving the controlling locomotive. 2. On controlling locomotive, apply and release locomotive brakes to verify that brake cylinder pistons are operating and brake cylinder lines to trucks are not cut-out.
---------------	---

Rule Updated Date

January 20, 2012

[^Top](#)

31.6.5: Turntable

<p>31.6.5</p>	<p>Turntable</p> <p>Do not move on or off a turntable unless correctly lined and locked.</p>
---------------	---

Rule Updated Date

January 20, 2012

[^Top](#)

31.7: Locomotive Placement

31.7 Locomotive Placement

Rule Updated Date

January 20, 2012

[^Top](#)

31.7.1: Locomotive Alignment Control

31.7.1	Locomotive Alignment Control	
LOCOMOTIVE PLACEMENT TABLE		
	Locomotives Equipped for MU	Locomotives Not Equipped for MU.
UPRR and Foreign Line/Waybilled Locomotives with Alignment Control	When running, they may be placed anywhere in consist. If shutdown or isolated, place behind lead consist and MU.	Couple directly behind lead consist and set-up by Mechanical Department. (Dead Engine Feature)
UPRR Locomotive without Alignment Control	When consist has locomotives with alignment control, they must be placed second in consist, one per train when handling cars.	Shut down and place between the tenth and fifth cars from rear of train. If two locomotives are handled in one train, they must be separated by one car. No more than two may be entrained. Entrained locomotives must be set-up by Mechanical Department. (Dead Engine Feature)
	When consist has no locomotives with alignment control, up to three non-alignment control locomotives may be placed on head end when handling cars.	
	On light locomotive consist, up to five locomotives may be handled on rear of consist.	
Foreign Line/Waybilled Locomotives	Special Train Move only (light locomotive consist)	

without Alignment Control	
------------------------------	--

Rule Updated Date

May 2, 2016

[^Top](#)

31.8: Locomotive Inspections and Procedures

31.8 Locomotive Inspections and Procedures

Rule Updated Date

January 20, 2012

[^Top](#)

31.8.1: Conducting a Locomotive Daily Inspection

<p>31.8.1 <i>49 CFR</i> <i>229.21</i> <i>229.53</i> <i>232.105</i> <i>236.553</i></p>	<p>Conducting a Locomotive Daily Inspection Inspect these three general areas of each locomotive:</p> <ul style="list-style-type: none"> • Control Compartment/Locomotive Cab. • Walkways and Engine Compartments. • Ground Level. <p>Note: B-units and other units designated or modified not to be occupied are not required to have or be equipped with all the devices included in the inspection.</p> <p>Remote control locomotives (RCL) must be in manual mode when conducting inspection.</p> <p>The following items are non-complying conditions if they do not function properly during the daily inspection. (Not all defects are non-complying conditions.)</p>
--	--

A. Control Compartment/Locomotive Cab

Operate sanders to deposit sand in front of each locomotive's lead wheels using the reverser position to determine the direction.

On each locomotive ensure that:

- Each air gauge registers within 3-psi of the required pressure.
- Locomotive cab is free of stumbling or slipping hazards.
- No traction motors have been cut-out. However, on GE AC, GE-8 DC, GE-9 DC, and EMD AC locomotives, one or more traction motors/trucks may be cut-out and not considered a non-complying condition.
- Cab seats are properly secured.
- Dynamic brakes are operative on equipped locomotives. A locomotive will be considered as having a non-complying condition if the dynamic brake has been defective for 30 continuous days.

On lead locomotive ensure that:

- At least one headlight bulb is operational on each end of the locomotive consist.
- At the initial terminal, both ditch lights are operational. At least one ditch light must be operational at other than initial terminal.
- Horn and bell operate.
- Gauge lights and engineer's overhead cab light illuminate. If burned out and other available lighting is sufficient to allow visibility from the crew's normal position, report as a defect but not a non-complying condition.
- Speed indicator functions accurately. After a daily inspection, if the speed indicator failure is identified on the lead locomotive as soon as it begins moving, the failure is a non-complying condition discovered during the daily inspection.
- Windows provide a clear view. Small cracks that do not obscure view must be reported as defects but not non-complying conditions.
- The locomotive toilet facility is sanitary and operational.
- Only a telemetry head end unit (HEU) calibrated within the last 368 days may be used.

Exception: Calibration is not required on the Wabtec HEU with the sticker reading, "This unit is equipped with a Wabtec synthesized radio that complies with FRA-2004-18895."

B. Walkway and Engine Compartment

Inspect both sides of each locomotive to ensure that:

- Walkways and walk-in compartments (car body-type locomotives) are clear of debris, tools, and accumulated oil or grease that present a hazard to the crew.

- Handrails, hand holds, steps, ladders, safety chains, and guards are secured and ready for service. Inspect for broken, bent, damaged, or loose equipment. Make sure safety chains are connected high enough for safe passage. The chain droop must not exceed 8 inches from the grab iron connection to top of chain.
- All electrical and rotating equipment guards are in place.
- The diesel engine has no apparent exhaust, oil, water, or fuel leaks.
- The hand brake is operational.
- Walkway and engine compartment lights are working. If burned out and other available lighting is sufficient to allow visibility, report as a defect but not a non-complying condition.

C. Ground Level

Inspect the exposed areas for apparent defects, but do not crawl under or between locomotives to make the visual inspection. Set hand brakes, if necessary, and walk around both sides of the locomotive to ensure that:

- Sand is deposited on the rail in front of the lead wheels of each locomotive in the consist.

Exceptions:

- In road service as lead locomotive, if sanders are found to be defective en route, the locomotive may continue in service until it is placed in a repair facility but under no conditions for more than 14 calendar days.
- In road service as a trailing locomotive, if sanders are found to be defective en route, the locomotive may continue in service until it is placed in a repair facility.
- In switching service, if sanders are found to be defective at a location where repair facilities are not available, the locomotive may remain in service for no more than 7 calendar days.
- Fuel tank is not leaking.
- No defects such as cracks and broken or missing parts are on the following:
 - Locomotive trucks.
 - Wheels.
 - Gear cases.
 - Draft gears.
- Brake cylinder piston travel is sufficient to provide brake shoe clearance when the brakes are released.
- Maximum brake cylinder piston travel is 1 1/2 inches less than the travel entered on FRA Form F 6180-49A (blue card) in the locomotive cab.
- Brake shoes are secured and approximately in line with the tread of the wheel with no obvious lips or overhangs.
- Foundation brake rigging is secured, and all components other than wheels and sand hoses are at least 2 1/2 inches above the top of the rail.
- Snowplow, pilot, or endplate is properly secured and is between 3 inches and 6 inches above the top of the rail.

	<ul style="list-style-type: none"> • No part of the electrical cable is lying on the coupler. • Unused electrical cables are stowed, or the disconnected ends are placed into a dummy receptacle or a multiple-unit cable holder. • There is no apparent physical damage to the ATC/ACS receiver bars on locomotives equipped with ATC/ACS. <ul style="list-style-type: none"> • These bars are located above the rail and in front of the wheels. This requirement applies only to lead locomotives on trains operating in ATC/ACS territory. Any apparent damage must be reported, but it does not constitute a non-complying defect.
--	--

Rule Updated Date

May 2, 2016

[^Top](#)

31.8.2: Changing Operating Ends Procedure

<p>31.8.2</p> <p>Reference Rule 31.8.4.1</p>	<p>Changing Operating Ends Procedure</p> <p>Change operating ends on a locomotive consist by cutting out the operating controls on the controlling end and proceeding immediately to the opposite end of the locomotive consist and restore controls.</p> <p>A. Cut-Out Operating Controls as follows:</p> <ol style="list-style-type: none"> 1. Fully apply the independent brake. 2. Make a 20-psi brake pipe reduction. 3. Remove the reverser. 4. Apply sufficient hand brakes to hold locomotive consist. Cut-out the independent and automatic brakes. (On electronic brake systems, toggle independent setting from LEAD to TRAIL, and accept and confirm the change. This will also place the automatic brake in the cutout position.) 5. Place the automatic brake valve handle in HANDLE OFF/CONTINUOUS SERVICE. 6. Place independent brake valve handle in release position. 7. Place the generator field switch in the OFF position. 8. Disarm two-way EOT, if equipped. (DP must be unlinked to change ends.) 9. Position headlight switch as necessary. <p>B. Restore Operating Controls as follows:</p> <ol style="list-style-type: none"> 1. Place the independent brake valve handle in FULL APPLICATION. 2. Cut-in the independent brake. (On electronic systems, toggle setting from TRAIL to LEAD.) 3. Place the automatic brake valve handle in RELEASE. 4. Cut-in the automatic brake. (On electronic systems, toggle setting from CUT OUT to CUT IN.)
---	--

	<p>5. Replace the reverse lever.</p> <p>6. Place switches and breakers in proper positions.</p> <p>7. Conduct locomotive air brake test.</p> <p>Application: After changing operating ends, perform a Light Engine Running Air Brake Test.</p> <p>Note: A Standing Locomotive Air Brake Test may be performed when the Light Engine Running Air Brake Test is not practical .</p>
--	--

Rule Updated Date

May 2, 2016

[^Top](#)

31.8.3: Light Engine Setup

31.8.3 <i>49 CFR</i> <i>232.205</i>	Light Engine Setup When light engine power transfers are operated, set-up as shown below:				
Light Engine Power/Dynamic Brake Setup					
Number of Units	Minimum MU'd	Minimum on line for power and dynamic brake	Armed EOT Required	MU Cable Required between units.	Headlight
1–8	All	2 units minimum with 3 or more units	No	All units MU'd *	Lead/Rear on Dim or Highly Visible Marker
9–12	8	4	Yes	Must not be placed between eighth and ninth units.	EOT on rear
13–15		5			
16–18		6			
19–21		7			
22–25		8			

Light Engine Air Brake Setup					
Number of Units	Train Line Hose	Automatic Brake Cut-in	Independent Brake Cut-in	MU Hoses	Air Test Required
1-8	All	Lead Only	Lead Only	All	31.8.4
9-25			Cut-in and Released		Locomotive must be running or main reservoir must be connected to running locomotive.

Light engine movements must not be operated in DP mode except when moving power consists from the service track to a yard track. Site-specific instructions may be created to govern movement of light engine moves within the terminal limits.

* MU cable not required between units shut down or isolated at rear of consist.

Rule Updated Date

May 2, 2016

[^Top](#)

31.8.4: Procedure for Conducting a Standing Locomotive Air Brake Test

31.8.4	
--------	--

	<ol style="list-style-type: none"> 2. Close throttle. Locomotive should roll freely. If it does not, check for the cause and correct. 3. Apply and release the independent brake while speed is low. A speed reduction indicates brakes have applied. 4. With the independent brake released, make a light automatic brake pipe pressure reduction. A speed reduction indicates brakes have applied. 5. Actuate and determine that the brakes release. The locomotive should roll freely. <p>When defects or malfunctions are noted, the condition must be corrected.</p> <p>Note: A Standing Locomotive Air Brake Test may be performed when the Light Engine Running Air Brake Test is not practical.</p>
--	---

Rule Updated Date

May 2, 2016

[^Top](#)

31.8.4.2: Remote Control Light Engine Running Air Brake Test

<p>31.8.4.2</p> <p><i>49 CFR</i> <i>232.105</i></p>	<p>Remote Control Light Engine Running Air Brake Test</p> <p>Unless relieving prior crew and the transmitter(s) are given directly to the relieving crew, a remote control operator must perform this air test when:</p> <ul style="list-style-type: none"> • Taking charge of an unlinked remote control engine. or • Controlling ends have been changed on a remote control consist. <p>When test is required, perform the following tasks:</p> <ol style="list-style-type: none"> 1. Select direction on the RCT, press either vigilance button then position Speed Selector to Couple Setting to cause locomotive to move. 2. Move Speed Selector to Coast. Locomotive should roll freely. If it does not, check for the cause and correct. 3. Increase speed by positioning Speed Selector to a speed greater than couple, then move Speed Selector to Coast. 4. Apply a low setting with the Independent Brake Override. A speed reduction indicates brakes have applied. 5. Release Independent Brake Override. With Speed Selector in Coast (increase speed first if locomotive has stopped), apply a minimum automatic brake application. Verify that brakes do not apply.
--	--

	<p>6. Increase automatic brake application to Light Setting and verify that brakes do not apply.</p> <p>7. Increase automatic brake application to Medium Setting. A speed reduction indicates brakes have applied. Position Automatic Brake Selector to Release Setting. Locomotive should roll freely.</p> <p>When defects or malfunctions are noted, the condition must be corrected.</p> <p>A Standing Locomotive Air Brake Test may be performed when the Remote Control Light Engine Running Air Brake Test is not practical.</p>
--	---

Rule Updated Date

May 2, 2016

[^Top](#)

31.8.4.3: Electronic Alertness Control Device (Alerter) Test

<p>31.8.4.3</p> <p><i>49 CFR 229.140</i></p>	<p>Electronic Alertness Control Device (Alerter) Test</p> <p>Procedure for conducting alerter test:</p> <ol style="list-style-type: none"> 1. Place the automatic and independent brakes in release. 2. Allow the timing cycle to expire and observe that warning lights and audible alarm function. 3. Allow the alerter to "time out" and observe: <ul style="list-style-type: none"> • PC or PCS indicator light illuminate. • Reduction in equalizing reservoir pressure. 4. Recover penalty brake application.
---	---

Rule Updated Date

May 2, 2016

[^Top](#)

31.8.5: Starting Procedure

31.8.5	<p>Starting Procedure</p> <p>Follow this procedure to start a locomotive:</p> <ol style="list-style-type: none">1. Check the cooling water level.2. Check that the governor low oil button, over-speed trip, and low water and crankcase protective devices are in the proper positions, if equipped.3. Check that switches or breakers for air conditioning, lights, heaters, refrigerator, and other accessories are in the OFF positions.4. Ensure that the fuel pump circuit breaker is on.5. Check that the engine run and control switches on the engineer's control console are on.6. Make sure the Isolation Switch is in the START/STOP/ISOLATE position.7. Close the main battery switch.8. Prime the engine as indicated on the badge plate.9. Crank the engine until the engine starts, but not longer than 20 seconds for EMD locomotives and 45 seconds for GE locomotives. Allow two minutes between cranking attempts.10. After starting, place switches or breakers for air conditioning, lights, heaters, refrigerator, and other accessories in the ON positions, as appropriate.11. Check that the air brake system is charged and operative before releasing the hand brake.
---------------	--

Rule Updated Date

May 2, 2016

[^Top](#)

31.8.6: Weak Batteries

31.8.6	<p>Weak Batteries</p> <p>When a weak battery condition is determined by the Mechanical Department, do the following:</p> <ul style="list-style-type: none">• Tag locomotives with weak batteries to prevent shutdown until the condition is corrected.• Report the condition on Electronic Locomotive Inspection report.• Report to the Locomotive Help Desk if discovered en route. <p>Locomotives identified with such tags or other identified mechanical problems that would prevent starting where repair facilities are not available may be left running for no more than seven calendar days.</p>
---------------	--

Rule Updated Date

May 2, 2016

[^Top](#)

31.8.7: Locomotive Fuel Conservation and TPA Compliance

<p>31.8.7</p> <p>Reference Rule SSI Item 5-C Glossary</p>	<p>Locomotive Fuel Conservation and TPA Compliance</p> <p>A. Locomotive Shutdown Shut down locomotive when:</p> <ul style="list-style-type: none">• Left standing unattended for 15 minutes or longer.• The trailing locomotive(s) in lead consist are isolated. <p>Locomotive should be left running when:</p> <ul style="list-style-type: none">• The temperature is expected to drop below 35 degrees F in the next 12 hours.• Necessary to maintain the air supply; one locomotive may be left running.• Distributed power locomotives are actively linked. <p>B. Fuel Conservation Trains are subject to the Fuel Conservation Speed (FCS) requirements below:</p> <ul style="list-style-type: none">• FCS Train Operations: Exceeding throttle position 5 while in power is prohibited at a speed greater than specified below. <table border="1"><thead><tr><th colspan="4">Fuel Conservation Speed</th></tr></thead><tbody><tr><td>Train Type:</td><td>Coal Trains (loaded or empty)</td><td>Freight Trains (including light engine movements)</td><td>Passenger and Business Car trains are exempt. Freight trains that are exempted by track bulletin.</td></tr><tr><td>Speed:</td><td>40</td><td>50</td><td>No FCS Restrictions</td></tr></tbody></table> <p>Coal trains may be authorized to operate at FCS 50 by timetable or subdivision general order.</p> <p>Higher throttle positions may be used, up to and including run 8, to achieve and maintain FCS-authorized speed.</p> <p>The train dispatcher may cancel fuel conservation speed restrictions.</p> <p>C. Tons Per Powered Axle (TPA) Trains must be operated as required by TPA limits for the current crew district as indicated on the train list (BC), and not to exceed</p>	Fuel Conservation Speed				Train Type:	Coal Trains (loaded or empty)	Freight Trains (including light engine movements)	Passenger and Business Car trains are exempt. Freight trains that are exempted by track bulletin.	Speed:	40	50	No FCS Restrictions
Fuel Conservation Speed													
Train Type:	Coal Trains (loaded or empty)	Freight Trains (including light engine movements)	Passenger and Business Car trains are exempt. Freight trains that are exempted by track bulletin.										
Speed:	40	50	No FCS Restrictions										

those limits. Non-working status codes (DG, DB, PD, IB) are assigned to locomotive units which are not to be used for power, in order to comply with TPA limits and maximize fuel efficiency. Locomotives with non-working status codes on the BC must always be either isolated or shut down, depending on ambient air temperature, and according to the instructions in Part A of this rule.

When train list (BC) recommendations for locomotive shutdown/isolation are not indicated, or train tonnage is changed significantly en route, crews operating freight trains including local and transfer train movements must::

1. Determine the minimum total EPA needed for route using the following formula:

$$\text{Train Tonnage} \div \text{TPA Limit (as indicated on BC)} = \text{Total EPA needed.}$$

2. Determine the minimum number of locomotive(s) which are needed to handle train tonnage without exceeding the train TPA limit.

3. Verify correct EPA is online for route by recalculating TPA:

$$\text{Total Train Tonnage (including Isolated/DIC locomotives)} \div \text{Total EPA} = \text{TPA}$$

4. Confirm TPA does not exceed route TPA.

5. Start or shutdown/isolate locomotives and tag as required.

Each head-end locomotive isolated or shut down for fuel conservation purposes must be identified by placing a fuel conservation tag on the isolation switch. The lead unit must also be tagged identifying all of the locomotives in the head-end consist that are isolated or dead. Any changes made must be noted on the lead unit's tag.

At each crew change point, inbound engineers must communicate the configuration of their head-end locomotive consist to the relieving crew, either in person or by using appropriate tags attached to isolation switches. If unable to ascertain in person from an inbound engineer if the head-end locomotives are set up according to the BC, the outbound engineer must first examine any tags attached to the isolation switch on the lead unit, and then compare that information with the BC train list for their crew district.

Adjustments to the head-end consist configuration must only be made as necessary to ensure compliance with locomotive status codes and crew district TPA limits.

If it is necessary to go through the locomotives in order to release handbrakes, the engineer must verify that the correct units are running and on line at that time.

Locomotive axles / traction motors must not be cut-out to comply with TPA restrictions. Additional locomotive(s) may be on line if the engineer determines that the train may stall due to locomotive defects, not to exceed system or subdivision maximum powered axle limitations. DG units that are used for power must be reported using the locomotive inspection reporting process at tie-up.

The controlling unit of each consist, including DP consist(s), must not be manually isolated or shut down to comply with these instructions. This does not prohibit the isolation or shutdown of other units in remote consists.

Note: When calculating TPA/TPDBA, do not round off EPA/EDBA numbers used in making the calculation. After completing the calculation, if the final number is not a whole number, round up the result to the nearest whole number.

Example: A train has 10,469 tons and three locomotives with a total of 36.3 EPA. The detail train consist indicates the following TPA limit:

MAXIMUM TPA BETWEEN SX263 AND NX039 IS 430, CURRENT TPA IS 289. If one unit was isolated weighing 200 tons, the train would then have 24.2 EPA, and TPA will increase to 441. This exceeds the maximum TPA for the territory to be operated over. Therefore, all three locomotives must be left on line.

D. Energy Management Systems (EMS)

When the controlling locomotive on a train is equipped with an EMS, the engineer must initialize the system and utilize it to the fullest extent possible during the entire trip, consistent with safe train operations. The engineer must logout of the EMS at end of trip except for Smart Consist.

Any EMS initializing or en route failure must be promptly reported to the Mechanical Help desk and an EMS Feedback Form completed and submitted by the assigned engineer.

Superintendent bulletins will designate EMS type, location and class of train allowed to be operated with the system.

Rule Updated Date

May 2, 2016

[^Top](#)

31.8.7.1: Shutdown Procedure

<p>31.8.7.1</p> <p>Reference Rule 35.5.1</p>	<p>Shutdown Procedure</p> <p>Follow this procedure to shut down a locomotive:</p> <ol style="list-style-type: none">1. Make sure hand brake is fully applied if leaving locomotive unattended.2. Place generator field switch OFF.3. Remove reverser.4. Move the engine control switch (isolation switch) to the START/STOP/ISOLATE position.5. Shut down engine (EFCO Switch in Locomotive Cab).6. Wait 2 minutes.7. Open all non-covered accessory switches and circuit breakers on the Engineer's Control Panel. Open all covered circuit breakers in accordance with shutdown sticker on locomotive.<ul style="list-style-type: none">• If locomotive is GE AC Model (i.e. C44AC, C44ACTE, C45ACCTE, etc.) open BCCB circuit breaker first, wait until the operator screens go blank and green LED extinguishes. Then turn off the remaining breakers prior to opening the main battery switch.8. Wait 2 minutes.9. Open main battery switch, except:<ul style="list-style-type: none">• Main battery switch may be left closed for up to two hours to maintain cab signal link on locomotives operating in cab signal territory.• Main battery switch may be left closed on RCL to maintain link during short-term securement. <p>Note: Locomotives must be stopped before being shut down, except for mechanical failures or an emergency situation.</p>
---	--

Rule Updated Date

May 2, 2016

[^Top](#)

31.8.7.2: Prevent Engine Cooling System from Freezing

31.8.7.2	Prevent Engine Cooling System from Freezing The engineer is responsible for protecting locomotives from freeze damage. If an engine dies and cannot be restarted, the engine must be drained if the temperature is below 32 degrees F. Notify the train dispatcher. If the failure is in the distributed power, immediately contact the train dispatcher.
-----------------	--

Rule Updated Date

January 20, 2012

[^Top](#)

Union Pacific Rules

Air Brake and Train Handling Rules

32.0: Securement/Train Operations - Chapter 32

- [32.0: Securement / Train Operations](#)
- [32.1: Securing Equipment](#)
- [32.1.1: Securement Procedures](#)
- [32.1.2: Securing an Unattended Train or Portion of Train with Locomotive Attached](#)
- [32.1.3: Securing an Unattended Train Before Detaching Locomotives](#)
- [32.1.4: Single Car Securement](#)
- [32.1.5: Securing Specialized Equipment](#)
- [32.1.6: Releasing Hand Brakes](#)
- [32.2: Securing Locomotives](#)
- [32.2.1: Unattended Locomotive\(s\)](#)
- [32.2.1.1: Securing Locomotive Cab Doors](#)
- [32.2.2: Separating Locomotives](#)
- [32.3: Train Line](#)
- [32.3.1: Undesired Emergency Resulting in Train Separation](#)
- [32.3.2: Coupling Brake Pipe Connections](#)
- [32.3.3: Coupling to Opposite End of Cars](#)
- [32.4: Inclement Weather](#)
- [32.4.1: Required Air Brake Test During Inclement Weather](#)
- [32.5: Overcharge](#)
- [32.5.1: Reducing Pressure in Overcharged Train Brake Systems](#)
- [32.6: Flat Spots](#)
- [32.6.1: Reporting Flat Spots](#)
- [32.7: Air Brake Operation](#)
- [32.7.1: Air Brakes Not Operating Properly](#)
- [32.7.2: Sticking Brakes](#)
- [32.7.3: Procedure to Cut-Out Control Valve and/or Bleeding Off Car](#)
- [32.7.4: Placement of Cars with Cut-Out Air Brake Equipment](#)
- [32.8: Setting Out Cars](#)
- [32.8.1: Setting Out Defective Cars](#)
- [32.9: Telemetry](#)
- [32.9.1: Emergency Application Capability from Rear of Train](#)
- [32.9.2: Installation](#)
- [32.9.3: Arming HEU/EOT](#)
- [32.9.4: Testing HEU/EOT](#)

- [32.9.5: Emergency Switch](#)
- [32.9.6: Loss of Emergency Application Capability from Rear of Train](#)
- [32.9.7: Disarming HEU/EOT](#)
- [32.10: Unusual Conditions](#)
- [32.10.1: Unusual Air Brake Conditions](#)

32.0: Securement / Train Operations

32.0 Securement / Train Operations

Rule Updated Date

January 20, 2012

[^Top](#)

32.1: Securing Equipment

32.1 <i>49 CFR</i> <i>232.103</i> Reference Rule 7.6	Securing Equipment Crew members are responsible for securing standing equipment with a sufficient amount of hand brakes to prevent undesired movement. The air brake system must not be depended upon to prevent an undesired movement. On cuts of two or more cars, or on multi-platform cars with two hand brakes, a minimum of two hand brakes must be applied unless otherwise specified.
--	--

Rule Updated Date

May 2, 2016

[^Top](#)

32.1.1: Securement Procedures

32.1.1	Securement Procedures The number and location of hand brakes to be applied depends on the following: <ul style="list-style-type: none"> • Grade: <ul style="list-style-type: none"> ○ On low end when slack is bunched. ○ On high end when slack is stretched. • Number of loaded and empty cars, and type of car.
---------------	---

18,000-18,999	13	26	38	51	64	76	All	All	All	All	All	All	All
19,000-19,999	14	27	40	54	67	80	All	All	All	All	All	All	All
20,000-20,999	14	28	42	56	70	All	All	All	All	All	All	All	All
21,000-21,999	15	30	44	59	74	All	All	All	All	All	All	All	All
22,000-22,999	16	31	46	62	77	All	All	All	All	All	All	All	All
23,000-23,999	16	32	48	64	80	All	All	All	All	All	All	All	All
24,000-25,000	17	34	50	67	All	All	All	All	All	All	All	All	All

Rule Updated Date

May 2, 2016

[^Top](#)

32.1.2: Securing an Unattended Train or Portion of Train with Locomotive Attached

<p>32.1.2</p> <p>Reference Rule 7.6 32.1.1 32.1.3 32.2.1</p>	<p>Securing an Unattended Train or Portion of Train with Locomotive Attached</p> <p>To secure a train or a portion of a train with the lead locomotive consist attached, perform the steps below:</p> <ol style="list-style-type: none"> 1. Determine the minimum number of hand brakes required to secure a train. 2. Secure equipment against undesired movement as outlined in Rule 32.1.1 (Securement Procedures). 3. Secure the lead locomotive consist and apply the air brakes as outlined in Rule 32.2.1 (Unattended Locomotive(s)), 4. Complete Train and Locomotive Checklist.
---	---

Rule Updated Date

May 2, 2016

[^Top](#)

32.1.3: Securing an Unattended Train Before Detaching Locomotives

<p>32.1.3</p> <p>Reference Rule 30.8.1 32.1.1</p>	<p>Securing an Unattended Train Before Detaching Locomotives</p> <p>Before detaching locomotives or locomotives and cars:</p> <ol style="list-style-type: none"> 1. Comply with Rule 32.1.1. 2. Make a 20-psi brake pipe reduction. <p>Exception:</p>
--	--

	<p>Comply with Rule 30.8:</p> <ul style="list-style-type: none"> • At terminals where Mechanical Department will make immediate air brake inspections and repairs after locomotives are detached, comply with Rule 30.8.1. • When separating a train in temperatures below 25 degrees F, follow the steps in Rule 30.8.1 to prevent vent valves from sticking open. <p>After brake pipe exhaust ceases, close the angle cock on the rear locomotive or last car to be detached from portion left standing. Leave the angle cock open on the portion left standing. (Do not bottle the air.) When removing locomotive(s) from a previously secured train or cut of cars, tie additional hand brakes on cars equal to the number of locomotives removed.</p>
--	--

Rule Updated Date

May 2, 2016

[^Top](#)

32.1.4: Single Car Securement

<p>32.1.4</p>	<p>Single Car Securement</p> <p>A. Do not detach and leave a single car standing when the car can be coupled to and left secured with other equipment.</p> <p>After performing a single car securement test as required below, a single car may only be left standing when:</p> <ul style="list-style-type: none"> • On a customer's industry track or within a customer's facility. • In a yard equipped with derail protection. • An articulated car is equipped with two hand brakes and both hand brakes are applied and functioning. • The Car Department has chained the car to the rail. <p>When leaving only two cars, both cars must be equipped with wheel or ratchet type brakes.</p> <p>B. When a single car will be left standing, perform the following steps in the order outlined to prevent uncontrolled movement.</p> <ol style="list-style-type: none"> 1. Apply all hand brakes on car to be set-out. 2. Move car a sufficient distance to ensure hand brake(s) are functioning properly (If brake system is charged, release air brake on car before moving.) 3. Slowly bunch or stretch the slack at the coupler where uncoupling is to be made. 4. Observe and verify car does not move for 1 minute. If movement is observed, set out an additional car and retest.
----------------------	--

	<p>5. If brake system is charged, make a 20-psi brake pipe reduction before cutting away.</p> <p>6. After cutting away, tighten handbrake(s).</p> <p>Maintenance of Way and Car Department Employees moving cars with Brandt Trucks or Car Movers are governed by their own guidelines.</p>
--	---

Rule Updated Date

May 2, 2016

[^Top](#)

32.1.5: Securing Specialized Equipment

<p>32.1.5</p>	<p>Securing Specialized Equipment</p> <p>A. Roadrailer Equipment Roadrailer equipment is equipped with a spring-loaded parking brake (hand brake). The spring-loaded parking brake applies any time the brake cylinder pressure is lost. When this equipment is set out:</p> <ol style="list-style-type: none"> 1. Place the train in emergency. 2. Inspect 20% of the equipment (not fewer than 10 units) to ensure the brakes are applied. <p>B. Equipment with Multiple Hand Brakes When applying brakes on cars with multiple hand brakes, all hand brakes on car must be applied. When determining number of required hand brakes, each brake is considered one car.</p>
----------------------	--

Rule Updated Date

January 20, 2012

[^Top](#)

32.1.6: Releasing Hand Brakes

<p>32.1.6</p> <p>Reference Rule 7.7.1 7.12 32.1.4</p>	<p>Releasing Hand Brakes</p> <p>To prevent wheel damage, release hand brakes before moving cars or locomotives.</p> <p>A. Release Hand Brakes Before Movement Release all hand brakes to prevent wheel damage except when required to:</p> <ul style="list-style-type: none"> • Control slack. • Control speed while making gravity switch move. • Test hand brake.
---	---

	<p>When releasing hand brakes, check for slack and white paint showing on chain when equipped, and at least three additional hand brakes beyond the last applied hand brake.</p> <p>If a hand brake is difficult to release:</p> <ul style="list-style-type: none"> • Charge the air brake system. • Make a full service or emergency application. • Release the hand brake. <p>If the hand brake cannot be released using the above method, do not move the car except to set it out. The car must be observed during the entire movement to set out, and limit speed to 5 MPH. Report defect to Mechanical Help Desk/Dispatcher.</p> <p>B. Controlling Slack</p> <p>Charge air brake system before releasing hand brakes. On ascending grade, do not release all hand brakes until it is known that slack is stretched.</p>
--	---

Rule Updated Date

May 2, 2016

[^Top](#)

32.2: Securing Locomotives

32.2 Securing Locomotives

Rule Updated Date

January 20, 2012

[^Top](#)

32.2.1: Unattended Locomotive(s)

<p>32.2.1</p> <p><i>49 CFR</i></p> <p><i>232.103</i></p> <p>Reference Rule</p> <p>32.1.1</p> <p>31.8.7</p> <p>35.5.1</p>	<p>Unattended Locomotive(s)</p> <p>When securing engine:</p> <ol style="list-style-type: none"> 1. Place throttle in idle. 2. Place transition handle (if equipped) in OFF position. 3. Place generator field switch in OFF position. 4. Remove and leave reverser handle. 5. Apply hand brakes on all locomotives.
---	---

6. Comply with Rule 32.1 (Securing Equipment) unless locomotive(s) are coupled to previously tested equipment.
7. Fully apply the independent brake.
8. When engine is running, make a 20-psi brake pipe reduction after allowing the brake system to charge.
9. Place headlight switch to OFF position unless required by rule to leave on dim.
10. Place engine control switch to ISOLATE or START on all locomotives.
11. Close doors and windows.
12. Perform the following steps from the DP screen on the lead controlling locomotive when linked DP is not separated from train:
 - Select ISOLATE and execute for each remote consist in the train. This will cut-out the brake valve on the isolated remote(s) and disable throttle commands to the remote(s).
 - When train is ready to proceed, remote(s) must be returned to NORMAL status from the DP screen before releasing the automatic brakes.
13. Perform the following steps from the DP screen on the lead controlling locomotive when linked DP consist(s) are separated from train:
 - Comply with Rule 32.1 (Securing Equipment).
 - From the DP screen select SET OUT and execute.
 - Separate the train. Leave remote(s) in SET OUT until train is re-coupled.
 - After re-coupling, remote(s) must be returned to NORMAL status from the DP screen, and automatic brake must be in release before opening the angle cock on rear portion of the train.
14. When terminating a DP train:
 - From the SYSTEM screen select END DP and execute prior to detaching lead consist from the train.

Exceptions:

1. When on an unattended train, distributed power remote locomotives do not require hand brakes to be applied or engine control switch to be placed in ISOLATE or START when train is otherwise properly secured.
2. Distributed power remote consists may be left standing with all hand brakes applied at any location, even on the main track, for short durations when in the process of making up or disassembling a DP train.

At mechanical facilities, when locomotives are protected by outbound derails on designated servicing tracks, apply a sufficient number of hand brakes to prevent undesired movement, with a minimum of one per locomotive consist.

Additional securement guidelines for unattended locomotives not coupled to other equipment:

	<ul style="list-style-type: none"> • Must not be left unattended on a main track. However, when necessary to switch a locomotive in a consist (reposition, wye, etc.), a properly secured locomotive may be left unattended if crew remains in the area performing the switch move. • Must have all hand brakes applied. Release locomotive brakes to determine hand brakes will prevent movement. Fully apply independent brake and make a 20 psi automatic brake pipe reduction.
--	--

Rule Updated Date

May 2, 2016

[^Top](#)

32.2.1.1: Securing Locomotive Cab Doors

<p>32.2.1.1</p>	<p>Securing Locomotive Cab Doors</p> <p>A. Unattended Locomotives Controlling locomotives equipped with door locks and latches must be locked to prevent cab entry before leaving consist unattended outside of yards or terminals. Trailing locomotives may be left unlocked.</p> <p>To secure controlling locomotive in consist, latch/lock rear cab doors from inside cab, then exit and lock front door using the slide bolt padlock.</p> <p>Union Pacific locomotive padlocks require a double cut key, number D575, to operate. All crew members are required to have this key available while on duty.</p> <p>On trains and locomotives that will be delivered to foreign line railroads or interchange locations, crewmembers must leave locomotive cabs unlocked.</p> <p>B. Attended Locomotives Ensure cab doors on lead consist are unlocked when locomotives are attended except when necessary to prevent unauthorized entry.</p> <p>C. Distributed Power Distributed power locomotives must remain unlocked.</p>
------------------------	---

Rule Updated Date

May 2, 2016

[^Top](#)

32.2.2: Separating Locomotives

32.2.2	<p>Separating Locomotives</p> <p>When separating locomotives, do the following:</p> <ol style="list-style-type: none"> 1. Apply hand brakes on locomotives to be cut away from. 2. Reposition walkway end platforms and safety chains to create a continuous barrier at ends of locomotives. 3. Disconnect MU cables. 4. Plug the MU cables into a dummy receptacle. 5. Close cutout and angle cocks. 6. Cut-in and fully apply independent and automatic air brakes. 7. Separate locomotives, allowing hose connections to pull apart with movement of locomotive. 8. Attach air hoses to the dummy couplings or place them in the pockets.
--------	---

[test link](#)

Rule Updated Date

May 2, 2016

[^Top](#)

32.3: Train Line

32.3 Train Line

Rule Updated Date

January 20, 2012

[^Top](#)

32.3.1: Undesired Emergency Resulting in Train Separation

32.3.1	<p>Undesired Emergency Resulting in Train Separation</p> <p>When train separation occurs:</p> <ol style="list-style-type: none"> 1. Notify train dispatcher and Mechanical Help Desk. 2. Immediately secure detached portion(s) using Secondary Securement Procedure. 3. Close the angle cock on the rear of the cars still attached to the lead locomotive consist. 4. Recharge the air brake system. <p>Additional hand brakes may be required on low end:</p>
--------	---

	<ul style="list-style-type: none"> • Before releasing air brakes when necessary to control slack or prevent movement while recharging. • When necessary to work under or between equipment.
--	---

Rule Updated Date

May 2, 2016

[^Top](#)

32.3.2: Coupling Brake Pipe Connections

<p>32.3.2</p> <p>Reference Rule 33.6.2</p>	<p>Coupling Brake Pipe Connections</p> <p>Maintain brake pipe connections to enable the air brake system to function properly. Angle cocks must not be left partially closed or partially open.</p> <p>Before coupling air hoses to charge brake pipe:</p> <ol style="list-style-type: none"> 1. Make a 20-psi brake pipe reduction. On a grade, if necessary to prevent an undesired release of the cars being coupled to, make a 40-psi brake pipe reduction. 2. Notify crew members when the brake valve exhaust has stopped. 3. Couple the air hoses and open angle cocks slowly to prevent an emergency brake application. <p>Note: Distributed power trains, in some cases, require a different procedure when coupling to rear portion of train. Refer to Rule 33.6.2. (Adding Manned Helper Mid-train or Rear of Train).</p> <ol style="list-style-type: none"> 1. When adjusting air hose height: <ul style="list-style-type: none"> • Couple the air hoses. • Verify the brake pipe hose support is adjusted so that the glad hands are at least 4 inches above the top of the rail.
---	---

Rule Updated Date

May 2, 2016

[^Top](#)

32.3.3: Coupling to Opposite End of Cars

<p>32.3.3</p> <p>Reference Rule 32.1</p>	<p>Coupling to Opposite End of Cars</p> <p>When a locomotive will immediately run-around or couple to cars at the opposite end, first comply with the following:</p> <ul style="list-style-type: none"> • Make a 20-psi brake pipe reduction before cutting away from cars. • Allow air brake system to go into emergency.
---	---

	<ul style="list-style-type: none"> • Wait one minute. • Close angle cock on the standing portion of the train. <p>Do not bottle air or maintain air pressure in the brake pipe when locomotives are detached or yard air is uncoupled.</p>
--	--

Rule Updated Date

January 20, 2012

[^Top](#)

32.4: Inclement Weather

32.4 Inclement Weather

Rule Updated Date

January 20, 2012

[^Top](#)

32.4.1: Required Air Brake Test During Inclement Weather

<p>32.4.1</p> <p><i>49 CFR 232.107</i></p>	<p>Required Air Brake Test During Inclement Weather</p> <p>During inclement weather conditions that may cause snow or ice build up to occur between brake shoes and wheels, brake applications must be performed periodically to ensure proper braking effort is being provided.</p> <p>To allow any accumulation of ice or snow to melt from brake shoes before braking is necessary, the engineer must make a brake pipe reduction sufficiently in advance of locations where train will be required to:</p> <ul style="list-style-type: none"> • Reduce speed. • Operate at Restricted Speed. • Stop. <p style="text-align: center;">or</p> <ul style="list-style-type: none"> • Crest a grade. <p>If brakes do not provide sufficient braking effort, stop train immediately using an emergency brake application, if necessary. Train must not proceed except as instructed by proper authority.</p>
---	--

Rule Updated Date

May 2, 2016

[^Top](#)

32.5: Overcharge

32.5 Overcharge

Rule Updated Date

January 20, 2012

[^Top](#)

32.5.1: Reducing Pressure in Overcharged Train Brake Systems

32.5.1

Reducing Pressure in Overcharged Train Brake Systems

To reduce pressure in an overcharged train brake system, do the following:

1. Adjust the regulating valve to the required pressure.
2. Make a full service brake pipe reduction.
3. Wait at least 30 seconds after the brake pipe exhaust stops. Move the automatic brake handle to release, and charge the system to the required pressure.
4. An emergency application may be made to correct the condition.

Rule Updated Date

January 20, 2012

[^Top](#)

32.6: Flat Spots

32.6 Flat Spots

Rule Updated Date

January 20, 2012

[^Top](#)

32.6.1: Reporting Flat Spots

32.6.1 <i>49 CFR</i> <i>215.103</i> <i>229.75</i>	Reporting Flat Spots While inspecting car and locomotive wheels, measure and report flat wheels to proper authority and Mechanical Help Desk when length of flat area exceeds 1 inch. If wheel has a flat spot more than 2-1/2 inches long or wheel has adjoining flat spots that are each at least 2 inches long, the equipment must not be moved faster than 10 MPH and set out at first available point.
---	--

Rule Updated Date

January 20, 2012

[^Top](#)

32.7: Air Brake Operation

32.7 Air Brake Operation

Rule Updated Date

January 20, 2012

[^Top](#)

32.7.1: Air Brakes Not Operating Properly

32.7.1 Reference Rule 30.7.1	Air Brakes Not Operating Properly If the train air brake system is not operating properly, stop the train immediately and: <ol style="list-style-type: none"> 1. Inspect the air brakes to identify and correct the problem. 2. Before proceeding, conduct an Application and Release test.
---	--

Rule Updated Date

January 20, 2012

[^Top](#)

32.7.2: Sticking Brakes

32.7.2	Sticking Brakes Before adding cars that have been charged to the rear of a train, the engineer handling the cars to be
---------------	--

<p>Reference Rule 30.2.2</p>	<p>added must make a full service brake application before angle cocks are opened to prevent an overcharge and minimize the possibility of sticking brakes.</p> <p>When brakes do not properly release:</p> <ol style="list-style-type: none"> 1. Stop the train as soon as possible. 2. Determine why the brake(s) did not release and correct if possible. 3. Inspect for: <ul style="list-style-type: none"> • Hand brakes applied. • Retaining valve not in EXHAUST. • Leak in the air brake system. • Defective control valve. 4. Inspect car(s) before departing for wheel defects, and set out if necessary. <p>If air brake devices are cut-out en route, notify train dispatcher and Mechanical Help Desk.</p>
----------------------------------	--

Rule Updated Date

May 2, 2016

[^Top](#)

32.7.3: Procedure to Cut-Out Control Valve and/or Bleeding Off Car

<p>32.7.3</p>	<p>Procedure to Cut-Out Control Valve and/or Bleeding Off Car</p> <p>Cut-out control valves on defective cars as follows:</p> <ol style="list-style-type: none"> 1. Close the branch pipe cutout cock. 2. When cutting out a control valve, drain the air reservoirs completely by operating the brake cylinder release valve. <p>Bleed off cars only when:</p> <ul style="list-style-type: none"> • Repairing the brake system on a car. • Cutting out the brakes on a defective car. • Switching.
---------------	---

Rule Updated Date

January 20, 2012

[^Top](#)

32.7.4: Placement of Cars with Cut-Out Air Brake Equipment

32.7.4

49 CFR
232.15

Placement of Cars with Cut-Out Air Brake Equipment

Follow these requirements when air brake devices must be cut-out:

- Make sure no more than two consecutive air brake devices have been cut-out in a train.
- If necessary to cut-out a third consecutive air brake device, separate it from the other two cars with cut-out brakes by at least one car with operative brakes.
- If one air brake device/control valve is cut-out on a car with multiple control valves, consider the remaining brakes on that car to be operative.

Rear Car Brakes

The rear car of a train must have operative air brakes. If rear car air brakes become defective en route, set car out at first available location or reposition car in train.

Note: If the brake pipe on the disabled car is broken, the car with a broken brake pipe must be handled to set out location with brake pipe pressure in air hoses between the car ahead and the disabled car.

Rule Updated Date

May 2, 2016

[^Top](#)

32.8: Setting Out Cars**32.8 Setting Out Cars****Rule Updated Date**

January 20, 2012

[^Top](#)

32.8.1: Setting Out Defective Cars**32.8.1**

49 CFR
232.215

Setting Out Defective Cars

Set out a defective car whenever it cannot be safely moved to the next repair location. When a defective car must be set out, do the following:

1. Report to the train dispatcher and Mechanical Help Desk.
2. Set out where repair crew can inspect car.
3. If an overheated wheel or journal is involved, inspect the car for signs of fire before departing.

The defective car must be properly tagged.

Rule Updated Date

May 2, 2016

[^Top](#)

32.9: Telemetry

32.9 Telemetry

Rule Updated Date

January 20, 2012

[^Top](#)

32.9.1: Emergency Application Capability from Rear of Train

<p>32.9.1</p> <p><i>49 CFR 232.407</i></p> <p>Reference Rule 31.8.3</p> <p>Glossary Grade</p>	<p>Emergency Application Capability from Rear of Train</p> <p>A. Requirements</p> <p>Trains must be operated with the ability to place the train in emergency from the rear. The following trains are exempt from the requirement of this rule:</p> <ul style="list-style-type: none"> • Passenger and Commuter Trains. • Light engine consist with 8 or fewer units. • Locals, road switchers, and work trains that do not operate on mountain grades. • Trains that do not exceed 30 MPH and do not operate in heavy grade or mountain grade territory. <p>Application: Locals, road switchers, and work trains must:</p> <ul style="list-style-type: none"> • Not exceed 4,000 trailing tons • Travel over a distance that can normally be operated by a single crew in a single tour of duty. <p>B. Providing Emergency Application Capability from Rear of Train</p> <p>Any one of the following methods fulfills the requirement to provide emergency application capability from the rear of the train:</p> <ul style="list-style-type: none"> • An operable, two-way, end-of-train telemetry system (HEU/EOT), which must be armed and tested at point of installation. • Distributed power placed on rear of train.
--	---

	<ul style="list-style-type: none"> Trains with a manned helper, caboose/shoving platform, or passenger equipment at the rear of train equipped with an emergency brake valve and manned by an employee equipped with two-way radio communication with the engineer at head end of train.
--	---

Rule Updated Date

May 2, 2016

[^Top](#)

32.9.2: Installation

<p>32.9.2 <i>49 CFR</i> <i>232.409</i></p>	<p>Installation</p> <p>End-of-train device must have been calibrated within the last 368 days. Check the affixed stickers prior to installation.</p> <p>Exception: Calibration is not required on the Wabtec EOT with the sticker reading, "This unit is equipped with a Wabtec synthesized radio that complies with FRA-2004-18895."</p> <p>After entering the EOT number on the HEU of the locomotive, push the COMM TEST button to establish one-way communication with the EOT.</p> <p>After charging the train, the EOT pressure reading displayed in the locomotive HEU must be compared with that on the EOT. The EOT device must not be used if the difference between the two readings exceeds three pounds.</p>
---	---

Rule Updated Date

May 2, 2016

[^Top](#)

32.9.3: Arming HEU/EOT

<p>32.9.3 <i>49 CFR</i> <i>232.409</i></p>	<p>Arming HEU/EOT</p> <p>To arm the HEU:</p> <ol style="list-style-type: none"> Press the TEST button on the EOT, which will display the ARM NOW message on the HEU. Immediately press the COMMUNICATIONS TEST/ARM button on the HEU, which will display the ARMD message and light the EMERG ENABLED status LED at the same time. <p>If NOT ARMD appears on the HEU, the system did not accept the arming sequence. Repeat steps above. Some foreign HEU/EOT systems are self-arming when telemetry is established and may be so indicated by a "*" displayed on the HEU.</p>
---	---

Rule Updated Date

January 20, 2012

[^Top](#)

32.9.4: Testing HEU/EOT

<p>32.9.4</p> <p>49 CFR 232.407 232.409</p>	<p>Testing HEU/EOT</p> <p>To test the emergency application capability from the rear of the train, do the following:</p> <ol style="list-style-type: none">1. Close the angle cock ahead of the last car.2. Initiate an EOT emergency from the lead locomotive HEU. The brake pipe pressure on the EOT must reduce to 0-psi.3. Open the angle cock and determine that brake pipe pressure is restored before proceeding. <p>A. Establishing Communications</p> <p>If the End of Train Telemetry System is unable to establish communications at the installation point, train may be moved a maximum of one mile at Restricted Speed in an attempt to establish communications.</p> <p>B. Engineer Notification</p> <p>When the test of the emergency application capability from the rear is conducted, the engineer must be notified verbally or in writing that the test was successfully performed. If verbal notification is made, the train crew must record this notification on Air Brake Test form.</p> <p>The written notification must include the following:</p> <ul style="list-style-type: none">• Date and Time of test.• Location of test.• Name of employee conducting test. <p>Written notification must be maintained in the cab of the controlling locomotive.</p>
--	---

Rule Updated Date

January 20, 2012

[^Top](#)

32.9.5: Emergency Switch

<p>32.9.5</p> <p>49 CFR 232.409</p>	<p>Emergency Switch</p> <p>Once a system is properly armed, an emergency brake application can be made at any time. To initiate an emergency brake application at the end of the train:</p> <ol style="list-style-type: none">1. Lift the red cover of the EMERGENCY SWITCH.
--	---

	<ol style="list-style-type: none"> 2. Push the toggle switch up. 3. Verify that: <ol style="list-style-type: none"> a. The EMERGENCY message briefly appears in the message display window. b. The brake pipe pressure reading quickly drops to 0-psi. c. The LOW PRES message is displayed while the last car pressure is below 45-psi.
--	--

Rule Updated Date

January 20, 2012

[^Top](#)

32.9.6: Loss of Emergency Application Capability from Rear of Train

<p>32.9.6</p> <p><i>49 CFR</i> <i>232.407</i></p> <p>Reference Rule Glossary</p>	<p>Loss of Emergency Application Capability from Rear of Train</p> <p>Trains required to be equipped with rear-of-train emergency capability are considered to have an en route failure when any one of the following conditions occurs:</p> <ul style="list-style-type: none"> • EOT/HEU indicates: <ul style="list-style-type: none"> • Loss of front to rear communication. Message = FR NOCOM or NOCOM. • Emergency valve not enabled. Message = NOT ARMD and/or "Emergency Enabled" indicator NOT illuminated. • Emergency valve failure or EOT valve failure. Message = VALVFAIL. • Loss of communication exceeding 16 minutes 30 seconds as indicated by control console for distributed power locomotive on lead controlling locomotive at head end of train. • A loss of voice radio communication between a manned helper, caboose, or passenger equipment at the rear of the train and the lead controlling locomotive. <p>When an en route failure occurs:</p> <ul style="list-style-type: none"> • On other than mountain grades: <ul style="list-style-type: none"> • Train must not exceed 30 MPH. • Notify dispatcher. • On mountain grades, train must not proceed until: <ul style="list-style-type: none"> • Failure is corrected. <p style="text-align: center;">or</p> <ul style="list-style-type: none"> • Another method of compliance is used. <p>When communication is lost on mountain grade, a train may:</p>
---	--

	<ul style="list-style-type: none"> • Move a train length to attempt to reestablish communication or sufficient distance to clear obstruction. • Move train in sections due to en route failure. • Continue during a loss of radio communication between the employee at rear of train, provided train does not exceed 5 MPH above maximum authorized speed. <p>In the event of an emergency, use the emergency toggle switch to initiate emergency application, even if NO COM condition exists.</p>
--	---

Rule Updated Date

May 2, 2016

[^Top](#)

32.9.7: Disarming HEU/EOT

32.9.7	<p>Disarming HEU/EOT</p> <p>When a two-way EOT armed to a HEU is to be separated or when changing either an EOT or HEU en route, the HEU must be disarmed as outlined below:</p> <ol style="list-style-type: none"> 1. Set the HEU ID code to 00000, or follow the disarm procedures on the electronic display. 2. Press the COMMUNICATIONS TEST/ARM button. 3. Verify that the HEU displays EMERG DISABLED. <p>GE locomotives with screens displaying "Armed Other" indicate the HEU was not disarmed from the last two-way EOT utilized. This condition can be corrected by either of two methods:</p> <ul style="list-style-type: none"> • Enter the EOT number of the last EOT, and disarm as prompted by the EOT screen display. <p style="text-align: center;">or</p> <ul style="list-style-type: none"> • If last EOT identifying number is not known, HEU may be disarmed by arming the EOT after entering a valid EOT number. Push test button on EOT, then depress "Arm Now" button that will briefly appear in the lower right corner of the EOT screen.
---------------	---

Rule Updated Date

May 2, 2016

[^Top](#)

32.10: Unusual Conditions

32.10 Unusual Conditions

Rule Updated Date

January 20, 2012

[^Top](#)

32.10.1: Unusual Air Brake Conditions

32.10.1	Unusual Air Brake Conditions Follow this process when unusual air brake conditions exist: <ul style="list-style-type: none">• Train must be stopped, secured, and inspected.• Notify the Dispatcher/Mechanical Help Desk.• The Dispatcher must notify the appropriate operating manager for the territory.• Manager assisting crew will determine if the train can be moved safely or if it must be held for inspection.
----------------	---

Rule Updated Date

May 2, 2016

[^Top](#)

[Union Pacific Rules](#)

[Air Brake and Train Handling Rules](#)

33.0: Distributed Power and Manned Helper Chapter 33

- [33.0: Distributed Power and Manned Helper Requirements](#)
- [33.1: Distributed Power Requirements](#)
- [33.1.1: Employee Familiarization](#)
- [33.1.2: Brake Pipe Communication Test \(BP Test\)](#)
- [33.1.3: DP Radio Communication Interruption](#)
- [33.2: Remote Consist Unlinked/Shutdown](#)
- [33.2.1: Setting Out Remote Locomotive](#)
- [33.3: Changing from Independent to Synchronous Mode](#)
- [33.3.1: Operating DP Consist in Independent Mode](#)
- [33.4: Rear Remote Limitation](#)
- [33.4.1: Maximum Locomotives](#)
- [33.5: Descending Grade](#)
- [33.5.1: Distributed Power or Manned Helper, Descending Grade Exceeding 1.8%](#)
- [33.6: Manned Helper Requirements](#)
- [33.6.1: Operating Responsibilities with Manned Helper](#)
- [33.6.2: Adding Manned Helper Mid-train or Rear of Train](#)
- [33.6.3: Removing a Mid-train Helper](#)
- [33.6.4: Manned Helper Added to Head End of Non DP Train](#)
- [33.6.5: Manned Helper Removed from Head End of Non DP Train](#)
- [33.6.6: Transferring Control of Train Brakes](#)
- [33.7: Process for Set-up and Linking Locomotives for DP Service](#)
- [33.7.1: Conventional Set-up](#)
- [33.7.2: Display Screen and Remote Set-up](#)
- [33.7.3: Set-up - Distributed Power Lead](#)
- [33.7.4: Adding or Removing Remote Consist\(s\) \(Incremental Linking and Unlinking\)](#)
- [33.8: Procedures for Distributed Power Operation](#)
- [33.8.1: Distributed Power Brake Pipe Communication Test \(BP TEST\)](#)
- [33.8.2: Distributed Power Automated Leakage Test](#)
- [33.8.3: Set-out Function](#)
- [33.8.4: Train Check](#)
- [33.8.5: Remote Brake Valve \(BV\) Out](#)
- [33.8.6: Remote Mode Normal \(Normalize\)](#)
- [33.8.7: Operating Multiple and Cut-In DP Consists](#)

33.0: Distributed Power and Manned Helper Requirements

33.0 Distributed Power and Manned Helper Requirements
--

Rule Updated Date

January 20, 2012

[^Top](#)

33.1: Distributed Power Requirements

33.1 Distributed Power Requirements
--

Rule Updated Date

January 20, 2012

[^Top](#)

33.1.1: Employee Familiarization

33.1.1	Employee Familiarization Employees who set-up or operate distributed power equipment must comply with the requirements and instructions for the type of system they will operate.
---------------	---

Rule Updated Date

January 20, 2012

[^Top](#)

33.1.2: Brake Pipe Communication Test (BP Test)

33.1.2 Reference Rule 33.8.1 33.8.2	Brake Pipe Communication Test (BP Test) A brake pipe communication test is required when a distributed power train: <ul style="list-style-type: none">• Where a distributed train is originally assembled following radio link.• Any time cars are added between the head consist and any remote consist.
---	--

Rule Updated Date

[^Top](#)

33.1.3: DP Radio Communication Interruption

<p>33.1.3 Reference Rule 6.23 33.8.6</p>	<p>DP Radio Communication Interruption</p> <p>During a radio communication interruption, if safe to do so, keep the train moving to a location where communication is restored.</p> <p>A. If communication is interrupted and:</p> <ul style="list-style-type: none">• Brake valve is cut-in on remote(s), the last throttle and brake pipe pressure will be maintained for up to 90 minutes.• Brake valve on remote(s) is cut-out (BV Out), remote locomotives in power will return to idle. <p>B. When radio communication is interrupted, reducing the brake pipe by more than 4 PSI may cause the DPU remote(s) to idle down and the Brake valve on the remote(s) will automatically cut-out (BV Out).</p> <p>C. When necessary to idle the remote during communication interruption, make a full service brake pipe reduction to signal the affected remote(s) to return to idle. In addition:</p> <ul style="list-style-type: none">• Brake valve on remote(s) will automatically cut-out (BV Out).• Dynamic brake on remote(s) will be maintained at last command until communication is restored.• If necessary to idle dynamic brake, stop and then place train in emergency. <p>D. Recovering from Emergency During Communication Interruption</p> <p>After required train inspection and air flow is at or below 60 CFM on the lead consist, train may be moved to a location where communication may be restored. Remote locomotive brakes will respond to normal changes in brake pipe pressure, similar to a freight car (Box Car Mode).</p> <p>E. Communication Restored</p> <p>When communication is restored, the remote locomotive automatic brake valve will be cut-out (BV Out). The operator must normalize the controlling remote(s) to return to standard DP operations. Refer to rule 33.8.6</p> <p>After communication has been restored, if the flow line displays BV OUT, the next communication interruption will cause the remote locomotive(s) to return to idle if the remote</p>
---	---

	<p>locomotive(s) have not been normalized.</p> <p>Failure to normalize the controlling remotes will cause the remote locomotive(s) to return to idle if another communication interruption occurs.</p>
--	--

Rule Updated Date

May 2, 2016

[^Top](#)

33.2: Remote Consist Unlinked/Shutdown

33.2 Remote Consist Unlinked/Shutdown
--

Rule Updated Date

January 20, 2012

[^Top](#)

33.2.1: Setting Out Remote Locomotive

33.2.1	<p>Setting Out Remote Locomotive</p> <p>Contact dispatcher or proper authority and set out the remote locomotive or move to the head end of train at first available location when:</p> <ul style="list-style-type: none">• Controlling remote locomotive has unlinked and cannot be re-linked.or• Controlling remote is shut down due to en route failure.
---------------	--

Rule Updated Date

May 2, 2016

[^Top](#)

33.3: Changing from Independent to Synchronous Mode

33.3 Changing from Independent to Synchronous Mode

Rule Updated Date

January 20, 2012

[^Top](#)

33.3.1: Operating DP Consist in Independent Mode

33.3.1	Operating DP Consist(s) in Independent Mode When operating distributed power consists in independent mode (fence up), do not place consists in synchronous mode until all consists are in the same throttle (power or dynamic brake) setting unless cresting a grade using multiple remote consists. When using multiple remote consists, only one fence can be utilized. Fence can be moved between any two consists.
---------------	---

Rule Updated Date

May 2, 2016

[^Top](#)

33.4: Rear Remote Limitation

33.4 Rear Remote Limitation

Rule Updated Date

January 20, 2012

[^Top](#)

33.4.1: Maximum Locomotives

33.4.1 Reference Rule SSI Item 5-B / 5-C	Maximum Locomotives A distributed power consist on the rear of a train is limited to no more than two locomotives. En Route Locomotive Failure: Three locomotives may be in rear distributed power consist providing: <ul style="list-style-type: none">• A locomotive failure occurs in rear consist after train departs initial terminal.• Train is operating on or will traverse territory with a ruling grade of 1% or greater.and• The non-working locomotive must be isolated or shut down and set-out at next practical location where repairs can be made.
---	---

	<p>When necessary to assist distributed power trains with manned helper operations, additional locomotives may be placed on the rear of the train.</p> <p>All conditions require proper train make-up and powered axle limitations (EPA).</p>
--	---

Rule Updated Date

May 2, 2016

[^Top](#)

33.5: Descending Grade

33.5 Descending Grade

Rule Updated Date

January 20, 2012

[^Top](#)

33.5.1: Distributed Power or Manned Helper, Descending Grade Exceeding 1.8%

33.5.1	<p>Distributed Power or Manned Helper, Descending Grade Exceeding 1.8%</p> <p>When operating trains with lead consist in dynamic brake and helper(s) in power, do not exceed throttle position 4 on helper consist(s).</p>
---------------	---

Rule Updated Date

May 2, 2016

[^Top](#)

33.6: Manned Helper Requirements

33.6 Manned Helper Requirements
--

Rule Updated Date

January 20, 2012

[^Top](#)

33.6.1: Operating Responsibilities with Manned Helper

<p>33.6.1 49 CFR 232.219</p>	<p>Operating Responsibilities with Manned Helper Comply with these helper operating responsibilities:</p> <ul style="list-style-type: none"> • The engineer in the lead locomotive is in charge of train movement. Helper engineer must follow lead engineer's instructions regarding train handling and other operating responsibilities. • Helper locomotive engineers must closely observe brake pipe gauge in order to appropriately react to either a service or emergency brake pipe reduction and control locomotive brakes as necessary. • Engineers must comply with site-specific instructions regarding trains operating with helper(s) when applicable.
---	---

Rule Updated Date

May 2, 2016

[^Top](#)

33.6.2: Adding Manned Helper Mid-train or Rear of Train

<p>33.6.2 49 CFR 232.219 Reference Rule 30.7.1 33.7.4</p>	<p>Adding Manned Helper Mid-train or Rear of Train Procedure for Adding Mid-train or Rear Helper:</p> <ol style="list-style-type: none"> 1. When a helper is entrained or coupled at rear of train, before the angle cocks are opened, the engineer on the helper must: <ul style="list-style-type: none"> a. Make a 20-psi brake pipe reduction. b. Cut-out the automatic brake valve and place the handle in Handle Off position. c. Leave the independent brake valve cut-in. d. Couple the brake pipe hoses. Open the brake pipe angle cock on manned locomotive first, and then open angle cock on car or engine. 2. After the helper is placed in the train or coupled at the rear of the train, the engineer of the leading locomotive must: <ul style="list-style-type: none"> a. Increase the brake pipe reduction to 20-psi. Observe at least a 5-psi brake pipe reduction at the rear of train as indicated by gauge or device. b. Release the train brakes and determine that there is at least a 5-psi brake pipe increase at rear of train as indicated by gauge or device. <p>On DP trains, do not select SET OUT, BV OUT, or ISOLATE. Leave remote(s) in normal status.</p>
---	---

Rule Updated Date

May 2, 2016

[^Top](#)

33.6.3: Removing a Mid-train Helper

<p>33.6.3</p> <p><i>49 CFR</i> <i>232.211</i></p> <p>Reference Rule</p> <p>30.7.1 30.10.1 33.7.4</p>	<p>Removing a Mid-Train Helper</p> <p>After a mid-train helper is removed, an Application and Release Test is required. An Application and Release Test is not required when removing helper from the rear of the train.</p>
---	---

Rule Updated Date

May 2, 2016

[^Top](#)

33.6.4: Manned Helper Added to Head End of Non DP Train

<p>33.6.4</p> <p><i>49 CFR</i> <i>232.219</i></p>	<p>Manned Helper Added to Head End of Non DP Train</p> <p>When a helper is coupled on the head end of the train, transfer control of the air brakes and throttle to the helper as follows:</p> <ol style="list-style-type: none">1. After coupling, connect the MU cable and brake pipe between consists.2. Before opening angle cocks between the road locomotive and the helper, the engineer on the road locomotive will:<ol style="list-style-type: none">a. Make at least a 6-psi brake pipe reduction.b. After the brake pipe exhaust has ceased, cut-out the automatic brake valve and place handle in Handle Off position.c. Notify the engineer on the manned helper of the amount of brake pipe pressure reduction made.d. Ensure the independent brake valve remains cut-in.3. The engineer on helper will:<ol style="list-style-type: none">a. Move the automatic brake valve handle into the service zone to reduce the equalizing reservoir pressure 2-psi below the brake pipe pressure reduction made by the engineer on the road locomotive.b. After opening the angle cock, increase brake pipe reduction to at least 20-psi, and observe at least a 5-psi reduction as indicated by gauge or device at the rear of train.
--	---

c.

	Release the automatic air brakes and observe a 5-psi increase in pressure as indicated by a gauge or device at rear of train.
--	---

Rule Updated Date

May 2, 2016

[^Top](#)

33.6.5: Manned Helper Removed from Head End of Non DP Train

<p>33.6.5 <i>49 CFR</i> <i>232.219</i></p>	<p>Manned Helper Removed from Head End of Non DP Train When helper will be detached from the head end of train, do the following:</p> <ul style="list-style-type: none"> • Engineer on helper will make at least a 6-psi brake pipe reduction before detaching. • After cutting off helper, road engineer will: <ul style="list-style-type: none"> a. Move the automatic brake valve handle to the release position to recover the equalizing reservoir pressure. b. Move the automatic brake valve into the service zone to reduce the equalizing reservoir pressure 2-psi below the brake pipe pressure reduction made by the helper locomotive engineer. c. Cut-in the automatic brake. d. Increase the brake pipe reduction to at least 20-psi and observe at least a 5-psi reduction as indicated by a gauge or device at the rear of the train. e. Release the automatic air brakes and observe that brake pipe pressure is being restored by observing a 5-psi increase as indicated by a gauge or device at the rear of the train.
---	---

Rule Updated Date

May 2, 2016

[^Top](#)

33.6.6: Transferring Control of Train Brakes

<p>33.6.6</p>	<p>Transferring Control of Train Brakes Transfer control of the train air brakes to other entrained locomotive as follows: Original controlling locomotive:</p>
----------------------	---

	<ol style="list-style-type: none"> 1. With the train air brakes applied and the brake pipe pressure equalized, cut-out the automatic brake valve. 2. If detaching the locomotive, do not close the angle cocks until transfer of the air brakes has been completed. <p>New controlling locomotive:</p> <ol style="list-style-type: none"> 1. If not previously coupled to train, reduce the equalizing pressure 20-psi, and then cut-out the automatic brake valve before opening angle cocks between locomotive and cars. Open the brake pipe angle cock on the locomotive first, and then slowly open the brake pipe angle cock on the car. 2. Move the automatic brake valve handle to the release position to recover the equalizing reservoir pressure. 3. Move the automatic brake valve handle into the service zone until the equalizing reservoir pressure is slightly below brake pipe pressure. 4. Cut-in the automatic brake valve. 5. Immediately reduce brake pipe pressure to not less than a 20-psi reduction. <p>Note: The train must be secured before transferring train air brakes unless both the original and new controlling locomotives are occupied by qualified train service engineers.</p>
--	--

Rule Updated Date

January 20, 2012

[^Top](#)

33.7: Process for Set-up and Linking Locomotives for DP Service

33.7 Process for Set-up and Linking Locomotives for DP Service

Rule Updated Date

January 20, 2012

[^Top](#)

33.7.1: Conventional Set-up

33.7.1	<p>Conventional Set-up</p> <p>When DP consist has not been previously tested and inspected by mechanical forces for distributed power service, the following tasks must be performed:</p> <ul style="list-style-type: none"> • Each consist must be set-up as an individual conventional consist, air tested, and loading. • Verify equalizing reservoir pressure on controlling locomotives is 90-psi.
---------------	--

- Clear any air brake computer faults.
- Connect brake pipe only between consists.
- Controlling locomotive of each consist must be running during set-up. Override Automatic Engine Start / Stop (AESS) if necessary.

Rule Updated Date

May 2, 2016

[^Top](#)

33.7.2: Display Screen and Remote Set-up

33.7.2

Display Screen and Remote Set-up

A. Display Screen Set-up

The standard method of screen set-up is that the primary screen displays gauges, speed indicator and DP main menu; the secondary screen displays a full-size DP control screen:

- C45ACCTE, C45AH, SD70ACe & SD70AH: The default setting is the primary screen on right display only. The screen control soft key may be used to modify the default setting, if desired.
- C44ACCTE & C44AC: The screen selected by the user to access the initial DP set-up menu defaults as the primary screen. After linking, press the DIST PWR soft key to access the DP control screen on the secondary display.
- SD9043AC: Functions the same as C44ACCTE; the screen display selector switch must be set to "both."
- To view the DP Control screen and gauges on a single screen, press DP combined/DP operation soft key from DP main menu on primary screen.

B.Set-up – Distributed Power Remote

Use the following sequence to set-up remote DP consist(s):

1. Start from the rear consist first and work forward.
2. Set independent brake to lead and fully apply.
3. Cut-in automatic brake and release.
4. Remove reverser handle.
5. Place generator field switch to off.
6. Place dynamic brake, control, and fuel pump switches to on.
7. Position locomotive isolation switch to run.
8. Turn on DP circuit breaker(s) on back wall. (May be labeled as Data Radio) *No breaker on SD70ACe.*
9. Zero out EOT setting. (May require entering 00001).

	<ol style="list-style-type: none"> 10. Cut-out Cab Signals using switches in screen. Cab Signal circuit breaker (back wall), must remain on. 11. On engineer's primary display screen, press DIST POWER soft key, then press REMOTE SET UP. 12. Enter LEAD unit number using soft keys. 13. Press the same/opposite direction soft key to set the direction that this locomotive is facing compared to the lead locomotive. Caution: Do not bypass this step. 14. Press the DONE or ACCEPT soft key. 15. Place automatic brake to handle off and independent brake to release. Insert keeper pin in automatic brake handle if equipped. 16. Place trailing headlight on dim if rear locomotive. 17. Pull in mirrors and close windows/doors. 18. Lock the engineer's seat so it does not swivel. 19. Release the hand brakes on all locomotives in the remote consist.
--	---

Rule Updated Date

May 2, 2016

[^Top](#)

33.7.3: Set-up - Distributed Power Lead

<p>33.7.3</p>	<p>Set-up – Distributed Power Lead</p> <p>Use the following sequence to set-up lead DP consist:</p> <ol style="list-style-type: none"> 1. Set the independent brake to lead and fully applied. 2. Set the automatic brake to cut-in and release. 3. Turn on DP circuit breaker(s) on the back wall. (May be labeled as Data Radio) <i>No breaker on SD70ACe.</i> 4. Position the isolation switch on back wall to Run. 5. On the engineer's primary screen, press the DIST POWER soft key, then press the LEAD SET UP soft key. 6. Enter controlling REMOTE unit number. 7. Press the LINK soft key. System will display "Linked OK" when radio communication is established. 8. System will prompt to enter another controlling remote unit. Enter if train has additional remote consist(s). 9. Press the DONE or ACCEPT soft key when finished.
----------------------	--

	<ol style="list-style-type: none"> 10. Select FTE (Full Tractive Effort) or CTE (Controlled Tractive Effort) as applicable and EXECUTE. 11. Follow on-screen prompts to recover air. Do not attempt release until "Go to Release" is displayed. 12. Press DIST POWER soft key on Secondary screen to activate DP Control screen. 13. DP Control screen will indicate flow on each consist. When flow displays less than 20 CFM on all consists or stabilized, press BP TEST soft key and EXECUTE from System Menu on Primary screen. 14. Apply minimum service when prompted. 15. System will display "BP Test OK" when complete. 16. If test fails, release air, recharge train, and attempt test again. Most BP Test failures are due to air flow not being fully stabilized. 17. Select the LEAKAGE soft key and EXECUTE from the System Screen on Primary Display to perform Automated Leakage Test. 18. From the DP main menu on the primary display, select the MODE soft key, and press RUN and Execute.
--	--

Rule Updated Date

May 2, 2016

[^Top](#)

33.7.4: Adding or Removing Remote Consist(s) (Incremental Linking and Unlinking)

<p>33.7.4 Reference Rule: SSI Item 5-B</p>	<p>Adding or Removing Remote Consist(s) (Incremental Linking and Unlinking)</p> <p>A. Incremental Linking</p> <p>(Adding Remote Consist(s))</p> <ol style="list-style-type: none"> 1. Select DP MAIN MENU. 2. Select TRAIN CONFIG (configuration). 3. Select LINK Remote, and select EXECUTE. 4. Enter the Road Identifier, for example: UP 1995. 5. Select LINK. 6. Select DONE after final consist is added and Linked OK message is displayed. 7. Select SYSTEM. 8. Select FTE or CTE mode to comply with maximum EPA restrictions as applicable. 9. Press FTE or CTE and select EXECUTE. 10. Select DP MAIN MENU. 11. Select SYSTEM. 12. Select BRAKE PIPE TEST, then select EXECUTE. (Remote Consist(s) will be re-sequenced
---	---

	<p>on remote screen.)</p> <ol style="list-style-type: none"> 13. Select DP MAIN MENU to access MODE. 14. Select RUN FTE or RUN CTE, and select EXECUTE. 15. Place Remote consist(s) in RUN mode. <p>B. Incremental Unlinking (Removing Remote Consist(s))</p> <p>If removing a remote consist from a train with multiple DP consists, the DP consist that remains with the train must be placed into Set Out mode prior to beginning this process.</p> <ol style="list-style-type: none"> 1. Select DP MAIN MENU. 2. Select TRAIN CONFIG (configuration). 3. Select UNLINK REMOTE, then select EXECUTE. 4. Select UNLINK REM B, C, or D as applicable and press EXECUTE. 5. Select CONFIRM. 6. Select DONE. 7. After DP consist is successfully unlinked, perform a BRAKE PIPE TEST. (Remote Consist(s) will be re-sequenced on remote screen.)
--	--

Rule Updated Date

May 2, 2016

[^Top](#)

33.8: Procedures for Distributed Power Operation

33.8 Procedures for Distributed Power Operation

Rule Updated Date

January 20, 2012

[^Top](#)

33.8.1: Distributed Power Brake Pipe Communication Test (BP TEST)

33.8.1	<p>Distributed Power Brake Pipe Communication Test (BP TEST)</p> <p>The following procedure is required any time cars are added between the lead consist and any remote consist:</p>
---------------	---

	<ol style="list-style-type: none"> 1. The DP Control screen will indicate flow on each consist. When the flow displays less than 20 CFM on all consists or the flow has remained stable for 90 seconds, press BP TEST soft key and EXECUTE from System Menu on the Primary screen. 2. Apply Minimum Service when prompted. 3. System will display "BP Test OK" when complete. <ul style="list-style-type: none"> • If the test fails, recharge the train and re-test. Most BP Test failures are due to air flow not being fully stabilized. • If the test fails after three attempts, inspect the train for excessive leakage or improperly positioned angle cock(s) before retesting.
--	--

Rule Updated Date

May 2, 2016

[^Top](#)

33.8.2: Distributed Power Automated Leakage Test

33.8.2	<p>Distributed Power Automated Leakage Test</p> <p>The following procedure is required when performing a brake pipe leakage test.</p> <ol style="list-style-type: none"> 1. On the primary screen, press the SYSTEM soft key, then the LEAKAGE soft key and EXECUTE. 2. The system will automatically make a 20-psi brake pipe reduction, cut-out brake valves on all consists, and calculate brake pipe leakage. 3. Follow the screen prompt when "Apply Full Service Reduction to End Test" is displayed. 4. The primary screen will display the amount of leakage when test is complete. The leakage test may take up to 5 minutes. 5. Release the automatic air brakes when prompted. This will cut-in brake valves. <ul style="list-style-type: none"> • If the train is ready for immediate departure, train check is not required. 6. On primary screen, from DP main menu, select MODE, press RUN soft key and EXECUTE.
--------	--

Rule Updated Date

May 2, 2016

[^Top](#)

33.8.3: Set-out Function

33.8.3	
--------	--

<p>Reference Rule 32.7.2 34.4</p>	<p>Set-out Function</p> <p>Use set-out function when trainline is separated between lead consist and remote, including train separation. If train is in emergency, comply with step 1 before recovering the air.</p> <p>Make a 20-psi reduction and allow brake pipe to exhaust, then:</p> <ol style="list-style-type: none"> 1. On the Secondary Display, press the REMOTE soft key, then press the SET OUT soft key and EXECUTE. The selected remote is highlighted on display. Repeat the process if more than one remote consist is set out. 2. Verify "Set Out" appears on the remote status. 3. Separate train. A red PCS indication should begin flashing above the remote display upon separation. 4. Make switching moves as needed, and re-couple to train when finished. Do not open the angle cock. 5. On the Remote Screen on Secondary Display, press the NORMAL soft key and EXECUTE. 6. Verify that the remote status on display changes from "Set Out" to "Normal." 7. The automatic brake must be released before angle cock is opened or train will go into emergency. 8. Slowly open the angle cock to rear portion of train. Brake valve (BV) will cut-in on remote when a brake pipe pressure increase is sensed.
---	--

Rule Updated Date

May 2, 2016

[^Top](#)

33.8.4: Train Check

<p>33.8.4 Reference Rule 34.4</p>	<p>Train Check</p> <p>Perform a train check when required per rule 34.4:</p> <ol style="list-style-type: none"> 1. A BP reduction of at least 10-psi must be in effect before the TRAIN CHECK soft key will display. On the Primary screen from the DP Main menu, select SYSTEM, then press TRAIN CHECK and EXECUTE. 2. Release the brakes when ready to depart. "Train Check OK" message should display in less than one minute. <p>If the "Train Check Fail" message is displayed, comply with one of the following:</p> <ul style="list-style-type: none"> ○ Repeat Train Check with brake pipe reduction greater than 10-psi. ○ Perform a manual train check by selecting BV OUT on Remote Screen, then select NORMAL and EXECUTE. Release the automatic brake. If the remote BV cuts in, this satisfies the Train Check requirement.
---	--

	<p>If the test fails three times, inspect the train for closed angle cock(s).</p> <p>Note: When the temperature is below ten degrees Fahrenheit, initiate a Train Check just prior to departure.</p>
--	--

Rule Updated Date

May 2, 2016

[^Top](#)

33.8.5: Remote Brake Valve (BV) Out

<p>33.8.5 Reference Rule 33.1.3 33.8.4</p>	<p>Remote Brake Valve (BV) OUT</p> <p>The BRAKE VALVE (BV) OUT function can be used when troubleshooting air brake problems and when making a brake pipe continuity check as outlined in Rule 33.8.4.</p> <p>Distributed Power trains must not be operated with Remote(s) in BV OUT mode unless authorized by a DSLE.</p> <p>When authorized to operate in the remote BV OUT mode, the consist(s) will not continue to operate in power following a communication interruption of 45 seconds or more.</p>
---	--

Rule Updated Date

May 2, 2016

[^Top](#)

33.8.6: Remote Mode Normal (Normalize)

<p>33.8.6 Rule Reference: 33.8.3</p>	<p>Remote Mode Normal (Normalize)</p> <p>When the distributed power system is linked and the brake pipe leakage test is complete, the remote consists are in NORMAL.</p> <p>Returning a Remote Consist to NORMAL mode.</p> <p>See Rule 33.8.3 for instructions to return to NORMAL from the SET OUT mode.</p> <p>If a remote is in other than SETOUT mode, return it to NORMAL as follows:</p> <ol style="list-style-type: none"> 1. Select NORMAL from the remote display. 2. Cut in the automatic brake valve by making at least a 10-PSI brake pipe application and release. <p>Note: A change to this mode can be made while train is moving or stopped.</p>
---	--

Rule Updated Date

May 2, 2016

[^Top](#)

33.8.7: Operating Multiple and Cut-In DP Consists

<p>33.8.7 Rule Reference SSI Item 5-C</p>	<p>Operating Multiple and Cut-in DP Consists The maximum number of Distributed Power remote consists is four. Example: "A Consist (Head End) - B Consist - C Consist - D Consist – E Consist (Rear Remote)"</p>
--	---

Rule Updated Date

May 2, 2016

[^Top](#)

Union Pacific Rules

Air Brake and Train Handling Rules

34.0: Train Handling Chapter 34

- [34.0: Train Handling](#)
- [34.1: Train Handling Responsibilities](#)
- [34.2: Train Handling Guidelines](#)
- [34.2.1: Starting/Accelerating Train](#)
- [34.2.2: Slowing or Controlling Speed](#)
- [34.2.3: Slowing/Controlling Speed on Level or Descending Grade, with Dynamic Brakes, Slack Bunched](#)
- [34.2.4: Stretch Braking](#)
- [34.2.5: Ascending Grade](#)
- [34.2.6: Cresting Grade](#)
- [34.2.7: Undulating Grade](#)
- [34.2.8: Stopping](#)
- [34.2.9: Unplanned Stops](#)
- [34.2.10: Emergency Brake Applications](#)
- [34.2.11: Shoving Equipment](#)
- [34.2.12: Switching Movements](#)
- [34.2.13: Disturbed Track/Temporary Speed Restrictions/Heat Restrictions](#)
- [34.2.14: Thermal Misalignment](#)
- [34.3: Grade Operations](#)
- [34.3.1: Balance Braking](#)
- [34.3.2: Recharging on a Grade](#)
- [34.4: Delayed Departure](#)
- [34.5: Car Air Brakes](#)
- [34.5.1: Applying or Reapplying Automatic Brakes](#)
- [34.5.2: Releasing Brakes](#)
- [34.5.3: Unintentional Brake Release](#)
- [34.5.4: Regulating Valve Braking](#)
- [34.5.5: Retaining Valves](#)
- [34.5.6: Use of Automatic Brakes During Cold Weather Conditions](#)
- [34.6: Locomotive Operation](#)
- [34.6.1: Independent Brake \(Locomotive Brake\)](#)
- [34.6.2: Throttle and Reverser Positions](#)
- [34.6.3: Dynamic Braking](#)
- [34.6.4: Short Time Rating/Minimum Continuous Speed](#)
- [34.6.5: Penalty Brake Application](#)

34.0: Train Handling

34.0 Train Handling

Rule Updated Date

January 20, 2012

[^Top](#)

34.1: Train Handling Responsibilities

34.1	<p>Train Handling Responsibilities</p> <p>Crew members must exercise judgment and plan ahead to operate their train safely and efficiently. The engineer is responsible for properly controlling in-train forces. Proper train handling requires a combination of communication, throttle modulation, dynamic braking, and air braking to:</p> <ul style="list-style-type: none">• Prevent injury.• Prevent damage to the track structure, equipment and lading. <p>Controlling and limiting in-train forces are essential to safe train operation. Unless an emergency or other condition requires immediate speed reduction, make:</p> <ul style="list-style-type: none">• Throttle position changes one notch at a time.• Dynamic brake changes gradually.• Air brake applications to allow slack to adjust.
-------------	---

Rule Updated Date

May 2, 2016

[^Top](#)

34.2: Train Handling Guidelines

34.2 <i>49 CFR 232.109</i>	<p>Train Handling Guidelines</p> <p>Train handling guidelines for starting, stopping, slowing, and controlling trains as well as unplanned stops.</p>
--	--

Rule Updated Date

January 20, 2012

34.2.1: Starting/Accelerating Train

34.2.1	<p>Starting/Accelerating Train</p> <p>A. On level and ascending grade:</p> <ul style="list-style-type: none">• Advance the throttle to a position sufficient to hold the train when necessary and verify that DP consist(s) are loading.• Release the automatic brake.• Use the lowest throttle position possible to start the train. It may be necessary to limit starting acceleration by use of the independent brake.• Allow the locomotive load meter to stabilize before advancing the throttle to the next higher position.• Once the train is moving, do not increase the throttle until the locomotive load meter stabilizes.• To accelerate, advance the throttle slowly, one notch at a time to avoid excessive draft forces.• In curved territory, use only enough power to start the train to reduce the possibility of string-lining in curves because of excessive lateral forces.• Trains operating with cut-in helper and/or rear helper should have the helper throttle setting higher than the head end consist.• If the train will not start, reapply brakes, reduce throttle to idle, and determine the cause. Applying power on a standing DC locomotive longer than necessary will damage traction motors. <p>B. On descending grade:</p> <ol style="list-style-type: none">1. With the independent brake fully applied, activate the dynamic brake.2. Release the automatic brake and wait for all brakes to release and slack to adjust. On heavy descending grades the automatic brakes may remain applied.3. Trains with cut-in helper and/or rear helper should have the throttle setting in idle or low throttle setting if the entire train is on descending grade.4. Gradually reduce the independent brake until the train begins to move.5. Release the independent brake as the dynamic brake becomes effective.6. Adjust dynamic brake on head consist to allow train to accelerate and to accelerate and on cut-in and/or rear helper to control speed and in-train forces.
--------	---

Rule Updated Date

May 2, 2016

[^Top](#)

34.2.2: Slowing or Controlling Speed

34.2.2	Slowing or Controlling Speed When slowing or controlling train speed, the following methods should be utilized (listed in preferred order): <ol style="list-style-type: none">1. Throttle modulation.2. Dynamic braking.3. Dynamic braking supplemented with train air brakes.4. Stretch braking.
--------	---

Rule Updated Date

May 2, 2016

[^Top](#)

34.2.3: Slowing/Controlling Speed on Level or Descending Grade, with Dynamic Brakes, Slack Bunched

34.2.3	Slowing/Controlling Speed on Level or Descending Grade, with Dynamic Brakes, Slack Bunched When slowing or controlling speed on level or descending grade with dynamic brakes, do the following: <ol style="list-style-type: none">1. If in power, gradually reduce the throttle to idle.2. To avoid excessive buff forces, activate the dynamic brake and gradually bunch the slack.3. Increase braking to the desired level.4. If necessary to control speed, make a minimum brake pipe reduction and further split reduction(s) as needed.5. When the speed is controlled and the automatic brake is released, maintain enough dynamic braking to keep the slack bunched until the brakes release throughout the train.
--------	---

Rule Updated Date

May 2, 2016

[^Top](#)

34.2.4: Stretch Braking

<p>34.2.4</p> <p>Reference Rule 33.1.3 34.5.1</p>	<p>Stretch Braking</p> <p>Stretch braking is permitted only where more fuel efficient methods will not provide the necessary control of slack and/or train speed. Stretch braking above throttle position 6 is prohibited.</p> <p>When it becomes necessary to apply the train brakes while in power, ensure that locomotive brakes do not apply and observe the following:</p> <ol style="list-style-type: none"> 1. Make the desired throttle adjustment sufficiently in advance to allow the slack to adjust. 2. After the slack has adjusted, make a minimum brake pipe reduction. 3. Reduce the throttle when tractive effort increases from the effect of the brake pipe reduction. If a portion of the train is on a grade, the drawbar force may increase rapidly, requiring further throttle reduction(s). 4. A distributed power train with cut-in helper and/or rear helper must not have a lower throttle setting than the head end consist. 5. Make additional brake pipe reductions as necessary. <p>If the entire train is on a descending grade and the train brakes must remain applied, it is permissible to use limited power to control train speed. Do not exceed throttle position 4, reducing throttle as necessary to prevent excessive tractive effort.</p> <p>Note: When operating a DP train in a DP Loss of Communication situation, plan ahead to avoid Stretch Braking. Stretch Braking in a Loss of Communication situation will cause a Comm Loss Idle Down on the DP remote consist.</p>
--	---

Rule Updated Date

May 2, 2016

[^Top](#)

34.2.5: Ascending Grade

<p>34.2.5</p>	<p>Ascending Grade</p> <p>When slowing or controlling speed on an ascending grade, do the following:</p> <ul style="list-style-type: none"> • Allow the grade to slow the train. • Reduce the throttle one notch at a time to maintain a slack-stretched condition. • If necessary, make automatic brake pipe reduction(s) to reduce speed.
----------------------	---

Rule Updated Date

January 20, 2012

[^Top](#)

34.2.6: Cresting Grade

34.2.6	<p>Cresting Grade</p> <p>When approaching and cresting a grade:</p> <ol style="list-style-type: none">1. Reduce the throttle as the lead locomotive crests the grade.2. On the lead consist, continue to reduce the throttle and/or apply dynamic brake when necessary to keep the speed from increasing or make slack adjustments.3. When cresting grade with cut-in help and or rear helper(s), reduce helper throttle consistent with good train handling to minimize in train forces, utilizing independent mode as needed. <p>When operating in heavy or mountain grades, refer to System Special Instructions and/or site specific train handling instructions for additional requirements.</p>
---------------	--

Rule Updated Date

May 2, 2016

[^Top](#)

34.2.7: Undulating Grade

34.2.7	<p>Undulating Grade</p> <p>On trains without entrained helper(s), when slowing or controlling speed on undulating grade:</p> <ol style="list-style-type: none">1. As the train approaches the undulation, reduce the throttle as necessary to control train speed.2. Reduce the throttle further as the head end of the train begins descending.3. Just before the head end of the train reaches the ascending grade, increase the throttle.4. Continue to increase the throttle as the train ascends the grade.5. Reduce the throttle as the rear of the train approaches the ascending grade. <p>On trains with cut-in and/or rear helper(s), do not operate DP trains in synchronous mode through undulations. When slowing or controlling speed on undulating grade:</p> <ol style="list-style-type: none">1. In undulating territory, distributed power trains should be operated in independent mode. (Site specific train handling instructions may apply).2. As the train crests the grade, reduce the throttle on head end consist as necessary to control train speed.3. Cut-in helper and/or rear helper should have the throttle setting higher than the head end consist.4. Reduce the throttle on head end consist as the head end of the train begins descending.
---------------	--

	<ol style="list-style-type: none"> 5. On trains with both cut-in helper and rear helper, when the cut-in helper crests the grade, move the fence so the head end consist and cut-in helper are in synchronous mode and rear helper is in independent mode. 6. Reduce the throttle setting on the rear helper, as needed when the rear helper crests the grade. 7. Just before the head end of the train reaches the bottom of the hill, increase the throttle on head end consist. 8. When the rear helper reaches the top of the grade, make sure the head end consist is at a higher throttle setting than the rear consist. 9. Continue to increase the throttle on head end consist as the train ascends the grade. 10. Gradually increase the throttle on rear consist until the throttle setting is greater than the lead consist. <p>Maintain sufficient power on the helper(s) to control slack. Site specific train handling instructions may apply.</p>
--	---

Rule Updated Date

May 2, 2016

[^Top](#)

34.2.8: Stopping

<p>34.2.8</p> <p>Reference Rule</p> <p>31.5</p> <p>34.5.1</p>	<p>Stopping</p> <p>A. Level or Descending Grade using Dynamic Brake</p> <p>When stopping on level or descending grade using dynamic brake:</p> <ol style="list-style-type: none"> 1. If in power, gradually reduce the throttle to idle. 2. Activate the dynamic brake and gradually bunch the slack. 3. At a sufficient distance from the stop, make a minimum brake pipe reduction. 4. Make further split reduction(s) as needed. 5. As dynamic brake retarding force decreases, apply independent brake to avoid slack run-out. <p>B. Level or Descending Grade without Dynamic Brake</p> <p>When stopping on level or descending grade:</p> <ol style="list-style-type: none"> 1. If in power, gradually reduce the throttle and wait for the slack to adjust. 2. At a sufficient distance from the stop, make a minimum brake pipe reduction. 3. Make further split reduction(s) as needed. 4. As the train comes to a stop, use no more independent brake than necessary to maintain a slack bunched condition. <p>C. Level or Ascending Grade, Slack Stretched</p>
--	--

	<p>When stopping on level or ascending grade:</p> <ol style="list-style-type: none"> 1. Gradually reduce the throttle. 2. Maintain sufficient power to keep slack stretched while allowing train to slow. 3. If necessary, make automatic brake pipe reduction(s) to reduce speed. 4. When train is approaching the stopping point, make a brake pipe reduction. 5. As train comes to a stop apply independent brake. 6. After the independent brake is fully applied, reduce the throttle to idle.
--	---

Rule Updated Date

May 2, 2016

[^Top](#)

34.2.9: Unplanned Stops

<p>34.2.9</p>	<p>Unplanned Stops</p> <p>A. Non-Emergency</p> <p>To stop in the shortest possible distance without using an emergency brake application, use the following procedure:</p> <ol style="list-style-type: none"> 1. Make a minimum brake pipe reduction before making a throttle change. When exhaust stops, make additional brake pipe reduction(s) as necessary. Consider train make-up when determining the amount of additional brake pipe reduction(s) necessary to stop train safely. <ul style="list-style-type: none"> • If train slack is stretched: <ol style="list-style-type: none"> 1. While brake pipe is exhausting, gradually reduce throttle. 2. Transition to dynamic brake, if conditions permit. • If train slack is bunched: <ol style="list-style-type: none"> 1. Gradually increase dynamic braking effort as train brakes become effective. 2. As brake pipe exhaust stops, make additional reduction(s) as necessary. 2. As train comes to a stop, apply independent brake. <p>B. Train Defect Detectors</p> <p>When a detector is actuated, train must be stopped as soon as possible consistent with requirements contained in System Special Instructions governing train defect detectors. The type of detector, train makeup, slack condition, location of switches, grade and track curvature must be considered.</p> <p>WARNING: Heavy brake applications may cause complete failure of a defective hot journal before train stops.</p>
----------------------	---

Rule Updated Date

May 2, 2016

[^Top](#)

34.2.10: Emergency Brake Applications

<p>34.2.10 <i>49 CFR</i> <i>232.407-f</i></p>	<p>Emergency Brake Applications</p> <p>When emergency braking is necessary to protect life or property, use the maximum braking effort available consistent with safe train handling techniques.</p> <p>A. Initiated by Engineer</p> <p>When conditions warrant, use an emergency brake application and comply with the following:</p> <ol style="list-style-type: none">1. Make an emergency brake application by moving the automatic brake valve handle quickly to EMERGENCY, and leave it there until the train or locomotive stops.2. Lift the red cover of the EMERGENCY SWITCH, and activate the emergency valve on the end-of-train device (EOT) if equipped.3. Actuate and hold the independent brake handle in the actuate position, then move the independent brake handle to a position in the application zone that will develop the desired brake cylinder pressure without sliding wheels or developing excessive buff or draft forces.4. If in power, return throttle to idle. <p>B. Initiated by Other Than Engineer</p> <p>Initiate an emergency brake application when:</p> <ul style="list-style-type: none">• Life or property is in danger. <p>or</p> <ul style="list-style-type: none">• The engineer does not respond to warnings or signals to reduce train speed or stop the train. <p>Crew members must know the location of the emergency brake valves.</p> <p>C. Undesired Emergency</p> <p>When an undesired emergency (UDE) brake application occurs, move the automatic brake valve handle to EMERGENCY until the train stops. Actuate and hold the handle in the actuate position, while moving the independent handle to a position in the application zone that will develop the desired brake cylinder pressure without sliding wheels or developing excessive buff or draft forces. Make throttle adjustments to control slack and prevent excessive buff or draft forces.</p> <p>After stopping, if operating conditions permit, place the automatic brake valve handle in RELEASE to release the brakes and help locate the air hose separation or other problems. Promptly notify dispatcher of the occurrence.</p>
--	--

Rule Updated Date

May 2, 2016

[^Top](#)

34.2.11: Shoving Equipment

34.2.11	<p>Shoving Equipment</p> <p>When shoving equipment, use the lowest throttle position possible to avoid jackknifing, wheel climb, or rail turnover.</p> <p>A. Starting on Level or Ascending Grade</p> <p>When starting a shoving movement on a level or ascending grade:</p> <ol style="list-style-type: none">1. Release the automatic brake, and wait for slack to adjust.2. Reduce the independent brake, and use the lowest possible throttle position to start the movement.3. As speed increases, reduce the independent brake until it is fully released.4. If you notice a significant increase in tractive effort or if train speed slows without a change in throttle position, stop immediately and determine the cause. <p>B. Starting on Descending Grade with Slack Stretched</p> <p>When starting a shoving movement on a descending grade with slack stretched:</p> <ol style="list-style-type: none">1. Ensure that the independent brake is fully applied.2. Activate the dynamic brake to full.3. Release the automatic brake, and wait for slack to adjust.4. Reduce the independent brake gradually as the train begins to move.5. Slowly release the independent brake as the dynamic brake becomes effective. <p>C. Stopping on Ascending Grade, Slack Bunched</p> <p>When stopping shoving movements on an ascending grade with the slack bunched, do the following:</p> <ol style="list-style-type: none">1. Use the lowest possible throttle position to maintain a slack bunched condition.2. At a sufficient distance from the stop, make a minimum brake pipe reduction.3. Make further split reduction(s) as needed.4. Observe tractive effort and reduce the throttle as necessary to avoid high buff forces.5. As the train stops, fully apply the independent brake.6. After the independent brake is applied, reduce the throttle to idle. <p>D. Stopping on Level or Descending Grade with Slack Stretched</p>
---------	--

	<p>When stopping shoving movements on level or descending grade with the slack stretched, do the following:</p> <ol style="list-style-type: none"> 1. If in power, gradually reduce the throttle to idle and allow the slack to adjust. 2. Activate the dynamic brake. If the dynamic brake is unavailable use the independent brake to maintain a slack-stretched condition. 3. Gradually increase braking to the desired level. 4. At a sufficient distance from the stop, make a minimum brake pipe reduction. 5. If needed, make further split reduction(s). <p>As the train comes to a stop, use independent brake as necessary to maintain a slack stretched condition.</p>
--	--

Rule Updated Date

May 2, 2016

[^Top](#)

34.2.12: Switching Movements

<p>34.2.12</p>	<p>Switching Movements</p> <p>When switching cars, the following must be considered:</p> <ol style="list-style-type: none"> 1. When starting, slowing, or stopping switching movements, gradually stretch or bunch slack. <ul style="list-style-type: none"> • When starting RCL movements, including light engine, use the "couple" setting. 2. Care must be taken to limit buff and draft forces and avoid damage to track and equipment when: <ul style="list-style-type: none"> • Using multiple locomotives in consist. • Switching with air brakes cut-in on one or more cars. 3. Do not use automatic brake to increase locomotive brake cylinder pressure.
-----------------------	---

Rule Updated Date

January 20, 2012

[^Top](#)

34.2.13: Disturbed Track/Temporary Speed Restrictions/Heat Restrictions

<p>34.2.13</p>	<p>Disturbed Track/Temporary Speed Restrictions/Heat Restrictions</p>
-----------------------	--

	<p>When proceeding through the limits of the track bulletin, radio speed restriction, or wherever instructed to comply with Rule 34.2.13, the engineer must use the following train handling techniques to minimize in-train forces when possible:</p> <ul style="list-style-type: none"> • Use throttle modulation or low dynamic brake amperage. • Avoid making slack adjustments. • Avoid applying or releasing automatic brakes. • Make power and brake adjustments before or after the restriction. <p>When operating with distributed power at the rear of the train:</p> <ul style="list-style-type: none"> • When in power, operate in synchronous mode or in independent mode with distributed power 1-3 throttle notches below the lead consist. • When in dynamic brake, operate in synchronous mode or in independent mode with distributed power 1-3 throttle positions above the lead consist.
--	--

Rule Updated Date

May 2, 2016

[^Top](#)

34.2.14: Thermal Misalignment

<p>34.2.14</p>	<p>Thermal Misalignment</p> <p>When an obvious thermal misalignment is observed ahead of a moving train, the train must be stopped, if possible, prior to the lead locomotive passing over the misaligned track. If the train cannot be stopped in time with service applications, to minimize additional buff forces imparted on the track, the preferred method for train handling is as follows:</p> <ul style="list-style-type: none"> • When the train is equipped with a two-way EOT, stop the train using the emergency toggle switch on the HED to place the train into emergency from the rear end and control slack. • When the train is equipped with distributed power, stop the train using a full service brake application.
-----------------------	---

Rule Updated Date

January 20, 2012

[^Top](#)

34.3: Grade Operations

<p>34.3</p>	<p>Grade Operations</p>
--------------------	--------------------------------

	<p>The following must be considered when operating in grade territory:</p> <ul style="list-style-type: none"> • Tons per operative brake. • Tons per dynamic brake axle. • Percent of grade. • Track curvature. • Rail and weather conditions. • Train speed, ensuring that maximum speed is consistent with grade limitations required by area timetables. • Train Make-Up. • Distributed Power Placement.
--	---

Rule Updated Date

May 2, 2016

[^Top](#)

34.3.1: Balance Braking

<p>34.3.1</p>	<p>Balance Braking</p> <p>When a constant speed on a grade is required for long distances, use a combination of train air brakes and dynamic brake as follows:</p> <ol style="list-style-type: none"> 1. Make a minimum brake pipe reduction when dynamic brake is not sufficient to maintain speed. 2. Use additional reductions until the desired speed is maintained. 3. If a greater than 18-psi brake pipe reduction is required to control train speed, stop the train using emergency application and inspect to determine reason before proceeding. Exception: If an 18-psi reduction is due to Equalizing Reservoir leakage, apply Item 4 below. 4. If equalizing reservoir leakage is discovered and speed is decreasing, stop and secure the train, if necessary. After placing the automatic brake handle in release, place the brake valve cutoff valve in PASSENGER, if equipped. While operating in PASSENGER, movement of the automatic brake valve handle toward RELEASE will release the brakes throughout the train. <p>When practicable, use a combination of train air brakes and dynamic brake to control speed when operating on descending grades exceeding 1.75%.</p>
----------------------	--

Rule Updated Date

January 20, 2012

[^Top](#)

34.3.2: Recharging on a Grade

<p>34.3.2</p>	<p>Recharging on a Grade</p> <p>When necessary to recharge the air brake system while stopped on a grade and the independent brakes may not hold the train:</p> <ol style="list-style-type: none"> 1. Apply a sufficient number of hand brakes. 2. Leave independent brake fully applied, and release the automatic brake. 3. Recharge the air brake system. 4. After recharging the system, make a sufficient brake pipe reduction to hold the train while releasing the hand brakes. <p>Do not apply power to hold a train stationary on a grade unless:</p> <ul style="list-style-type: none"> • All locomotive units in the consist are AC locomotives; <p style="text-align: center;">or</p> <ul style="list-style-type: none"> • When DC locomotive(s) in consist are isolated, remaining AC locomotives may be used to hold train.
----------------------	--

Rule Updated Date

January 20, 2012

[^Top](#)

34.4: Delayed Departure

<p>34.4</p> <p>Reference Rule 33.8.4</p>	<p>Delayed Departure</p> <p>When stopped and movement is delayed, apply train brakes with at least a 10-psi brake pipe reduction when operating conditions permit. (Does not apply to lite power consists when all locomotives are MU'd.)</p> <p>Do not release train brakes until ready to proceed except when:</p> <ul style="list-style-type: none"> • Stopped on a grade where it will be necessary to reapply the brakes or will not require the brakes to be released to start the train. • Charging the brake system in heavy or mountain grade territory. • Making air test and train movement is initiated within 10 minutes after releasing the train brakes.
---	---

	<p>When trains equipped with an operable EOT are stopped and movement delayed, before moving, verify brake pipe continuity by releasing the air brakes (unless on descending grade and the train brakes will remain applied), and observe an increase in pressure on the EOT prior to moving the train.</p> <p>Distributed power trains must use the automated train check feature to verify brake pipe continuity.</p> <p>Suspect trainline blockage when a decrease in pressure occurs at the rear of the train that has not been initiated by a brake pipe reduction; cause must be determined before departing:</p> <ul style="list-style-type: none"> • Inspect train for cause of blockage. • A visual observation of a set and release at the rear car is sufficient to determine that no blockage exists. <p>If excessive tractive effort is needed (based on existing conditions) to start the train, inspect the train to determine the cause.</p>
--	--

Rule Updated Date

May 2, 2016

[^Top](#)

34.5: Car Air Brakes

34.5 Car Air Brakes

Rule Updated Date

January 20, 2012

[^Top](#)

34.5.1: Applying or Reapplying Automatic Brakes

34.5.1	<p>Applying or Reapplying Automatic Brakes</p> <p>When applying or reapplying automatic brakes, make brake pipe reductions according to these guidelines:</p> <ul style="list-style-type: none"> • Make a minimum reduction followed by additional reductions, as necessary. • Charged condition of brake pipe must be considered before reapplying air brakes. • Make a final reduction when operating conditions permit as train is nearing a stop to prevent a run out of slack.
---------------	---

	To prevent the locomotive brakes from applying during an automatic brake application, the independent brake valve handle must be actuated (bailed) when application is made and held in ACTUATE position until exhaust ceases.
--	--

Rule Updated Date

January 20, 2012

[^Top](#)

34.5.2: Releasing Brakes

<p>34.5.2</p>	<p>Releasing Brakes</p> <p>Before releasing the brakes, consider the following conditions to avoid damage to equipment, lading, or track:</p> <ul style="list-style-type: none"> • Train speed. • Train makeup. • Weather conditions. • Physical characteristics of territory. • Amount of brake pipe reduction. <p>Running release of the automatic train brakes must not be made when brake application is 18-psi or greater.</p> <p>When operating conditions allow releasing the brakes allow the exhaust at the automatic brake valve to stop before releasing the train brakes.</p>
----------------------	---

Rule Updated Date

May 2, 2016

[^Top](#)

34.5.3: Unintentional Brake Release

<p>34.5.3</p> <p><i>49 CFR</i> <i>232.103</i></p> <p>Reference Rule 32.7.1</p>	<p>Unintentional Brake Release</p> <p>If an unintentional brake release occurs while the brakes are applied, stop the train and determine the cause before proceeding. Promptly notify dispatcher of the occurrence.</p>
---	---

Rule Updated Date

January 20, 2012

[^Top](#)

34.5.4: Regulating Valve Braking

34.5.4	Regulating Valve Braking Use of the regulating valve to control braking is prohibited.
--------	--

Rule Updated Date

January 20, 2012

[^Top](#)

34.5.5: Retaining Valves

34.5.5	Retaining Valves Retainers may only be used after consulting with a Manager of Operating Practices for the location involved. When retaining valves are used: <ul style="list-style-type: none">• Retaining valves must be set in the "HP" (High Pressure) position on the entire train.• Do not exceed 15 MPH.• Freight car brake cylinder pressure is not retained until a brake pipe reduction of at least 10-psi has been made and released. Further brake pipe reductions will add to this pressure in the brake cylinder. When retaining valves are not in use, place them in EX (Exhaust).
--------	--

Rule Updated Date

January 20, 2012

[^Top](#)

34.5.6: Use of Automatic Brakes During Cold Weather Conditions

34.5.6 <i>49 CFR 232.107</i>	Use of Automatic Brakes During Cold Weather Conditions During extreme cold weather, (below 10 degrees F) when operating conditions and site-specific instructions permit, throttle manipulations and dynamic braking must be used in lieu of train air brakes whenever possible in controlling and stopping freight trains.
-------------------------------------	---

Rule Updated Date

May 2, 2016

[^Top](#)

34.6: Locomotive Operation

34.6 Locomotive Operation

Rule Updated Date

January 20, 2012

[^Top](#)

34.6.1: Independent Brake (Locomotive Brake)

34.6.1	Independent Brake (Locomotive Brake) Use of the independent brake valve: <ul style="list-style-type: none">• The independent brake valve on the controlling unit must be cut-in at all times, and the handle must not be blocked in actuate position.• The independent brake must not be applied while power or dynamic brake is being used except when starting, stopping, or to control wheel slips at speeds below 15 MPH.• When conditions require the independent brakes to be applied, brake cylinder pressure must be controlled to prevent overheating or sliding of the locomotive wheels, excessive slack action and high in-train forces. The independent brake must not be used when the same results can be obtained with the dynamic brake.• When controlling the independent brake during an emergency brake application, actuate while applying the independent brake to the desired pressure, without sliding the locomotive wheels. When emergency brake cylinder pressure is desired, release the handle from the actuate position.• The maximum independent brake cylinder pressure indicated for locomotive must not be exceeded.
---------------	--

Rule Updated Date

January 20, 2012

[^Top](#)

34.6.2: Throttle and Reverser Positions

34.6.2	<p>Throttle and Reverser Positions</p> <p>With the throttle open, the generator field switch must never be closed or moved to the "ON" position.</p> <p>When moving, reverser handle must not be in a position other than the direction of travel, except when loading a bulk commodity unit train.</p> <p>Reverser must be centered when locomotive is stopped. However, reverser may be left in forward position when train is stopped in ATC or ACS territory at locations where next signal is not visible.</p>
---------------	--

Rule Updated Date

January 20, 2012

[^Top](#)

34.6.3: Dynamic Braking

<p>34.6.3</p> <p><i>49 CFR 232.109</i></p>	<p>Dynamic Braking</p> <p>When using dynamic brake, comply with the following:</p> <ul style="list-style-type: none"> • When lead or remote consist includes a DC locomotive, pause for 10 seconds in idle before changing from power to dynamic braking. • Do not supplement the dynamic brake with the locomotive brakes unless in the process of starting or stopping and speed is below the effective range of the dynamic brakes in your locomotive consist. • Comply with Equivalent Dynamic Brake Axle limitations by cutting out trailing locomotives(s) or traction motor(s). • Approaching and operating through turnouts or disturbed track areas with train's air brakes released, limit braking force to 50% of maximum. Continue to limit the braking effort until at least half the train has passed the restricted area.
---	---

Rule Updated Date

May 2, 2016

[^Top](#)

34.6.4: Short Time Rating/Minimum Continuous Speed

<p>34.6.4</p>	<p>Short Time Rating/Minimum Continuous Speed</p> <p>A. Short Time Rating</p>
----------------------	---

	<p>Short time rating limits for DC locomotives when necessary, are indicated on rating plate located near or on the load meter; short time rating must not be exceeded.</p> <p>If the locomotive exceeds the short time rating, stop the train and double the train over the grade or allow traction motors time to cool before continuing, unless otherwise instructed.</p> <p>To provide for sufficient cooling of traction motors, allow the locomotive a minimum of 20 minutes without a short time event.</p> <p>B. Minimum Continuous Speed</p> <p>Minimum continuous speed is the slowest speed at which a DC locomotive can operate continuously in throttle position 8 before overheating. The minimum continuous speed varies and is indicated by the rating plate on the locomotive.</p>
--	--

Rule Updated Date

January 20, 2012

[^Top](#)

34.6.5: Penalty Brake Application

<p>34.6.5</p> <p><i>49 CFR</i></p> <p><i>236.501</i></p> <p><i>236.503</i></p> <p><i>236.507</i></p> <p><i>236.511</i></p> <p><i>236.564</i></p> <p><i>238.237</i></p>	<p>Penalty Brake Application</p> <p>A penalty brake application may be initiated by one of the following safety control devices:</p> <ul style="list-style-type: none"> • Alertness Device. • Overspeed. • Cab Signal. <p>If a safety control device sounds a warning or when a penalty brake application occurs, comply with the following:</p> <ol style="list-style-type: none"> 1. Move automatic brake valve handle to SUPPRESSION position. 2. Hold the independent brake handle in the actuate position. Move the independent handle to a position in the application zone that will develop the desired brake cylinder pressure without sliding wheels or developing excessive buff or draft forces. <p>After train stops, reset PCS and release brakes when operating conditions allow.</p>
---	--

Rule Updated Date

January 20, 2012

[^Top](#)

[Union Pacific Rules](#)

[Air Brake and Train Handling Rules](#)

35.0: Remote Control Operations Chapter 35

- [35.0: Remote Control Operations](#)
- [35.1: Reference Materials](#)
- [35.2: Remote Control Area](#)
- [35.3: Equipment](#)
- [35.3.1: Operator Equipment](#)
- [35.3.2: Remote Control Mode](#)
- [35.3.3: Setup and Testing](#)
- [35.3.4: RCL Strobe Lights](#)
- [35.4: Operation](#)
- [35.4.1: Man-down Transmission](#)
- [35.4.2: Remote Control Transmitter Attachment](#)
- [35.4.3: "Pitch and Catch" Operations](#)
- [35.4.4: Operating the Equipment](#)
- [35.4.5: RCL Fails to Respond to Stop Command](#)
- [35.5: Securement](#)
- [35.5.1: Securing Remote Control Equipment](#)
- [35.6: RCL Zone](#)
- [35.6.1: Positive Stop Protection \(PSP\)](#)
- [35.6.2: Overriding PSP](#)
- [35.6.3: Disabling PSP](#)
- [35.6.4: RCL Zones with Road Crossing Equipped with Cameras](#)
- [35.7: Main Track](#)
- [35.7.1: Remote Control Main Track Operation](#)

35.0: Remote Control Operations

35.0 Remote Control Operations

Rule Updated Date

January 20, 2012

[^Top](#)

35.1: Reference Materials

35.1 Quick Reference Cards: PB-14251 (G.E.) PB-14252 (Cattron)	Reference Materials Employees who set-up or operate remote control equipment must be familiar with the requirements and instructions for the type of system they will operate. While on duty, remote control operators must have the Remote Control Quick Reference Card available for the type of system they are operating.
---	--

Rule Updated Date

May 2, 2016

[^Top](#)

35.2: Remote Control Area

35.2 Reference Rule 6.7	Remote Control Area Designated Remote Control Areas Timetable Special Instructions will designate areas of remote control operations. Signs advising that remote control operations may be in effect will be posted at access locations to remote control areas.
--	--

Rule Updated Date

May 2, 2016

[^Top](#)

35.3: Equipment

35.3 Equipment

Rule Updated Date

January 20, 2012

[^Top](#)

35.3.1: Operator Equipment

<p>35.3.1</p>	<p>Operator Equipment</p> <p>Remote control operators must utilize the following equipment:</p> <ul style="list-style-type: none"> • A Union Pacific approved vest designed to hold a remote control transmitter(RCT). <ul style="list-style-type: none"> • RCT must be securely attached to vest by using all 4 "D" rings. • The RCL vest must be worn as the outermost garment. • At least one approved hands-free light. In case of failure, a lantern may be used in place of the hands-free light. • A hand-held radio equipped with a wired microphone. Radio must be affixed to a belt with a holster or radio clip. <p>Remote Control Transmitters are considered safety devices. Employees are prohibited from tampering with or disabling any remote control transmitter or safety feature except as provided for in RCO rules. Employees are prohibited from knowingly using a remote control transmitter with a disabled safety device.</p>
----------------------	--

Rule Updated Date

May 2, 2016

[^Top](#)

35.3.2: Remote Control Mode

<p>35.3.2</p> <p>Reference Rule 5.13</p>	<p>Remote Control Mode</p> <p>Each locomotive in the remote control consist must have a tag placed in a visible location on the control stand indicating the locomotive is being used in remote control mode. Remove tag from console when the locomotive is placed in manual mode.</p>
---	--

Rule Updated Date

May 2, 2016

[^Top](#)

35.3.3: Setup and Testing

<p>35.3.3</p> <p>Quick Reference Cards:</p>	<p>Setup and Testing</p> <p>Prior to operating a remote control system, the RCO must ensure the equipment is properly setup and tested in accordance with prescribed procedures.</p>
--	---

PB-14251 (G.E.) PB-14252 (Cattron)	<p>If an RCL job is bulletined for two crew members, two transmitters must be linked and remained linked for the duration of the shift.</p> <p>When two remote control transmitters are utilized, the conductor/foreman must always link as "Operator A" and the second operator as "Operator B."</p> <p>A single crew member may link 2 transmitters to an RCL. If the second operator is not ready to accept control of the transmitter after the required testing, the transmitter must be placed in sleep or dismissal mode and kept inside of the RCL being operated.</p>
--	--

Rule Updated Date

May 2, 2016

[^Top](#)

35.3.4: RCL Strobe Lights

35.3.4	<p>RCL Strobe Lights</p> <p>Strobe lights must be on during Remote Control Operations.</p> <p>If RCL strobe light(s) fail during a tour of duty, the locomotive may be used until end of the shift or the next daily inspection, whichever occurs first. Strobe light(s) must be repaired before locomotive can be used as a controlling locomotive in remote service.</p>
---------------	---

Rule Updated Date

May 2, 2016

[^Top](#)

35.4: Operation

35.4	Operation
-------------	------------------

Rule Updated Date

January 20, 2012

[^Top](#)

35.4.1: Man-down Transmission

35.4.1	Man-down Transmission
---------------	------------------------------

	<p>Radio communications must be monitored for man-down messages transmitted by remote control locomotive radios.</p> <p>At locations with supervisors assigned to monitor RCL transmissions, when a man-down message is transmitted, the supervisor will immediately attempt to contact the crew whose RCL locomotive has transmitted the message. If unable to determine the reason for the man-down message, 911 must be called immediately.</p> <p>At locations where no supervisor is assigned to monitor RCL transmissions, employees hearing a man-down message must determine the reason for the transmission and take appropriate action. This does not relieve or prevent any employee from declaring an emergency and contacting 911 when such a message is heard.</p> <p>Employees must follow local emergency procedures when man-down message is transmitted.</p>
--	--

Rule Updated Date

May 2, 2016

[^Top](#)

35.4.2: Remote Control Transmitter Attachment

35.4.2	<p>Remote Control Transmitter Attachment</p> <p>Before operating an RCL after an RCT has been attached to a vest, lean forward with RCT hanging freely until tilt warning is activated, then upright the RCT before timing out. Test may be performed in conjunction with Man Down Broadcast Message test during linking process.</p> <p>When transferring linked RCT's to another crew, transfer RCT "A" to the foreman/conductor and RCT "B" to the switchman/brakeman.</p>
---------------	--

Rule Updated Date

May 2, 2016

[^Top](#)

35.4.3: "Pitch and Catch" Operations

35.4.3	<p>"Pitch and Catch" Operations</p> <p>Either operator may initiate transfer of control after verbally verifying the secondary operator is in position to assume control.</p> <p>Remote Control Transmitters must not be placed in "sleep" or "dismissal" mode in lieu of pitch and catch operation.</p>
---------------	---

Rule Updated Date

May 2, 2016

[^Top](#)

35.4.4: Operating the Equipment

<p>35.4.4</p> <p>Reference Rule 34.2.12 35.5.1</p>	<p>Operating the Equipment</p> <p>When operating RCL equipment, comply with the following:</p> <ul style="list-style-type: none">• Only licensed operators or RCO students may operate an RCT. Students or class 7 operators MUST be accompanied by a current class 6 operator.• An RCO will control only one linked RCL consist at a time.• Linked transmitters that are not in sleep or dismissal mode must be worn by the operator except when the RCL is placed in short or long term securement.• Do not operate Remote Control Transmitter from a vehicle.• Use "couple" setting when starting all movements, including light engine moves.• When handling cars, limit excessive buff and draft forces by moving the speed selector one setting at a time, unless kicking cars or during an emergency conditions. (Moving the speed selector from any setting to the coast or coast B position is acceptable).• After initial light engine movement is made in Couple speed, the speed selector may be moved directly to desired speed setting.• Except in an emergency, all stops must be made using the Stop command on the speed selector• After a penalty or emergency application of the brakes, if excessive power is required to start or continue movement, stop and inspect that equipment is properly positioned on the rail and the brakes are released.• Remote Manual Switch (RMS) or system setup must not be changed until locomotive is stopped
---	---

Rule Updated Date

May 2, 2016

[^Top](#)

35.4.5: RCL Fails to Respond to Stop Command

<p>35.4.5</p>	<p>RCL Fails to Respond to Stop Command</p> <p>If the locomotive fails to respond properly to a stop command from the remote control transmitter, the RCO must:</p> <ol style="list-style-type: none">1. Place RCT in emergency.2. Immediately power off the transmitter or remove RCT battery.
----------------------	---

	The RCO must then secure the equipment including the transmitter. The RCO must contact the manager on duty and not attempt to operate the locomotive until authorized by a DSRCO or Mechanical Department employee.
--	---

Rule Updated Date

January 20, 2012

[^Top](#)

35.5: Securement

35.5	Securement
------	------------

Rule Updated Date

January 20, 2012

[^Top](#)

35.5.1: Securing Remote Control Equipment

<p>35.5.1</p> <p>Reference Rule 31.8.7.1 32.2.1</p>	<p>Securing Remote Control Equipment</p> <p>Remote control locomotives and remote control transmitter(s) must not be left unsecured. At the end of a shift, RCT's must be unlinked and stored in a locked cabinet and battery placed in charger unless transferred directly to another RCL job.</p> <p>A. Short Term Securement (90 minutes or less)</p> <p>The RCO will secure the remote control locomotive as follows:</p> <ol style="list-style-type: none"> 1. Isolate and apply hand brakes on all locomotives. 2. Perform securement check and make a Full Set using the automatic brake selector before turning off the remote control transmitter. 3. RCO must either maintain possession or secure the transmitter(s). 4. When equipment will be left for more than 15 minutes, comply with locomotive shutdown requirements. <ul style="list-style-type: none"> • Leave the Control and RCL circuit breakers ON and main battery switch closed to maintain the link. • If linked to a control car or slug, the battery switch on the conventional unit must be closed to maintain the power supply. <p>B. Long Term Securement (more than 90 minutes) or Ending Tour of Duty</p> <p>The RCO will secure the remote control locomotive as follows:</p> <ol style="list-style-type: none"> 1. Isolate and secure consist.
--	---

	<ol style="list-style-type: none"> 2. Leave the RCL breaker on. 3. Place RCL in MANUAL mode as outlined in the RCL Technical Guide. 4. Remove remote control warning sign(s). 5. Ensure that one locomotive is set-up for lead unit operation. 6. Secure locomotive per Rule 32.2.1. 7. Shut down the locomotive(s) as required.
--	--

Rule Updated Date

May 2, 2016

[^Top](#)

35.6: RCL Zone

35.6	RCL Zone
-------------	-----------------

Rule Updated Date

January 20, 2012

[^Top](#)

35.6.1: Positive Stop Protection (PSP)

35.6.1	Positive Stop Protection (PSP)
Reference Rule 6.5.1 6.7 35.6.2	RCL jobs utilizing an active RCL zone must verify the PSP is operational on initial movement into that RCL zone. Verification is also required after PSP has been overridden or disabled before it can be depended on to stop the locomotive again. Receiving a remote control transmitter message when entering the limits verifies PSP is functioning properly.

Rule Updated Date

May 2, 2016

[^Top](#)

35.6.2: Overriding PSP

35.6.2 Quick Reference Cards:	Overriding PSP
---	-----------------------

PB-14251 (G.E.) PB-14252 (Cattron)	Use procedures in the RCL Reference Card to override and reactivate PSP for each RCL system. When PSP is overridden, point protection must be provided.
---------------------------------------	--

Rule Updated Date

May 2, 2016

[^Top](#)

35.6.3: Disabling PSP

35.6.3	Disabling PSP PSP may only be disabled in the event of GPS or PSP failure.
---------------	--

Rule Updated Date

January 20, 2012

[^Top](#)

35.6.4: RCL Zones with Road Crossing Equipped with Cameras

35.6.4 Reference Rule 6.32	RCL Zones with Road Crossing Equipped with Cameras When using cameras for movements over road crossings, movement must not exceed 4 MPH until crossing is occupied. RCO must observe the monitors to ensure that automatic crossing warning devices activate and remain active until the crossing is occupied. If cameras are not used or are inoperative, employee must provide warning at the crossing.
---	--

Rule Updated Date

May 2, 2016

[^Top](#)

35.7: Main Track

35.7	Main Track
-------------	-------------------

Rule Updated Date

January 20, 2012

[^Top](#)

35.7.1: Remote Control Main Track Operation

35.7.1	<p>Remote Control Main Track Operation</p> <p>Main track movements include train movements, yard transfers, etc.; it does not include doubling a train together, using the main track for head room or adding cars to a train on the main track, i.e., switching movements.</p> <p>When main track movements exceed 2 miles, do not exceed the following limits:</p> <ul style="list-style-type: none">• 12 equivalent powered axles (EPA).• 60 cars/platforms/wells.• 4,000 tons.
--------	---

Rule Updated Date

September 15, 2015

[^Top](#)

[Union Pacific Rules](#)

[Air Brake and Train Handling Rules](#)

36.0: Positive Train Control Chapter 36

- [36.0: Reserved for PTC Operations](#)

36.0: Reserved for PTC Operations

Reserved for PTC Operations

Rule Updated Date

January 20, 2012

[^Top](#)

[Union Pacific Rules](#)

[Air Brake and Train Handling Rules](#)

37.0: Reserved for Future Use - Chapter 37

- [37.0: Reserved for Future Use](#)

37.0: Reserved for Future Use

Reserved for Future Use

Rule Updated Date

January 20, 2012

[^Top](#)

[Union Pacific Rules](#)

[Air Brake and Train Handling Rules](#)

38.0: Commuter/Business Train Operations - Chapter 38

- [38.0: Commuter/Business Train Air Brake Rules](#)
- [38.1: Passenger Equipment Inspections](#)
- [38.1.1: Inspections and Brake Tests](#)
- [38.1.2: Class I Brake Test](#)
- [38.1.3: Class IA Brake Test](#)
- [38.1.4: Class II Brake Test](#)
- [38.1.5: Running Brake Tests](#)
- [38.2: Commuter Operation Air Brake Test and Inspections](#)
- [38.2.1: Air Brake Test Requirements](#)
- [38.2.2: Procedure for a Running Brake Test](#)
- [38.2.3: Changing Operating Ends on Trains Equipped with Cab Cars](#)
- [38.2.4: Parking Brake and Hand Brakes](#)
- [38.2.5: Using Blended Braking](#)
- [38.3: Operative Brakes](#)
- [38.3.1: Defective Train Brakes](#)
- [38.3.2: Operative Brake Conditions](#)
- [38.3.3: Operable Brakes](#)
- [38.3.4: Defective Brake Chart](#)

38.0: Commuter/Business Train Air Brake Rules

38.0 Commuter/Business Train Air Brake Rules

Rule Updated Date

January 20, 2012

[^Top](#)

38.1: Passenger Equipment Inspections

38.1	Passenger Equipment Inspections Inspect and test passenger equipment according to Federal Railroad Administration (FRA) regulations contained within these rules.
-------------	---

Rule Updated Date

January 20, 2012

[^Top](#)

38.1.1: Inspections and Brake Tests

38.1.1	<p>Inspections and Brake Tests</p> <p>Inspections and brake tests must be performed on commuter/business passenger trains by a Qualified Maintenance Person or by a Qualified Person.</p> <ul style="list-style-type: none">• Only a Qualified Maintenance Person may perform a Class I brake test.• Either a Qualified Maintenance Person or a Qualified Person may perform a Class IA or a Class II brake test.
---------------	---

Rule Updated Date

January 20, 2012

[^Top](#)

38.1.2: Class I Brake Test

38.1.2 <i>49 CFR</i> <i>238.313</i> Reference Rule 30.2.4	<p>Class I Brake Test</p> <p>Class I Test Requirements</p> <p>Except as provided in these rules, a train may not be used in passenger service or hauled from a location where a Class I brake test has been performed, or was required to have been performed, with less than 100% operative brakes. A Class I brake test must be conducted on commuter/business passenger trains:</p> <ul style="list-style-type: none">• Once each calendar day that the train is placed or continues in service.• On each car added to a train at the time it is added to a train, unless documentation is provided to the train crew that a Class I brake test was performed on the car on that calendar day, and the car has not been disconnected from a source of compressed air for more than four hours prior to being added to the train. However, a Class IA test may be conducted on the car in lieu of the above.• The test may be performed in conjunction with the calendar day exterior mechanical inspection.• Except as provided in these rules, a train may not be used in passenger service or hauled from a location where a Class I brake test has been performed, or was required to have been performed, with less than 100% operative brakes. <p>Note: Test may be performed in conjunction with the calendar day exterior mechanical inspection.</p>
--	---

	<p>Notification of Completed Test</p> <p>A Qualified Maintenance Person that performs a Class I brake test on a train may notify the crew of the Class I brake test or place a written statement in the rear cab car's B-1 locker until the next Class I brake test is performed. The statement must contain:</p> <ul style="list-style-type: none"> • The date and the time the Class I brake test took place. • The location where the test was performed. • The identification number of the controlling locomotive of the train. • The total number of cars inspected during the Class I brake test. • The signature or employee ID of the inspector.
--	---

Rule Updated Date

May 2, 2016

[^Top](#)

38.1.3: Class IA Brake Test

<p>38.1.3</p> <p><i>49 CFR</i> <i>238.315</i></p> <p>Reference Rule 38.2.1</p>	<p>Class IA Brake Test</p> <p>When to Perform a Class IA Brake Test</p> <p>Either a Class I or Class IA brake test must be performed prior to the first calendar day departure of each commuter/business passenger train, unless all of the following conditions are satisfied:</p> <ul style="list-style-type: none"> • A Class I brake test was performed within the previous 12 hours. • The train has not been used in commuter/business service since the performance of the Class I brake test. • The train has not been off a compressed air source for more than four hours since the performance of the Class I brake test. • A commuter/business train that provides continuing late night service that began prior to midnight may complete its daily operating cycle without performing another Class I or Class IA brake test. A Class I or Class IA test must be performed on such a train before it starts a new daily operating cycle. <p>Either a Class I or Class IA brake test must be performed prior to placing a commuter/business passenger train in service that has been off air for more than four hours.</p>
---	---

Rule Updated Date

May 2, 2016

[^Top](#)

38.1.4: Class II Brake Test

<p>38.1.4 <i>49 CFR</i> <i>238.317</i> Reference Rule 38.2.1</p>	<p>Class II Brake Test When to Perform a Class II Brake Test</p> <p>A Class II brake test must be performed on a commuter/business passenger train when any of the following events occur:</p> <ul style="list-style-type: none">• Whenever the control stand used to control the train is changed or any time the controlling end is cut-out and then cut back in.• Prior to the first calendar day departure where a Class I brake test remains valid.• When cars that have received a Class I brake test within the previous calendar day and have not been disconnected from a source of compressed air for more than four hours are added to the train.• When cars or equipment are removed from the train.• Before a train enters the main track when a crew first takes charge of the train, except for face-to-face relief.
---	---

Rule Updated Date

May 2, 2016

[^Top](#)

38.1.5: Running Brake Tests

<p>38.1.5 <i>49 CFR</i> <i>238.319</i></p>	<p>Running Brake Tests When to Perform Test</p> <p>As soon as conditions safely permit, a running brake test must be performed on a commuter/business train after the train has departed a point where:</p> <ul style="list-style-type: none">• A Class I, Class IA, or Class II brake test was performed.• Any angle cocks or cutout cocks have been closed.• A train has struck debris on the track.• A train reaches a point designated by the timetable or special instructions.• Locomotive or operating ends have been changed.• Crew changes are located.• Movement is being controlled with a back-up hose or valve. The back-up hose or valve must be used to conduct the test.
---	--

Rule Updated Date

May 2, 2016

[^Top](#)

38.2: Commuter Operation Air Brake Test and Inspections

38.2	Commuter Operation Air Brake Test and Inspections
------	---

Rule Updated Date

January 20, 2012

[^Top](#)

38.2.1: Air Brake Test Requirements

Passenger Air Brake Tests											
Type of Test	Perform Walking Inspection	Brake pipe pressure set at 90-psi ⁴	Leakage test as required per rule 30.11.2 Part B. Leakage must not exceed 5 lbs/min.	20-psi brake pipe reduction	Check that brake shoes are properly fastened and seated against the wheel. Brake rigging does not bind or foul. Angle cocks are properly positioned.		When notified, release the brakes. Proper release of the brakes can be determined by observation of the clearance between the brake shoe and the wheel.		Verify brake pipe pressure changes at rear of train by observing gauge during application and release of rear car ⁵	Verify the communicating signal system is tested and known to be operating as intended. Any one of the following meet this requirement: two-way radio system, electrical line (buzzer) or PA system.	Verify the emergency brake application and deadman pedal or other emergency control devices function as intended.
					All cars	Car(s) picked up	All cars	Car(s) picked up			
Class I ¹	X	X	X	X	X	X	X	X	X	X	X
Class IA ²	X	X	X	X	X	X	X	X		X	
Class II ²		X		X					X	X	
Running Test	Perform the test as follows: <ol style="list-style-type: none"> 1. Leave power in low throttle position. 2. If operating from the locomotive, actuate the independent brake. 3. Apply the train air brakes with enough force to determine the brakes are operating properly. 4. If the train brakes are operating properly, release the brakes and proceed. <p>If the air brakes do not operate properly, stop the train and contact Commuter Control or the Train Dispatcher for instructions. Be governed by the instructions in Defective Train Brake procedures (Rule 38.3.4).</p>										

¹Cars must be inspected by a Qualified Maintenance Inspector.

²Cars must be inspected by a Qualified Maintenance Inspector or Qualified Person.

³Cars added enroute must be tested as outlined above. Cars are set out—determine that brake pipe pressure at the rear car has been restored.

⁴As indicated by the brake pipe gauge on the engine or cab car where the air brakes are being controlled.

⁵A qualified maintenance person (or qualified person only if gauge is not available) can verify the application and release by

observing a brake shoe on the rear car.
49 CFR 238.313 / 238.315 / 238.317 / 238.319

Rule Updated Date

May 2, 2016

[^Top](#)

38.2.2: Procedure for a Running Brake Test

<p>38.2.2 <i>49 CFR</i> <i>238.319</i> Reference Rule 38.1.4</p>	<p>Procedure for a Running Brake Test</p> <p>Conduct the Running Brake Test as follows:</p> <ul style="list-style-type: none">• Perform the test as soon as the train has enough speed to prevent stalling.• Use the train's automatic brake.• Do not use blended braking during the running test. <p>Perform the test as follows:</p> <ol style="list-style-type: none">1. Leave power in low throttle position.2. If operating from the locomotive, actuate the independent brake.3. Apply the train air brakes with enough force to determine the brakes are operating properly.4. If the train brakes are operating properly, release the brakes and proceed. <p>If the air brakes do not operate properly, stop the train and contact Commuter Control or the Train Dispatcher for instructions. Be governed by the instructions in Defective Train Brake procedures.</p>
---	--

Rule Updated Date

May 1, 2014

[^Top](#)

38.2.3: Changing Operating Ends on Trains Equipped with Cab Cars

<p>38.2.3 Reference Rule 38.2.1</p>	<p>Changing Operating Ends on Trains Equipped with Cab Cars</p> <p>Use the procedures listed below to change operating ends on a commuter train.</p> <p>A. Cut-Out Operating Controls on a Locomotive or Cab Car</p> <p>Cutting out controlling locomotive:</p> <ol style="list-style-type: none">1. Apply sufficient hand brake(s) to hold train.
--	--

2. Fully apply the independent brake.
3. Make a 20-psi brake pipe reduction.
4. Move the independent brake handle to release without actuating.
5. Cut-out the automatic brake valve.
6. Place the automatic brake valve handle in handle off position.
7. Remove the reverser.
8. Place switches and breakers in proper positions.

Cutting out controlling Cab Car:

1. Apply sufficient hand brakes to hold train.
2. Fully apply the parking brake.
3. Make a 20-psi brake pipe reduction.
4. Cut-out the automatic brake valve.
5. Place the automatic brake valve handle in handle off position.
6. Release the parking brake.
7. Remove the reverser.
8. Place switches and breakers in proper positions.

B. Cutting in Operating Controls on Locomotive or Cab Car

Cutting in controlling locomotive:

1. Fully apply the independent brake.
2. Place the automatic brake valve handle in release.
3. Cut-in the automatic brake valve.
4. Insert the reverser.
5. Place switches and breakers in proper positions.
6. Release hand brake(s).

Cutting in controlling Cab Car:

1. Fully apply the parking brake.
2. Place the automatic brake valve handle in release.
3. Cut-in the automatic brake valve.
4. Insert the reverser.
5. Place switches and breakers in proper positions.
6. Release hand brake(s).

Rule Updated Date

October 26, 2012

[^Top](#)

38.2.4: Parking Brake and Hand Brakes

38.2.4	<p>Parking Brake and Hand Brakes</p> <p>A. Parking Brake</p> <p>Cab cars are equipped with a parking brake that has two positions:</p> <ul style="list-style-type: none">• Released.• Fully applied. <p>When the cab car automatic brake is cut-out, the parking brake is inoperative.</p> <p>Except in an emergency, do not use the parking brake to slow or stop a train. It must be determined that the parking brake is released on the cab car prior to initiating movement.</p> <p>B. Hand Brakes</p> <p>It must be determined that hand brakes are released on all cars and locomotives prior to initiating movement.</p>
--------	--

Rule Updated Date

January 20, 2012

[^Top](#)

38.2.5: Using Blended Braking

38.2.5 <i>49 CFR</i> <i>238.231</i>	<p>Using Blended Braking</p> <p>Locomotives may be equipped with a combination air brake and dynamic brake system called blended braking. If so equipped, blended braking is the preferred method of slowing and stopping the train. The amount of blended braking varies with speed and amount of air brake application.</p> <p>Blended braking will occur with an automatic brake application if:</p> <ul style="list-style-type: none">• Blended brake cut-out switch is ON.• Throttle is in IDLE.• Independent brake valve handle on the locomotive is released and not actuated.
---	--

Rule Updated Date

January 20, 2012

[^Top](#)

38.3: Operative Brakes

38.3	Operative Brakes
------	------------------

Rule Updated Date

January 20, 2012

[^Top](#)

38.3.1: Defective Train Brakes

38.3.1 <i>49 CFR</i> <i>238.15</i>	Defective Train Brakes Commuter/business equipment that develops inoperative brakes en route may be moved in compliance with Rule 38.3.4 when a tag or card is placed on both sides of the defective passenger equipment. The information on the tag or card must include: <ul style="list-style-type: none">• Equipment number.• Railroad.• Location.• Date.• Nature of defect.• Destination for repair.• Legible signature and title of person reporting the defect.
---	--

Rule Updated Date

May 2, 2016

[^Top](#)

38.3.2: Operative Brake Conditions

38.3.2 <i>49 CFR</i> <i>238.15</i>	Operative Brake Conditions The following brake conditions do not render car air brakes inoperative for the purpose of calculating operative brakes: <ul style="list-style-type: none">• Failure or cutting out of dynamic or blended brake systems.• Inoperative or otherwise defective hand brakes or parking brakes.
---	---

- Piston travel in excess of the Class I brake test limits.
- Power brakes overdue for inspection, testing, maintenance, or stenciling.

Rule Updated Date

May 2, 2016

[^Top](#)

38.3.3: Operable Brakes

<p>38.3.3</p> <p><i>49 CFR</i> <i>238.215</i></p> <p>Reference Rule 38.3.4</p>	<p>Operative Brakes</p> <p>When necessary to cut-out air brakes en route on Commuter/Business trains, the crew must comply with the following restrictions when braking percentage drops below 100%:</p> <ul style="list-style-type: none"> • 85 to 99% <ul style="list-style-type: none"> • Operate at normal speed. • Continue normal operation to either next repair point or end of trip, whichever occurs first. • 75 to 84% <ul style="list-style-type: none"> • Do not exceed 40 MPH. • Discharge passengers at the next station where it is safe to do so. • Proceed to nearest repair point. • 50 to 74% <ul style="list-style-type: none"> • Do not exceed 20 MPH. • Discharge passengers at next forward station. • Proceed to nearest repair point. • Less than 50% <ul style="list-style-type: none"> • Train must not be moved with passengers on board. • Do not exceed 20 MPH to nearest repair point. <p>To calculate operative brake percentage:</p> <ol style="list-style-type: none"> 1. Determine total number of trucks in the train. 2. Subtract the number of cutout trucks from the total number of trucks in the train. <ul style="list-style-type: none"> • Count each cut-out locomotive truck as 2 cut-out trucks. 3. Divide the number of operative trucks by the total number of trucks in the train then multiply it by 100. <p>Example: Train Information – 1 Locomotive / 2 trucks and 5 Cars / 10 trucks</p> <p>The crew is required to cut-out one truck on a car. Use the following formula to calculate the new braking percentage:</p>
---	--

	<p>Locomotive trucks + car trucks $2 + 10 = 12$ Total trucks</p> <p>Subtract BO truck(s) = 1 from total trucks</p> <p style="padding-left: 40px;">$12 - 1 = 11$ Total operative trucks</p> <p>Divide number of operative trucks by the total number of trucks in the train, then multiply by 100.</p> <p>Operative trucks $11 /$ total trucks $12 = .916 \times 100 = 91.6\%$</p> <p>When Front or Rear Unit is Inoperative</p> <p>If power brakes on the front or rear unit are inoperative, the following shall apply:</p> <ul style="list-style-type: none"> • If the hand brake is located inside the interior of the equipment: <ul style="list-style-type: none"> • A Qualified Person must be stationed at the hand brake on the unit. • The car must be locked out and empty, except for the railroad employee manning the hand brake. • Comply with applicable speed restriction. • If the hand brake is located outside the interior of the equipment or is inaccessible to a Qualified Person: <ul style="list-style-type: none"> • The car must be locked out and empty. • The train may be moved at Restricted Speed to the first location where car must be removed or repositioned in the train. • Notify the Mechanical Department of the failure.
--	--

Rule Updated Date

May 2, 2016

[^Top](#)

38.3.4: Defective Brake Chart

38.3.4	Defective Brake Chart
---------------	------------------------------

49 CFR 238.15 Movement of Equipment with Power Brake Defects

**Number of cut-out trucks on entire train
(Each locomotive truck counts as two trucks)**

Units	1	2	3	4	5	6	7	8
1	50%	0%	0%					
2	75%	50%	25%	0%	0%			
3	83%	67%	50%	33%	17%	0%	0%	
4	88%	75%	63%	50%	38%	25%	13%	0%
5	90%	80%	70%	60%	50%	40%	30%	20%
6	92%	83%	75%	67%	58%	50%	42%	33%
7	93%	86%	79%	71%	64%	57%	50%	43%
8	94%	88%	81%	75%	69%	63%	56%	50%
9	94%	89%	83%	78%	72%	67%	61%	56%
10	95%	90%	85%	80%	75%	70%	65%	60%
11	95%	91%	86%	82%	77%	73%	68%	64%
12	96%	92%	88%	83%	79%	75%	71%	67%
13	96%	92%	88%	85%	81%	77%	73%	69%
14	96%	93%	89%	86%	82%	79%	75%	71%

If the brakes on the first or last unit in the train are completely inoperable:

- Relocate passengers to other units and lock the car.
- Operate at 20 MPH or less
- Remove or reposition unit in the train when and where it is safe to do so.

Under 50%	<ul style="list-style-type: none"> • Discharge passengers where it is safe to do so. • Proceed to the nearest repair point at 20 MPH or less.
50 to 74%	<ul style="list-style-type: none"> • Operate at 20 MPH or less. • Discharge passengers at the next station where it is safe to do so. • Proceed to the nearest repair point.
75 to 84%	<ul style="list-style-type: none"> • Operate at 40 MPH or ½ operating speed, whichever is less. • Discharge passengers at the next station where it is safe to do so. • Proceed to the nearest repair point.
85 to 99%	<ul style="list-style-type: none"> • Operate at normal track speed. • Continue normal operation forward to either the next open repair point or end of trip, whichever occurs first.

Compiled by Metra's Workforce Education and Training Division

Rule Updated Date

January 20, 2012

[^Top](#)

[Union Pacific Rules](#)

[Air Brake and Train Handling Rules](#)

39.0: Equipment Charts/Diagrams - Brakes - Chapter 39

- [39.0: Freight Car and Locomotive Components](#)
- [39.1: Freight Car Components](#)
- [39.1.1: Freight Car End and Platform Identification](#)
- [39.1.2: Wheel and Journal Identification on Cars](#)
- [39.1.3: High Strength Couplers](#)
- [39.1.4: Freight Car A-1 Reduction Relay Valve](#)
- [39.1.5: Freight Car Automatic Vent Valve](#)
- [39.1.6: Retaining Valves](#)
- [39.1.7: Charging Time Chart](#)
- [39.2: Locomotive Components](#)
- [39.2.1: Automatic Brake Valves](#)
- [39.2.2: Automatic Brake Valve Cutout Valve](#)
- [39.2.3: Independent Brake Valves](#)
- [39.2.4: MU-2A/Double-Ported Cutout Cock](#)
- [39.2.5: Electro Pneumatic Automatic and Independent Brake Valves](#)
- [39.2.6: Locomotive Electronic Air Brake Computer Resets Resetting CCB Faults](#)
- [39.2.7: Air Flow Meter](#)
- [39.2.8: Overspeed Control](#)
- [39.3: Charts and Diagrams](#)
- [39.3.1: Car Chart Components](#)
- [39.3.2: Terminology for Articulated Car Identification Diagram](#)
- [39.3.3: Coupler Diagram](#)
- [39.3.4: Locomotive Axle, Journal, and Wheel Identification Diagram](#)
- [39.3.5: Locomotive Air Brake Equipment](#)

39.0: Freight Car and Locomotive Components

39.0 Freight Car and Locomotive Components

Rule Updated Date

January 20, 2012

[^Top](#)

39.1: Freight Car Components

39.1 Freight Car Components

Rule Updated Date

January 20, 2012

[^Top](#)

39.1.1: Freight Car End and Platform Identification

39.1.1	Freight Car End and Platform Identification Identify car ends as follows: <ul style="list-style-type: none">• On cars with one hand brake, the "B" end of the car is the end with the hand brake. The other end is the "A" end.• On cars with more than one hand brake, the letters "A" and "B" are stenciled on the appropriate ends of the car.• On cars with more than one platform, each section is stenciled. Example: A five-platform articulated spine car is designated with an "A" platform on one end and the adjacent platform is designated as "E" then "D", then "C" and then "B" on the opposite end.
--------	---

Rule Updated Date

May 2, 2016

[^Top](#)

39.1.2: Wheel and Journal Identification on Cars

39.1.2	Wheel and Journal Identification on Cars To determine the correct wheel numbers on cars: <ol style="list-style-type: none">1. Face the "B" end of the car.2. From the "B" end of the car, identify the designation of wheels, journals, and axles as follows:<ul style="list-style-type: none">• Axles are designated from the "B" end of the car with "1" for the axle closest to the "B" end.
--------	--

- Wheels and journals are designated left or right as viewed from the "B" end.
- Specific wheels are identified using the axle and wheel designation.

Rule Updated Date

January 20, 2012

[^Top](#)

39.1.3: High Strength Couplers

39.1.3	<p>High Strength Couplers</p> <p>Each car is to be considered equipped with a standard type coupler unless it is known the car is equipped with high strength couplers.</p> <p>Coal cars, covered hopper cars and cars designed to carry TOFC vans and/or containers are equipped with high strength couplers. If it is not known that a car is equipped with high strength couplers, it can be determined by looking at the coupler casting identification located on top of the coupler.</p> <p>A high strength coupler will have the letter "E", "EA", or "EX" as the last character(s) of identification. Examples of high strength coupler identifications are E60HTE, SBE60CE, E60DE, EF512WEX.</p>
--------	--

Rule Updated Date

May 2, 2016

[^Top](#)

39.1.4: Freight Car A-1 Reduction Relay Valve

39.1.4	<p>Freight Car A-1 Reduction Relay Valve</p> <p>Some long cars have an A-1 reduction relay valve that helps transmit a service or emergency brake pipe reduction by compensating for the added brake pipe length of the car.</p> <p>The relay valve functions as follows:</p> <ul style="list-style-type: none"> • Service brake reductions are assisted through the B-1 quick service portion. • Emergency brake pipe reductions are transmitted by the No. 8 vent valve portion. If the No. 8 vent valve fails to reset after an emergency brake application, causing a continuous blow at the exhaust port, plug the valve by removing the vent protector and screwing in the threaded plug. <p>The following freight cars are equipped with the relay valve:</p> <ul style="list-style-type: none"> • Cars with AB or ABD control valves and more than 75 feet of brake pipe between hose couplings.
--------	--

	<ul style="list-style-type: none"> • Cars with ABDW control valves and more than 100 feet of brake pipe between hose couplings. <p>Note: Cars with ABDW control valves having between 75 and 100 feet of brake pipe have a No. 8 vent valve added.</p>
--	--

Rule Updated Date

January 20, 2012

[^Top](#)

39.1.5: Freight Car Automatic Vent Valve

39.1.5	<p>Freight Car Automatic Vent Valve</p> <p>Some multi-platform cars are equipped with what is known as an automatic vent valve (AVV), which is an emergency portion of a control valve. This valve is used only to propagate an emergency brake application through the brake pipe. Should an AVV become defective, the cutout cock is used to cut it out.</p>
---------------	---

Rule Updated Date

January 20, 2012

[^Top](#)

39.1.6: Retaining Valves

39.1.6	<p>Retaining Valves</p> <p>The retaining valve on each car controls the brake cylinder pressure exhaust. All freight cars have retaining valves located at the "B" end of the car or at the side near the control valve. The retaining valve can be positioned to function as follows during a brake release:</p> <ul style="list-style-type: none"> • Allow the exhaust of brake cylinder pressure to atmosphere. • Retain brake cylinder pressure while the system is recharged. <p>A. Three-Position Retaining Valve</p> <p>The three-position retaining valve includes these positions.</p> <ul style="list-style-type: none"> • DIRECT EXHAUST (EX)-Exhausts all brake cylinder pressure. Handle is turned down. • HIGH PRESSURE (HP)-Exhausts brake cylinder pressure to 20 psi. Handle is 45 degrees below horizontal.
---------------	---

	<ul style="list-style-type: none"> • SLOW DIRECT EXHAUST (SD)-Exhausts brake cylinder pressure for a blow down time of approximately 86 seconds and continues to exhaust until all pressure is vented. Handle is 45 degrees above horizontal. <p>B. Four-Position Retaining Valve</p> <p>The four-position retaining valve includes the positions listed above and one additional position:</p> <ul style="list-style-type: none"> • LOW PRESSURE (LP)-Exhausts brake cylinder pressure to 10 psi. Handle is horizontal.
--	---

Rule Updated Date

January 20, 2012

[^Top](#)

39.1.7: Charging Time Chart

39.1.7	<p>Charging Time Chart</p> <p>When the brake system is uncharged and not equipped with an air flow meter, use the following chart to determine the minimum and maximum charging times:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="3" style="text-align: center;">Minimum and Maximum Charging Times When Brake System is Empty</th> </tr> <tr> <th style="text-align: center;">Brake Pipe Length (in feet)</th> <th style="text-align: center;">Minimum Charging Time (Minutes)</th> <th style="text-align: center;">Maximum Charging Time (Minutes)</th> </tr> </thead> <tbody> <tr><td style="text-align: center;">2500 or less</td><td style="text-align: center;">8</td><td style="text-align: center;">25</td></tr> <tr><td style="text-align: center;">3000</td><td style="text-align: center;">10</td><td style="text-align: center;">30</td></tr> <tr><td style="text-align: center;">4000</td><td style="text-align: center;">15</td><td style="text-align: center;">35</td></tr> <tr><td style="text-align: center;">5000</td><td style="text-align: center;">20</td><td style="text-align: center;">40</td></tr> <tr><td style="text-align: center;">6000</td><td style="text-align: center;">26</td><td style="text-align: center;">55</td></tr> <tr><td style="text-align: center;">7000</td><td style="text-align: center;">35</td><td style="text-align: center;">65</td></tr> <tr><td style="text-align: center;">8000</td><td style="text-align: center;">45</td><td style="text-align: center;">75</td></tr> <tr><td style="text-align: center;">9000</td><td style="text-align: center;">57</td><td style="text-align: center;">100</td></tr> <tr><td style="text-align: center;">10,000</td><td style="text-align: center;">71</td><td style="text-align: center;">125</td></tr> <tr><td style="text-align: center;">11,000</td><td style="text-align: center;">80</td><td style="text-align: center;">160</td></tr> </tbody> </table>	Minimum and Maximum Charging Times When Brake System is Empty			Brake Pipe Length (in feet)	Minimum Charging Time (Minutes)	Maximum Charging Time (Minutes)	2500 or less	8	25	3000	10	30	4000	15	35	5000	20	40	6000	26	55	7000	35	65	8000	45	75	9000	57	100	10,000	71	125	11,000	80	160
Minimum and Maximum Charging Times When Brake System is Empty																																					
Brake Pipe Length (in feet)	Minimum Charging Time (Minutes)	Maximum Charging Time (Minutes)																																			
2500 or less	8	25																																			
3000	10	30																																			
4000	15	35																																			
5000	20	40																																			
6000	26	55																																			
7000	35	65																																			
8000	45	75																																			
9000	57	100																																			
10,000	71	125																																			
11,000	80	160																																			

Rule Updated Date

January 20, 2012

[^Top](#)

39.2: Locomotive Components

39.2 Locomotive Components

Rule Updated Date

January 20, 2012

[^Top](#)

39.2.1: Automatic Brake Valves

39.2.1	<p>Automatic Brake Valves</p> <p>A. 24RL-MC Automatic Brake Valve</p> <p>The 24RL-MC automatic brake valve is a maintaining, non-self-lapping automatic brake valve. This brake valve maintains in LAP. Therefore, cut-out the maintaining feature during brake pipe leakage tests. Handle positions include:</p> <ul style="list-style-type: none">• FULL RELEASE - Releases the train and locomotive brakes and charges the brake pipe through the regulating valve, preventing overcharge. When the handle is in this position, air is heard exhausting at the brake valve.• RELEASE - Releases the train and locomotive brakes and charges the brake pipe through the regulating valve.• FIRST SERVICE - Reduces the equalizing reservoir 6 to 10 psi at a service rate, then continues to reduce brake pipe pressure at a slow rate.• LAP - Maintains brake pipe pressure at the same level as equalizing reservoir pressure.• SERVICE - Reduces equalizing reservoir and brake pipe pressures at a service rate.• EMERGENCY - Vents brake pipe pressure directly to the atmosphere, causing brakes to apply at an emergency rate. <p>B. 24RL-MC1 Automatic Brake Valve</p> <p>The 24RL-MC1 automatic brake valve is a maintaining, non self-lapping automatic brake valve. This brake valve maintains in MAINTAINING. Use LAP during brake pipe leakage tests. Handle positions include:</p> <ul style="list-style-type: none">• FULL RELEASE - Releases the train and locomotive brakes and charges the brake pipe through the regulating valve, preventing overcharge. When the handle is in this position, air is heard exhausting at the brake valve.
---------------	---

- **RELEASE** - Releases the train and locomotive brakes and charges the brake pipe through the regulating valve.
- **MAINTAINING** - Maintains brake pipe pressure at the same level as equalizing reservoir pressure. After making a brake pipe reduction, maintain brake pipe pressure by returning the automatic brake handle to **MAINTAINING** without pausing in **LAP**.

Note: Pausing in **LAP** may allow leakage to reduce brake pipe pressure below equalizing reservoir pressure. The brakes will release when you return the handle to **MAINTAINING** if equalizing reservoir pressure is above brake pipe pressure.

- **LAP** - Prevents air from leaving or entering the brake pipe at the automatic brake valve. All ports in the brake valve are closed. Brake pipe leakage will continue to reduce brake pipe pressure at the same rate as the leakage. This position is also used for conducting brake pipe leakage tests and recovering from a penalty application.
- **SERVICE** - Reduces the equalizing reservoir and brake pipe pressures at a service rate.
- **EMERGENCY** - Vents brake pipe pressure directly to the atmosphere, causing brakes to apply at an emergency rate.

C. 26C, 30CDW, Knorr CCB and WABCO EPIC Automatic Brake Valves

These maintaining, self-lapping brake valves regulate brake pipe pressure, controlling both locomotive and train brakes.

Brake Valve Features

These automatic brake valves have these features:

- The maintaining feature maintains constant brake pipe pressure unless the cutout valve is in **OUT**.
- The regulating valve controls the supply of air pressure to the equalizing reservoir, which regulates brake pipe pressure.

Handle Positions:

- **RELEASE** - Charges the brake pipe to the regulating valve setting and releases the locomotive and train brakes.
- **MINIMUM REDUCTION** - Reduces equalizing reservoir and brake pipe pressures 6 to 8 psi.
- **SERVICE ZONE** - Gradually reduces equalizing reservoir and brake pipe pressures in increasing amounts as the brake handle is moved to the right.
- Moving the brake handle to the left with the brake valve cutout valve in **PASS** will increase equalizing reservoir and brake pipe pressures. Use extreme care when operating freight trains with the automatic brake valve cutout valve in **PASS**.
- **FULL SERVICE POSITION** - Reduces equalizing reservoir and brake pipe pressures to near equalization.
- **SUPPRESSION** - Restores control of the locomotive after a penalty brake application. To recover, leave the brake handle in this position for 60 seconds.

	<ul style="list-style-type: none"> • HANDLE OFF/CONTINUOUS SERVICE - Reduces equalizing reservoir and brake pipe pressures at a service rate. Use this handle position for: <ul style="list-style-type: none"> • Trailing locomotives • Helper locomotives that do not control the air brake system • Locomotives hauled dead-in-train • EMERGENCY - Vents brake pipe pressure directly to the atmosphere, causing brakes to apply at an emergency rate.
--	--

Rule Updated Date

May 2, 2016

[^Top](#)

39.2.2: Automatic Brake Valve Cutout Valve

<p>39.2.2</p>	<p>Automatic Brake Valve Cutout Valve</p> <p>The automatic brake valve cutout valve determines how and when the automatic brake controls brake pipe pressure.</p> <p>There are two-position and three-position cutout valves. These cutout valves are spring-loaded and must be pushed in or pulled out before changing positions.</p> <p>Note: EMERGENCY is always available regardless of the position of the automatic brake valve cutout valve.</p> <p>A. Two-Position Cutout Valve</p> <p>The two-position cutout valve has these positions:</p> <ul style="list-style-type: none"> • IN - Provides control of brake pipe pressure from the automatic brake valve. Equalizing reservoir and brake pipe pressures will increase when the automatic brake valve is in RELEASE. • OUT - Disconnects control of brake pipe pressure from the automatic brake valve. Use this position when: <ul style="list-style-type: none"> ◦ Not using the automatic brake valve to control brake pipe pressure (trailing locomotives or locomotives hauled dead-in-train). ◦ Conducting brake pipe leakage tests. <p>B. Three-Position Cutout Valve</p> <p>The three-position cutout valve has these positions:</p> <ul style="list-style-type: none"> • FRT - Same as IN position described in two-position cutout valve above. • OUT - Same as OUT position described in two-position cutout valve above.
---------------	--

	<ul style="list-style-type: none"> • PASS - Provides control of brake pipe pressure from the automatic brake valve. Equalizing reservoir pressure and brake pipe pressure will increase from any movement of the brake handle toward RELEASE. Use this position when operating passenger or commuter trains to utilize the graduated release feature. <p>Note: In freight service, if the equalizing reservoir is leaking, PASS may be used only if it is necessary to maintain constant brake pipe pressure during an automatic brake application. Because of the possibility of an undesired release, placing the three-position cutout valve in PASS position must only be done with the automatic brake valve handle in RELEASE position.</p>
--	---

Rule Updated Date

May 2, 2016

[^Top](#)

39.2.3: Independent Brake Valves

39.2.3	<p>Independent Brake Valves</p> <p>The following describes the positions and functions of the independent brake valve:</p> <ul style="list-style-type: none"> • RELEASE - Normal position for full release of the locomotive brakes. • ACTUATE - To release the locomotive brakes during an automatic brake application, depress the handle. • APPLICATION ZONE - All handle movements between RELEASE and FULL APPLICATION increase or decrease locomotive brake cylinder pressure as follows: <ol style="list-style-type: none"> 1. Increase by moving the brake handle to the right (or forward). 2. Decrease by moving the brake handle to the left (or back towards operator). • FULL APPLICATION. Position for creating maximum locomotive brake cylinder pressure from the independent brake system.
---------------	---

Rule Updated Date

May 2, 2016

[^Top](#)

39.2.4: MU-2A/Double-Ported Cutout Cock

39.2.4	<p>MU-2A/Double-Ported Cutout Cock</p> <p>The handle for the MU-2A cutout cock is spring-loaded; push it in before changing positions.</p> <p>The MU-2A valve has three positions:</p>
---------------	---

	<p>LEAD - Engages control of the independent brakes. Use when a locomotive is a single or controlling unit.</p> <p>Dead - Used when locomotive is being hauled dead-in-train.</p> <p>TRAIL - Disconnects control of the independent brakes from the independent brake valve. Use when a locomotive is a trailing unit in a multiple-unit consist.</p> <p>The double-ported cutout cock has two positions:</p> <p>IN - Engages control of the independent brakes on a single locomotive or on the controlling locomotive of a multiple-unit consist. Use IN also when a locomotive is hauled dead-in-train.</p> <p>OUT - Disconnects control of the independent brakes from the independent brake valve. Use OUT when a locomotive is trailing in a multiple-unit consist.</p>
--	---

Rule Updated Date

May 2, 2016

[^Top](#)

39.2.5: Electro Pneumatic Automatic and Independent Brake Valves

<p>39.2.5</p>	<p>Electro Pneumatic Automatic and Independent Brake Valves</p> <p>Electro pneumatic automatic and independent brake valves (Knorr CCB or WABCO EPIC) are cut-in or cut-out through electronic display screens. The air brake setup screens options are:</p> <ul style="list-style-type: none"> • Independent Brake: <ol style="list-style-type: none"> 1. Lead. <li style="padding-left: 20px;">Or 2. Trail. • Automatic Brake Valve: <ol style="list-style-type: none"> 1. Pass (passenger-to be used only in passenger service). 2. Freight. <li style="padding-left: 20px;">Or 3. Cut Out. <p>Note: To avoid an undesired emergency brake application when cutting in the automatic brake on these systems, cut-in the independent brake first by selecting "Lead" and saving changes before changing automatic brake valve setup to "Freight" (or "Pass"). Most units now have graceful cut-in eliminating this problem.</p>
----------------------	--

Rule Updated Date

May 2, 2016

[^Top](#)

39.2.6: Locomotive Electronic Air Brake Computer Resets Resetting CCB Faults

39.2.6	<p>Locomotive Electronic Air Brake Computer Resets Resetting CCB Faults</p> <p>Knorr CCB systems may sometimes detect a system fault en route or when setting up that may be cleared as follows:</p> <ol style="list-style-type: none">1. Secure locomotive.2. Close end cocks on affected unit, including main reservoir line.3. Verify that air brake computer (CCB) circuit breaker is closed and remove reverser handle.4. Set unit air brake setup to TRAIL. Note: If unit will not go to TRAIL, select LEAD, save and confirm. Try Step 4 again.5. Place automatic brake valve handle in EMERGENCY position.6. Place independent brake valve handle in RELEASE position.7. After 60 seconds, place automatic brake valve handle in RELEASE position.8. Change air brake setup to LEAD-CUT IN, and charge brake pipe to 90 psi.9. Place automatic brake valve handle in SUPPRESSION position for 10 seconds.10. Return automatic brake valve handle to RELEASE position. Allow equalizing reservoir and brake pipe to FULLY charge and allow brake cylinder pressure to go to 0 psi.11. Place independent brake valve handle in FULL APPLICATION position.12. Place independent brake valve handle in RELEASE position.13. ACTUATE (BAIL) for 10 seconds.14. Place automatic brake valve handle in EMERGENCY position.15. After 60 seconds, place automatic brake valve handle in RELEASE position.16. Place independent brake valve handle in FULL APPLICATION position.17. Faults should be cleared. If faults do not clear, follow message instructions on operator's display.
---------------	---

Rule Updated Date

May 2, 2016

[^Top](#)

39.2.7: Air Flow Meter

39.2.7	
---------------	--

Air Flow Meter

The air flow meter measures the rate in cubic feet per minute (CFM) that air flows into the brake pipe. The Air Flow Method uses this meter to determine brake pipe leakage.

A. Air Flow Meter Readings

The air flow meter provides the following brake pipe flow information:

- As the brake system begins charging, a high flow into the brake pipe is indicated by:
 - a. Higher numbers (more than 60 CFM).
 - or
 - b. The pointer moving to the right.
- As the brake system becomes charged, a lesser air flow into the brake pipe is indicated by:
 - a. Lower numbers (less than 60 CFM).
 - or
 - b. The pointer moving to the left.
- If the air flow meter shows a reading (less than 60 CFM or left of the calibration mark) that is stabilized, the brake system is charged.

B. Air flow information

The air flow meter also provides the following information about the train's brake system:

- After a brake application and release, the air flow meter will indicate high flow. As the brake system recharges, the brake pipe flow rate will decrease until the air flow pointer reaches the reference value, indicating that the brake system is recharged.
- Air flow less than the reference value may indicate a closed angle cock.
- Air flow greater than the reference value may indicate increased leakage to the brake system.
- With a brake application in effect, a decrease in air flow may indicate that an unintentional brake release is occurring.

Once the air flow meter shows a constant reading, the engineer should:

1. Note the rate of flow and use this number as a reference to determine when the brake system is charged.
2. If the air flow meter is equipped, adjust the reference pointer to agree with the flow pointer.

Note: This reading is a reference value to use to monitor fluctuations in air flow to the brake pipe.

Rule Updated Date

January 20, 2012

39.2.8: Overspeed Control

39.2.8	<p>Overspeed Control</p> <p>The overspeed control prevents the train from running at speeds higher than the safe mechanical limits of the traction motors. It functions as follows:</p> <ul style="list-style-type: none">• If train speed increases to an unsafe level, the safety control device sounds a warning.• If the train does not slow within 6 to 12 seconds of the first warning sound, the overspeed control device applies the train brakes and trips the PC switch. <p>Exception: Some BNSF locomotives allow an Overspeed Penalty Application to be prevented by placing automatic brake valve to MINIMUM position. When warning whistle is heard, move automatic brake valve to MINIMUM position. If speed reduces sufficiently, train brakes may be released, when desired. If Penalty Brake Application occurs as indicated by PCS open and service brake application, move automatic brake valve handle to SUPPRESSION to recover.</p> <p>A. Slowing Train due to Overspeed Application</p> <p>To slow the train when the safety control device sounds a warning, comply with the following:</p> <ol style="list-style-type: none">1. On locomotives with 26L, 30CDW, and CCB brake equipment, move the automatic brake handle to SUPPRESSION within the 6 to 12 second warning period.2. On locomotives with other brake equipment, reduce the brake pipe pressure 6 to 8 psi, or more if necessary. <p>B. Recover Overspeed</p> <p>To recover when the overspeed control applies the train brakes:</p> <ol style="list-style-type: none">1. On locomotives with 26L, 30CDW, and CCB brake equipment, move the automatic brake handle to SUPPRESSION.2. On locomotives with other brake equipment, move the automatic brake handle to LAP.3. Move the throttle to IDLE and wait 60 seconds.4. After the train stops, move the automatic brake handle to RELEASE and note that:<ul style="list-style-type: none">• Brake pipe pressure is restored.• PC light goes out.• Brakes release. <p>Note: Some locomotive equipment has been modified to slow the train during the warning period with the automatic brake valve in MINIMUM REDUCTION. Unless the engineer knows that the locomotive being operated includes this modification, the SUPPRESSION position should be used.</p>
--------	--

January 20, 2012

[^Top](#)

39.3: Charts and Diagrams

39.3 Charts and Diagrams

Rule Updated Date

January 20, 2012

[^Top](#)

39.3.1: Car Chart Components

<p>39.3.1</p>	<p>Car Chart Components</p> <p>(To be used when notifying the Dispatcher's Office or others of location of defects, etc.)</p> <p>To determine axle number, journal number, and wheel number on a car, stand facing the hand brake end of the car (the B end) and count the closest axle as number one and the wheels and journals on right and left sides as R1, R2, etc., and L1, L2, etc., respectively, as shown in the diagram.</p> <p>Note: For all multi-unit articulated cars, the journal-wheel number will be stenciled on the side frame directly above the journal.</p> <ol style="list-style-type: none"> 1. Horizontal end hand hold 2. Hand brake housing 3. End ladder tread 4. Hand brake wheel 5. Telescoping uncoupling rod 6. Uncoupling lever guide 7. Hand brake chain 8. End platform (combined crossover and brake step) 9. Bell crank 10. Vertical hand brake rod 11. Front draft gear stop 	<ol style="list-style-type: none"> 39. Brake shoe 40. Wheel 41. Axle 42. Truck live lever 43. Brake beam 44. Roller bearing adapter 45. Roller bearing end cap 46. End cap retaining bolt 47. End cap locking plate 48. Truck side frame 49. Truck spring 50. Truck bolster 51. Roller bearing assembly 52. Truck side bearing roller 53. Truck side bearing housing 54. Truck dead lever 55. Clevis at dead lever 56. Clevis at dead lever fulcrum 57. Dead lever anchor $\frac{3}{4}$ underframe mounted
----------------------	--	--

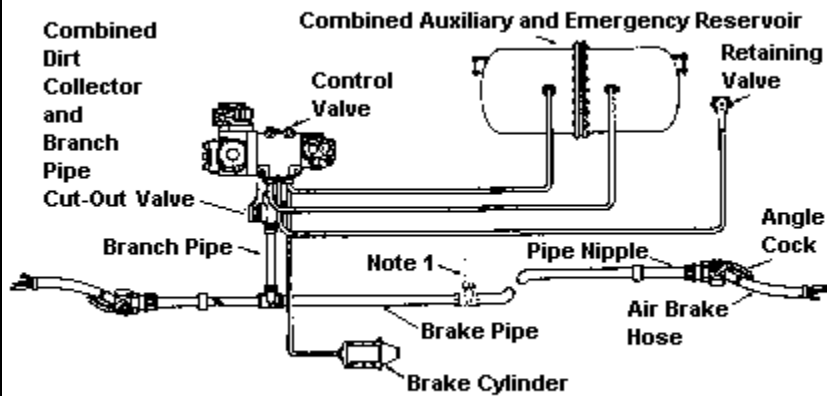
	<p>12. Striker</p> <p>13. Coupler knuckle pin</p> <p>14. Coupler knuckle</p> <p>15. Type E coupler head</p> <p>16. Coupler carrier</p> <p>17. Coupler wear plate</p> <p>18. Striker flange</p> <p>19. Angle cock</p> <p>20. Draft key washer</p> <p>21. Draft key</p> <p>22. Draft key retainer</p> <p>23. Brake pipe, 1-1/4" (Train line)</p> <p>24. Follower block</p> <p>25. Coupler yoke</p> <p>26. Draft gear</p> <p>27. Rear draft gear stop</p> <p>28. Rear draft gear stop reinforcement</p> <p>29. Hydraulic piston</p> <p>30. Center sill</p> <p>31. Back stop plate</p> <p>32. Rear lug casting</p> <p>33. Striker casting</p> <p>34. Coupler key</p> <p>35. Cushioning unit</p> <p>36. Restoring mechanism</p> <p>37. Inspection plate</p> <p>38. Rear cross key</p>	<p>58. Center pin</p> <p>59. Truck center plate cast integral with truck bolster</p> <p>60. Air hose</p> <p>61. Hand brake chain at bell crank</p> <p>62. Hand brake rod guide</p> <p>63. Hand brake rod</p> <p>64. Hand brake chain at cylinder</p> <p>65. Cylinder push rod</p> <p>66. Air brake cylinder</p> <p>67. Cylinder pipe, 3/4"</p> <p>68. Floating lever guide</p> <p>69. Floating lever</p> <p>70. Pipe clamp, 3/4"</p> <p>71. Top rod "A" end</p> <p>72. Branch pipe tee</p> <p>73. Branch pipe tee support</p> <p>74. Combined dirt collector and cutout cock</p> <p>75. Connection hose</p> <p>76. Pipe clamp, 1-1/4"</p> <p>77. Retainer pipe</p> <p>78. Retainer valve</p> <p>79. ABD control valve</p> <p>80. Release rod</p> <p>81. Auxiliary reservoir pipe, 3/4"</p> <p>82. Emergency reservoir pipe, 3/4"</p> <p>83. Reservoir support</p> <p>84. Combined auxiliary and emergency reservoir</p> <p>85. Cylinder lever guide</p>
--	--	---

86. Brake lever fulcrum

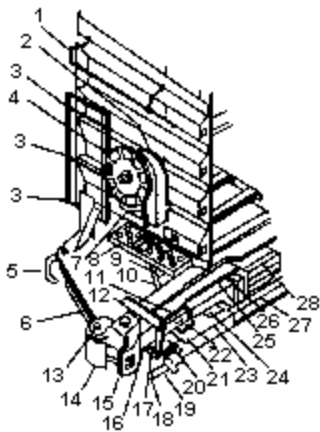
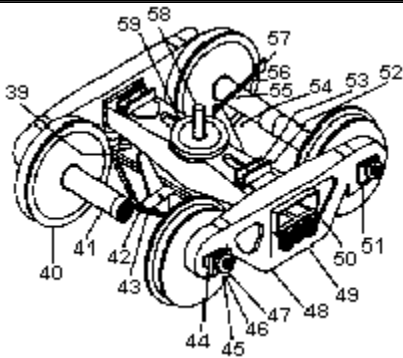
87. Brake slack adjuster

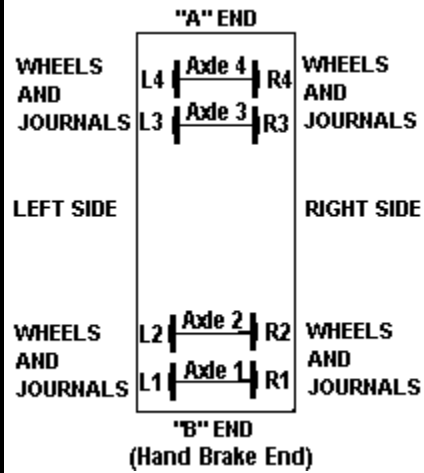
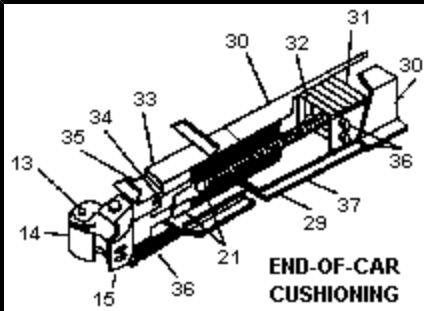
88. Cylinder lever

89. Top rod "B" end

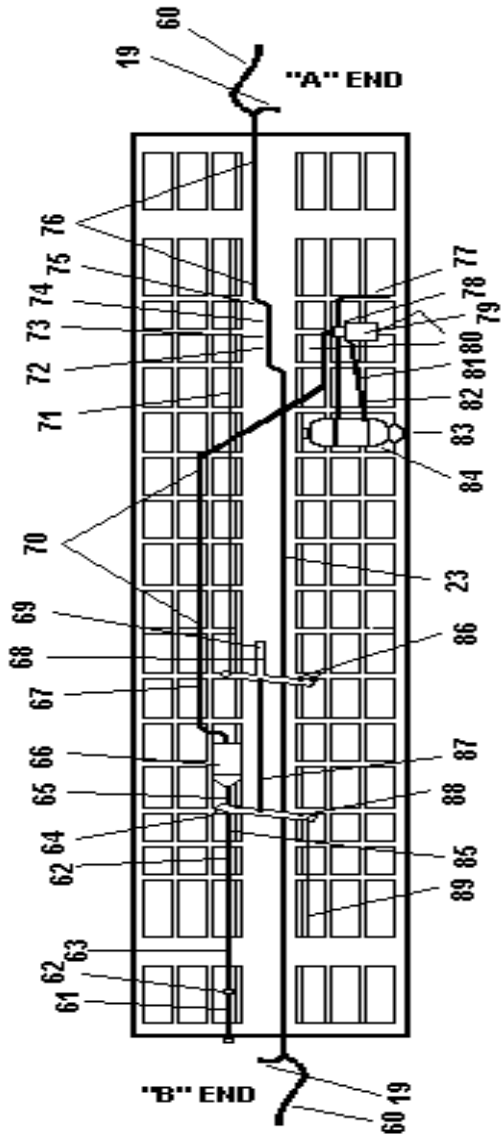


Note 1: Reduction Relay Valve or Vent Valve, when Required





Reproduced with the permission of c1970.
The Railway Educational Bureau
1809 Capital Avenue,
Omaha, Nebraska 68102
Simmons Boardman
Publishing Corporation



Rule Updated Date

January 20, 2012

[^Top](#)

39.3.2: Terminology for Articulated Car Identification Diagram

39.3.2

Terminology for Articulated Car Identification Diagram

Control Valve – Operates truck-mounted brakes. It consists of two valve portions bolted to a pipe bracket and has a cutout cock. It is located by the air reservoir. Each control valve operates the brakes on two trucks:

- The control valve on the A platform operates the brakes on A and F trucks.
- The control valve on the D platform operates the brakes on E and D trucks.
- The control valve on the B platform operates the brakes on C and B trucks.

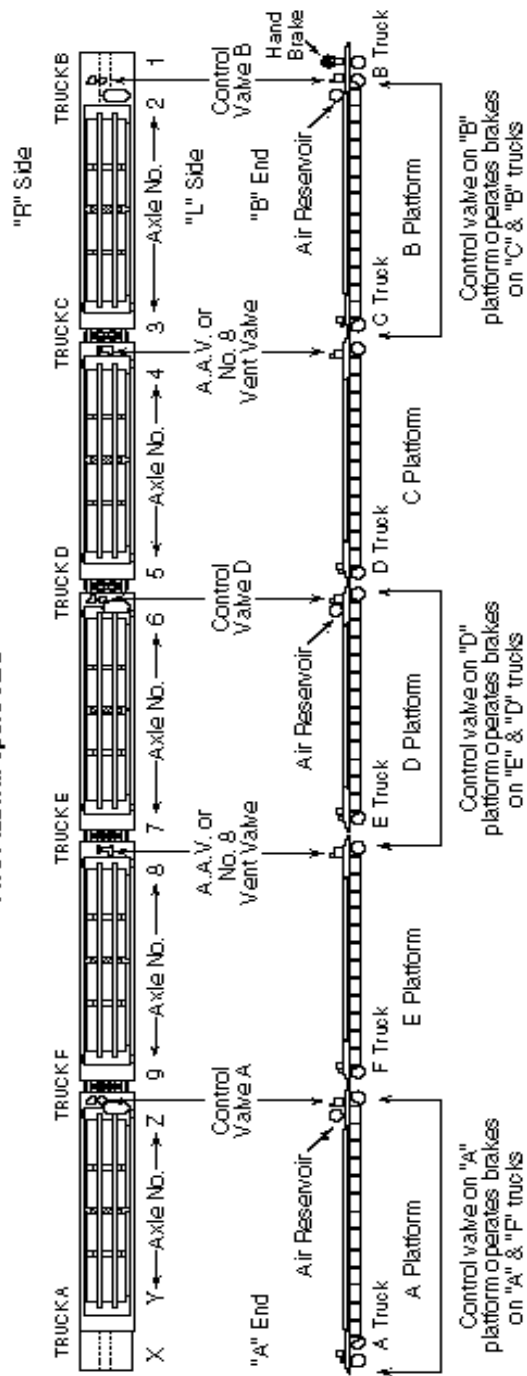
A.A.V. (Accelerated Application Valve) – Does not operate brakes, but does propagate the signal to operate brakes. It consists of one valve portion bolted to a pipe bracket and has a cutout cock. However, do not cut-out the A.A.V. unless there is a continuous blow of air through the valve.

No. 8 Vent Valve – Does not operate brakes but does propagate the signal to operate brakes. It consists of a single vent valve and does not have a cutout cock. It does have a plug that can be installed if there is a continuous blow of air through the valve.

Hand Brakes – Five platform cars have a hand brake on the B platform. Also, there may be a hand brake on the A platform. When there are hand brakes on both the A and B platforms, they are painted orange. If the car is set out and the use of hand brakes is necessary, apply both hand brakes.

Truck, Axle, and General Brake Arrangement of:

- Five-Platform Double Stack Well Cars and
- Five-Platform Spine Cars

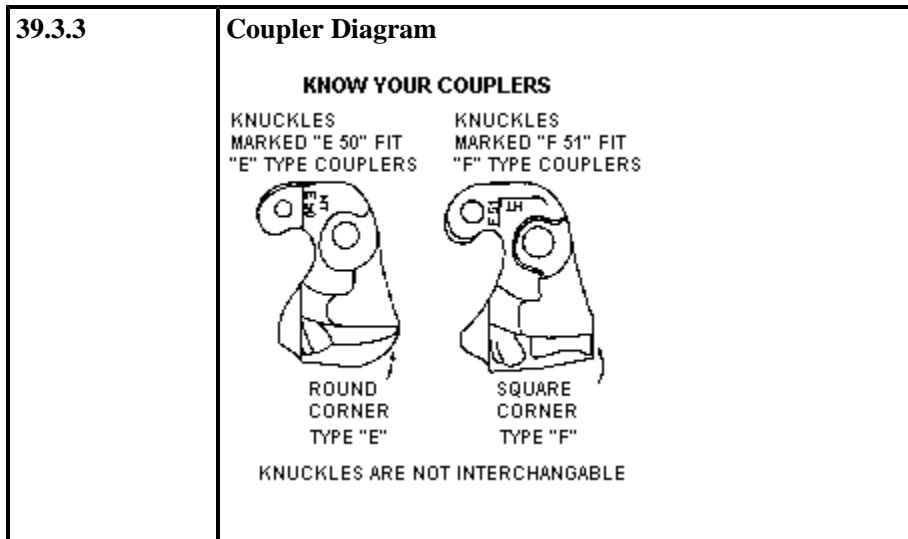


Rule Updated Date

January 20, 2012

[^Top](#)

39.3.3: Coupler Diagram

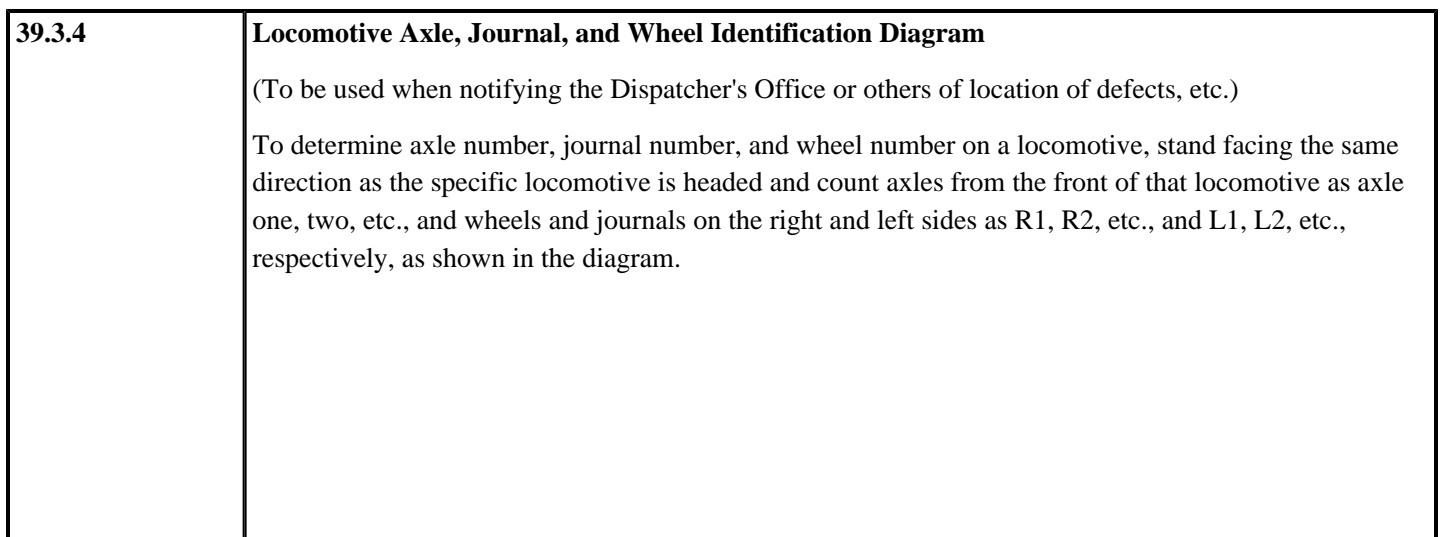


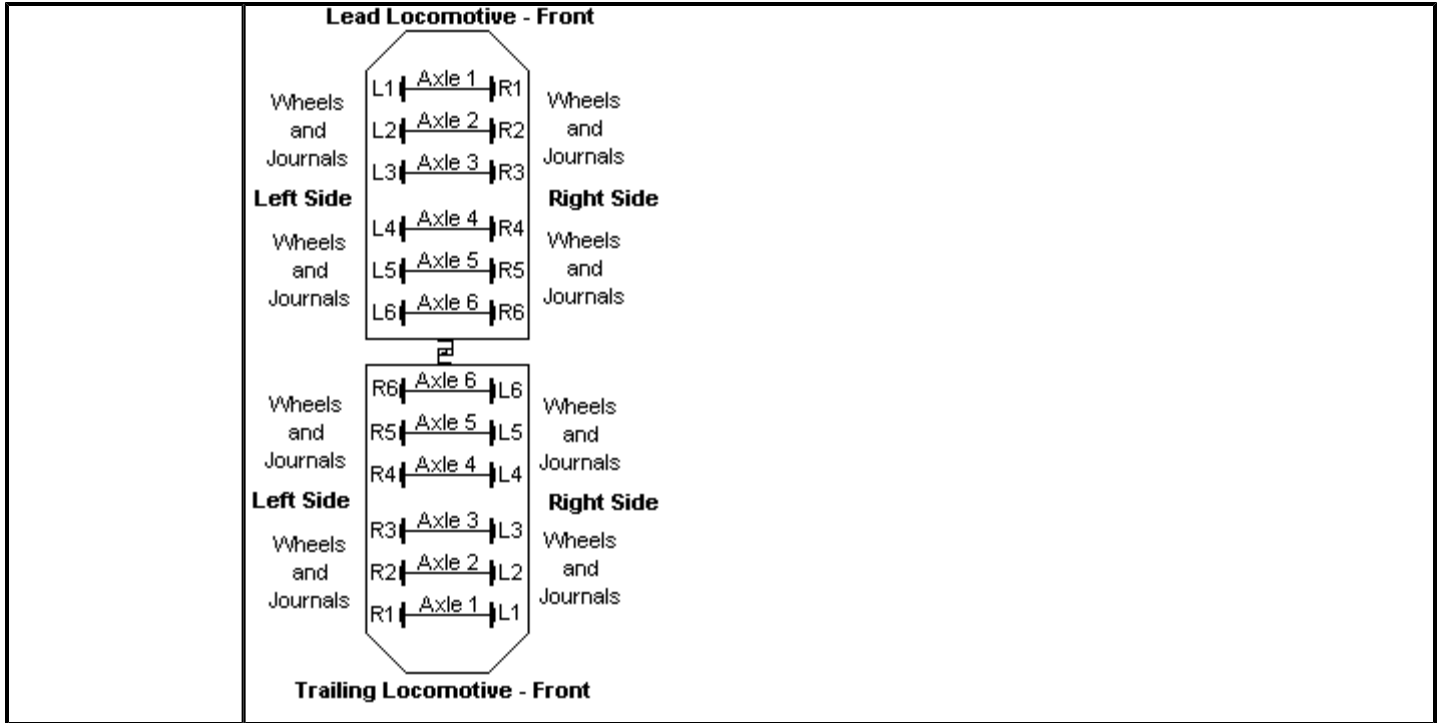
Rule Updated Date

January 20, 2012

[^Top](#)

39.3.4: Locomotive Axle, Journal, and Wheel Identification Diagram





Rule Updated Date

January 20, 2012

[^Top](#)

39.3.5: Locomotive Air Brake Equipment

Place air brake valves in the proper position on freight and helper locomotives. To MU locomotives, position brake valves and cutout cocks as indicated in the following tables:

26 and 30CDW Brake Equipment Positions			
	Lead	Trail	Helper
Automatic Brake Valve	Release	Handle Off/Continuous Service	Handle Off/Continuous Service
Independent Brake Valve	Applied Full	Release	Release
	LEAD OR DEAD	TRAIL	LEAD OR DEAD
MU-2A Valve or Double-Ported Cutout Cock	In	Out	In

CCB Brake Equipment Positions			
	Lead	Trail	Helper
Automatic Brake Valve	Release	Handle Off/Continuous Service	Handle Off/Continuous Service
Independent Brake Valve	Applied Full	Release	Release
Air Brake Setup	Lead/Cut-in	Trail	Lead/Cut-out

24RL Brake Equipment Positions			
	Lead	Trail	Helper
Automatic Brake Valve	Release	Release	Lap
Independent Brake Valve	Applied Full	Release	Release
Automatic Brake Valve Cutout Valve	Open	Closed	Closed
Rotair Valve	Pass Frt	Frt Lap	Pass or Frt
MU-2A Valve	Lead or Dead	Trail	Lead or Dead

Note: On SD70ACe and C45 locomotives, when the locomotive is other than the controlling locomotive, the automatic brake valve pin, if available, must be inserted to insure the brake valve handle remains in the proper position. The engineer's seat must be left secured/locked. This also applies when these locomotives are set out.

Rule Updated Date

May 2, 2016

[^Top](#)

[Union Pacific Rules](#)

[Air Brake and Train Handling Rules](#)

GLOSSARY: Glossary

- [GLOSSARY: GLOSSARY](#)

GLOSSARY: GLOSSARY

GLOSSARY

Accelerometer

An indicator that displays the predicted increase or decrease in speed in MPH per minute.

AC Locomotive

Alternating Current (AC) locomotives are equipped with AC traction motors and are not affected by maximum continuous current ratings or short-time operating ratings.

Actuating

Using a feature of the independent brake valve to charge the actuating pipe from the main reservoir and prevent or release a locomotive brake application initiated from a brake pipe reduction.

Air Brake

A system of compressed air devices controlled manually, electronically, or pneumatically that make the car or locomotive slow down or stop.

Air Brake Equipment

The equipment that supplies and exhausts air to and from the brake cylinders but does not include foundation brake gear and hand brakes.

Air Brake Hose

The flexible hose at each end of a car or locomotive that includes a coupling (glad hand) that fits into an identical coupling on the adjoining car or locomotive. The complete arrangement connects air between the brake pipes of the cars and the locomotives throughout the train.

Air Brake System

All of the devices for operating air brakes to control the speed of and stop a locomotive or train. The system includes the operating devices, pipes, hoses, fittings, and foundation brake gear.

Air Compressor

A locomotive device, powered by the diesel engine or an electric motor, that compresses air for operating the air brakes and all other air-operated devices on locomotives and cars.

Air Compressor Control Switch

A device that controls the loading and unloading of the compressor at the proper main reservoir pressures.

Air Flow Indicator (AFI)

A gauge installed in some locomotives that indicates the pressure differential of air flowing into the brake pipe through the

automatic brake valve. It is not adjustable and cannot be used for air flow method leakage testing of trains or cars. This gauge is labeled on the face "AIR FLOW INDICATOR" and graduated from 0 to 14 in even numbers (0, 2, 4, 6, etc. to 14).

AFM Indicator or Air Flow Measurement (AFM)

A gauge installed in some locomotives that indicates the volume of air in cubic feet per minute (CFM) flowing into the brake pipe through the automatic brake valve. This gauge is calibrated every 92 days and can be used in the Air Flow Method of leakage testing on trains and cars. It is labeled on the face as "AFM INDICATOR" and is graduated in 10 CFM increments. The gauge is marked at 20, 40, 60, and 80, and lines mark the 10 CFM steps between those numerals.

Air Flow Method (AFM)

Shortened name, or slang, for Air Flow Method of leakage testing. The method of train/car leakage testing to determine the amount of air in cubic feet per minute (CFM) flowing into the brake pipe through the automatic brake valve to maintain desired pressure against leakage.

Air Gauge

An instrument that indicates air pressure in pounds per square inch (psi).

Alignment Control Coupler

Specially equipped couplers installed on most locomotives that only allow the coupler in buff to move laterally within certain limits. This equipment minimizes rail turnover, wheel climb, and jackknifing. Coupler swing limiting devices do not make the coupler an alignment control coupler.

Ampere (Amperage, Amps)

The standard unit for measuring electric current.

Angle Cock

A manually operated device located at each end of the brake pipe on locomotives and cars to permit or prevent air flow.

Articulated Multi-platform Car

A car with multiple units (segments) that have articulated couplings and in which the units share a common truck.

Automatic Brake Valve

A manually operated electronic controller or pneumatic valve on the locomotive that controls the train and engine brakes.

Auxiliary Reservoir

A storage volume, charged from the brake pipe, to receive and store air to apply brakes on a car or locomotive. In freight car equipment, the auxiliary reservoir and emergency reservoir are combined in one structure.

"B" End (of car)

The end where the hand brake is located unless otherwise identified.

B-unit

A locomotive which does not have an operating cab or crew compartment that may be occupied, and must be controlled from another coupled cab equipped locomotive unit.

Back-up Valve or Hose

A device, either portable or permanently connected to the brake pipe, which controls brakes from the car that it is attached to. The device can apply the brakes with a service or emergency application.

Balanced Braking

The combined use of train air brakes and dynamic brake to stabilize, increase, or decrease train speed on a descending grade.

Bleed (Bleed-off)

Venting air pressure to the atmosphere, such as venting air pressure from the brake cylinder of individual cars, by using the release valve.

Blended Braking

The combination of air and dynamic braking by making an automatic service brake application with the throttle in idle.

Box Car Mode

A DP software feature that automatically functions to allow a DP remote consist to recover brake pipe pressure from a Penalty/Emergency condition during a sustained radio comm loss. This feature enables the DP locomotive brakes (BC pressure) to respond to normal changes in Brake Pipe (BP) pressure similar to a box car.

Brake Application

A brake pipe pressure reduction (no matter how made) that causes the control valve to move to the service or emergency position.

Brake Cylinder

A cylinder containing a piston. Compressed air forces the piston outward to apply the brakes. When the air pressure is released, the piston returns to its normal position by a release spring coiled around the piston rod inside the cylinder.

Brake Pipe

The section of air brake piping of a car or locomotive that supplies the reservoirs. It also connects the piping to allow the locomotive engineer to control the car brakes. The pipe is 1-1/4" in diameter and extends from one end of the car to the other. At the ends, flexible hoses connect the cars. When a train is made up and all brake pipes on the cars are joined together, the entire pipe line is called the brake pipe.

Brake Pipe Gradient

The difference in brake pipe pressure between the locomotive (or source of supply) and the rear car of the train. Brake pipe gradients may be:

- **Normal:** The gradient that exists when the system is fully charged.
- **False:** The temporary gradient that exists when the system is less than fully charged (For example, the exaggerated difference between the head end and rear end after a release).
- **Inverse:** The temporary condition when the brake pipe pressure is higher at the rear of the train than at the head end of the train (For example, during a service brake application).

Brake Pipe Pressure

The amount of pressure in pounds per square inch (psi) in the brake pipe (commonly expressed in pounds).

Brake Valve Cutoff Valve

A device on locomotives that can cut-out the charging and service functions of the automatic brake valve. This valve also properly positions the brake valve for passenger or freight operation.

Branch Pipe Cutout Cock

A device on locomotives and cars that isolates the control valve from the brake pipe.

Buff Forces

A term used to describe compressive coupler forces in a train. Buff forces bunch the slack in a train.

Cab Car

Railroad rolling equipment intended to provide transportation for members of the general public that is without propelling motors but equipped with one or more control stands. Locomotive rules apply to cab car operation.

Calendar day

A time period running from one midnight (0001) to the next midnight on a given date.

Compensated Grade

A grade, the curved portion of which has been reduced by an amount sufficient to compensate for the resistance due to the curvature.

Consist

The term "consist" usually refers to a set of locomotives coupled together to pull a train. The term may also be used to refer to an entire train—its locomotives and all its cars.

Control Valve

A device on locomotives or cars that charges the reservoirs and applies or releases brake cylinder pressure when brake pipe pressure reduces or increases.

Controlled Tractive Effort (CTE)

CTE mode is a method of limiting maximum tractive effort to 110,000 lbs. at speeds below 14 MPH. CTE mode will affect all linked remote consists if the controlling locomotive on the remote is so equipped. The effect of CTE mode is shown in System Special Instructions under Locomotive Information.

Conventional Car

A car such as a gondola, hopper, intermodal flat car, box car, bulkhead flat car or single well car. Does not include multi-platform spine cars or multi-well cars (articulated cars).

Coupler Limit

The location in the train where maximum trailing tonnage allowed for standard or high strength couplers occurs. Helper locomotive(s) may be used to reduce the amount of tonnage handled by a consist.

Cycle Train

A train that, except for the changing of locomotive power or for the removal or replacement of defective equipment, remains coupled as a consist and operates in a continuous loop.

DC Locomotive

Direct Current (DC) locomotives are equipped with DC traction motors and are affected by maximum continuous current ratings or short-time operating ratings.

Dead Engine Feature

A device used when a unit is handled dead-in-train. When the dead engine cutout cock is opened, the main reservoirs are charged from the brake pipe to operate the engine brakes.

Distributed Power (DP)

One or more locomotive consists that are remotely controlled from the lead locomotive.

Disturbed Track

A section of passable track that has a temporary speed restriction imposed because various defects or track maintenance have affected the integrity of the track.

Draft Forces

A term used to describe tension coupler forces in a train. Draft forces stretch out the slack in a train.

Draft Gear

The connection between the coupler rigging and the center sill. This connection receives and cushions the shocks associated with in-train forces or coupling.

Drawbar Forces (In-train Forces)

Forces at the couplers between cars and/or locomotives that may be either draft (stretched) or buff (compressed), depending on train operation.

Dynamic Brake

An electrical device that converts some of the energy developed by a moving locomotive into an effective retarding force:

- **High Capacity Dynamic Brakes** – Provide approximately 13,500 lbs. of effort per axle instead of 10,000 lbs. per axle as other dynamic brake systems.
- **Flat (Grid Control) Dynamic Brake System** – A dynamic brake system that provides retardation that is controlled solely by the position of the dynamic brake lever. Maximum retardation occurs at Position 8.
- **Taper (Speed Control) Dynamic Brakes** – A dynamic brake system that provides retardation relative to both speed and dynamic brake handle position. The higher the speed, the greater the retarding force developed for a given handle position. At higher speeds, full dynamic brake effort is reached at Position 4.

Dynamic Brake Holding Feature

A feature of the lead, controlling locomotive that allows dynamic braking effort when a PCS open condition exists.

Dynamic Brake Interlock (DBI)

A device that will automatically keep the locomotive brakes from applying when automatic brakes are applied during dynamic braking.

Energy Management Systems

Energy Management Systems (EMS) are placed on locomotives to assist engineers operating trains in the most fuel efficient manner possible. EMS uses global positioning technology to synchronize train location with track characteristics such as grades, curvature, and permanent speed limits. The onboard system calculates a trip plan that maximizes fuel efficiency while minimizing in train forces.

Equalization

A term used to describe the condition that exists when brake cylinder pressure and auxiliary reservoir pressure become equal.

Electronic Alertness Control

A safety control system that senses the activity of the engineer. If activity or manual resetting of the device does not occur within a predetermined time frame, a penalty brake application is initiated.

Electronic Controlled Brakes

An air brake system that can be controlled electronically is referred to as electronically controlled pneumatic brakes or ECP. The ECP systems that are being utilized are overlay brake systems. Overlay means the freight car brake system can be operated in either ECP or conventional pneumatic mode. All cars in the train must be equipped with ECP to operate in the electric mode.

Emergency Application

A rapid reduction of brake pipe pressure that causes the control valves to move to the emergency position and the vent valves to open. This equalizes auxiliary reservoir, emergency reservoir, and brake cylinder pressures.

Emergency Brake Valve

A manually operated device on equipment that initiates an emergency brake application.

Emergency ReservoirA storage volume, charged from the brake pipe, to receive and store air used during emergency brake applications and certain recharge features.

Engine/Locomotive

A self-propelled unit of equipment designed for moving other railroad rolling equipment in revenue service including a self-propelled unit designed to carry freight or passenger traffic, or both, and may consist of one or more units operated from a single control.

End-of-Train Telemetry SystemTelemetry Components

End-of-train telemetry device is a radio end-of-train telemetry system that consists of:

- End-of-train device (EOT) mounted on the trailing coupler of the last car or linked DP consist located on the rear of the train.
- Head-of-train device (HEU) in the locomotive.

A two-way EOT that has been armed (emergency enabled) provides the capability to initiate an emergency brake application at the rear of the train. An Emergency toggle switch associated with the HEU cab display is used to activate the EOT emergency valve. For this to happen, both the head-end and the rear-end units must be equipped for two-way communication and armed (emergency-enabled).

Equalizing Reservoir

A small reservoir used in automatic air brake operations. It is only cut-in on the controlling unit. When a brake pipe reduction occurs, air is drawn from the equalizing reservoir. The reservoir then automatically draws the proper amount of air from the brake pipe. For this reason, the brake pipe pressure and the equalizing reservoir pressure are always the same, except when they are equalizing after a brake pipe reduction or when the brake pipe is charging/recharging.

Foundation Brake Gear

The levers, rods, brake beams, etc. that connect the brake cylinder piston rod to the brake shoes so that when air pressure forces the piston out, the brake shoes are forced against the wheels.

Full Service Application

A brake pipe reduction made only to the point at which the auxiliary reservoir and brake cylinder pressures equalize. From a 90-psi fully charged air brake system, service equalization will occur following a 26-psi brake pipe reduction, at 64-psi. Any further reduction in the brake pipe pressure, except an emergency application, will not affect the amount of pressure in the brake cylinder. Additional reductions greater than 26-psi may result in the loss of the ability to obtain an emergency brake application.

Full Tractive Effort (FTE)

Allows locomotive to operate at full tractive effort at speeds below 14 MPH.

Grade (of Track)

Grade is other than level track and is usually expressed as a percentage. The percentage is the number of feet the track rises or falls in a distance of 100 feet. For example, a 1% ascending grade means that the track rises 1 foot in elevation for every 100 feet the equipment travels on the track. Unsecured rail equipment may roll on a grade.

- Grade designations include the following:
 - Light Grade: Less than 1.0%.
 - Heavy Grade: At least 1.0% for a distance of 3 miles or more.
 - Mountain Grade: 2.0% or greater for a distance of 2 miles or more.

Hand Brake

A mechanical arrangement of levers, chains, rods, gears, and fulcrum. When applied, the hand brake forces the brake shoes against the braking surfaces (wheel tread or disc) to control car or locomotive movement.

Head of Train Device (HEU)

A radio device located in the locomotive cab that communicates with an End of Train Device (EOT) or distributed power (DP) consist. The HEU displays:

- Last car brake pipe pressure.
- Last car motion status (moving or stopped).
- Marker light status (on or off).
- EOT battery status.
- Communication Status with EOT.
- Two-way Armed Status.
- Distance measurement referenced to locomotive movement.

And it provides:

- Audible alarms pertaining to status changes.
- Arming capability to a selected two-way EOT.
- Interface for Manual and Automatic initiated EOT emergencies.

Helper

Distributed power or manned helper added to a train to assist movement.

Head End Power (Passenger)

Power generated on board the locomotive of a passenger train used for purposes other than propelling the train, such as heating, illumination, ventilation, and air conditioning.

Horsepower Per Trailing Ton (HPT)

The total horsepower of all working locomotives divided by the total trailing weight of the train in tons. For example, a train powered by 15,000 horsepower and having a trailing weight of 4,285 tons has a 3.5 horsepower per trailing ton ratio (15,000 HP divided by 4,285 tons).

Independent Brake Valve

A brake valve that controls the locomotive brakes independent of the automatic brake valve handle position.

Independent Pressure Switch (IPS)

A device on a locomotive that cancels the extended range portion of dynamic braking or all dynamic braking when a sufficient independent brake application occurs. This switch prevents the locomotive wheels from sliding because of excessive braking.

Initial Terminal

Means a location where a train is originally assembled.

Interchange

A location where railroads exchange cars and/or locomotives.

Intercom System

A two-way voice communication system through which voice communication is transmitted and received.

Intermodal Equipment

Equipment designed to carry trailers, containers, or automobiles. Intermodal trains are trains made up entirely of intermodal equipment.

Isolation Switch

A switch on diesel electric locomotives that has two or three positions. In the RUN position, the unit is "on the line," responds to control, and develops power. In the ISOLATION (or Stop-Start) position, the unit is isolated from the consist and does not develop power or respond to control.

Linking

The process of electronically connecting DP or RCL equipment:

- The controlling lead unit to the controlling distributed power unit on a distributed power train.
- The controlling locomotive unit to the remote control transmitter(s).

Light Locomotive

One or more units, with or without a caboose, not coupled to cars.

Jackknife

Excessive lateral forces caused by heavy buff forces resulting in wheels lifting over the high rail or rail rolling over.

Journal

The part of a rail car axle on which the journal bearing rests or is mounted. Found at each end of each axle of a rail car.

Main Reservoir

An air reservoir on the locomotive for storing and cooling compressed air.

Minimum Continuous Speed

Minimum continuous speed is the slowest speed at which a DC locomotive can operate continuously in Throttle 8. Locomotive traction motors operating under these conditions develop the highest amperage possible before overheating. The minimum continuous speed varies and is indicated by the rating plate on the locomotive.

Minimum Reduction

The first position of the automatic brake valve that initiates a service application of 6 to 8-psi.

Man Down Feature

Safety feature on a remote control transmitter that transmits an emergency message over the radio when RCL transmitter is tilted beyond prescribed limits.

Manned Helper

A helper controlled by an engineer in the controlling unit of the locomotive helper consist.

Multiple Unit (MU)

Lead locomotive followed by one or more locomotives. Cables and hose connections between the locomotives allow control of the trailing units from the lead locomotive.

Note: Locomotive(s) handled DIC/Isolated at rear of consist will be considered MU'd when all air hose connections have been made and Rule 31.8.4 Standing Locomotive Air Brake Test performed.

MU Cutout Cock (MU-2-A, Dual-Ported Cutout Cock)

A device for cutting in or out the independent brake valve.

Non-articulated Multi-platform Cars

A car with multiple units (segments) that are connected with solid drawbars. Each unit is a stand-alone unit and does not share a common truck with another unit.

Off Air

Off air is when the brake system has not been connected to a continuous source of compressed air of at least 60 pounds per square inch (psi) for a period of 4 hours or more. The "source" of compressed air is brake pipe pressure being supplied at the locomotive(s) or yard air connection to the brake system. Brake pipe pressure at the opposite end of a brake system may be below 60 psi as long as 60 psi or more is being maintained at the charging end of the brake system and the brake pipe has continuity.

Overcharge

Brake equipment charged to a higher pressure than the regulating valve is adjusted for or can maintain. In such a condition, brakes on a portion of the train may not release.

PA System (public address system)

A one-way voice communication system.

Parking Brake

A Cab Car brake valve that controls the brakes on the lead truck of the Cab Car only and does not have the capability to actuate any brakes applied from the automatic brake valve handle.

Penalty Brake Application

An automatic full service brake application caused by various safety devices.

Pitch and Catch

Transferring controls of the locomotive to another linked RCT.

Plug Door

A type of side door used on insulated and refrigerator cars that fits flush with the side of the car when closed.

Positive Stop Protection (PSP)

Positive Stop Protection is designed to stop movements before reaching the end of a remote control zone if the RCO fails to control the movement.

Power Cut-off Switch (PCS)

An air-operated switch, activated by an emergency or penalty brake application, that drops the engine speed to idle on EMD locomotives or throttle notch 1 on GE locomotives.

Power Holding Feature

A feature of the lead, controlling locomotive that allows tractive effort to continue for approximately 20 seconds when a PCS open condition exists. This feature will not function when an emergency application is initiated by either the conductor's or the engineer's brake valve.

Pressure Maintaining Braking

Controlling train speed by making enough of a brake pipe reduction to stabilize speed on a grade, then allowing the automatic brake valve pressure maintaining feature to hold the brake application constant regardless of brake pipe leakage.

Pressure Maintaining Feature

A system designed to overcome brake pipe leakage both in the RELEASE and SERVICE positions of the automatic brake valve.

Primary Remote Control Operator (Primary Operator)

The employee operating the transmitter while controlling a remote control movement.

Qualified Person (Freight)

A train service employee given fundamental training on freight car inspections and air brake tests.

Qualified Person (Passenger)

A train service employee given fundamental training on passenger car inspections and air brake tests.

Qualified Mechanical Inspector (Carman)

A person, such as a carman, who has been given more extensive training that encompasses more detailed inspection and repairs.

Qualified Maintenance Person (Passenger Car Inspector)

A person, such as a carman, who has been given more extensive training that encompasses more detailed inspection and repairs and is qualified to conduct a Passenger Class I Brake Test.

Remote Control Locomotive

A locomotive equipped with radio control, operated by a remote control operator.

Remote Control Operator (RCO)

Employee trained in remote control operations who uses an RCT to operate a remote control locomotive and possesses a Class 6 or 7 operator's license.

Remote Control Transmitter (RCT)

A portable unit attached to an RCO vest. The RCT sends commands to the RC receiver on the locomotive.

Reduction (of the brake pipe)

A decrease in brake pipe pressure at a rate and of an amount sufficient to cause a train brake application to be initiated or increased.

Reduction Relay Valve

A device on long cars that helps reduce brake pipe pressure during service and emergency brake applications. The valve compensates for the added length of brake pipe on long cars.

Regulating Valve

The valve that reduces air pressure from the locomotive's main reservoir to the desired pressure in the brake pipe. The regulating valve will automatically maintain that pressure when the automatic brake valve is in the RELEASE position.

Retaining Valve

A manually operated valve used on cars to exhaust brake cylinder pressure completely or to maintain a predetermined pressure.

Restricted Car Limits

A defined number of cars immediately behind the lead locomotive consist, immediately ahead of and behind an entrained helper, or immediately ahead of a rear helper. The number of cars within a restricted car limit can change based on the train tonnage, territory type, and number of powered axles for each power consist.

Restricted Car Placement

When rules restrict the placement of cars, each platform or well is to be considered one car.

Service Application

When brake pipe pressure exhausts at a service rate to apply the train brakes.

Slack Action

Movement of part of a coupled train at a different speed than another part of the same train.

Slug

A unit with traction motors but no diesel engine and incapable of propelling itself. The unit receives electrical power through a power cable from an adjacent, specially equipped locomotive. Slugs are used where low speeds and high tractive effort are needed.

Solid Block (of cars)

One or more cars coupled together that:

- Are charged or have not been off air for more than 4 hours.
- Have been tested as outlined in Rule 30.10.1 (Procedure for Inspection and Test).
- Have been inspected as outlined in Rule 1.33 (Inspection of Freight Cars).
- Have been inspected as outlined in Section III (Inspection) of Instructions for Handling Hazardous Materials.
- Have remained continuously and consecutively coupled with the train line remaining connected unless:
 - Removing defective equipment from the solid block.
 - Separated into multiple solid blocks due to space or trackage constraints. Cars must be re-coupled in the same relative order as removed.

Split Service Reduction

A term describing a method of making an air brake application in two or more steps to produce a more uniform application.

String-Lining

Cars pulled off the inside of curves, trying to approach a straight line when the train is in a draft condition.

Standard and High Strength Couplers

Each car is to be considered equipped with a standard type coupler unless it is known the car is equipped with high strength couplers. Coal cars, covered hopper cars, auto rack cars, and cars designed to carry TOFC/COFC are equipped with high strength couplers. If it is not known that a car is equipped with high strength couplers, it can be determined by looking at the coupler casting identification located on top of the coupler. A high strength coupler will have the letter "E", "EX", or "EA" as the last character of identification. Examples of high strength coupler identifications are E60HTE, SBE60CE, E60DE, and EF512WEX.

Territory Code

Code "L" is used to identify territories or corridors with relatively light grades and low to moderate track curvature in the coupler limit tables.

Code "H" is used to identify territories or corridors with heavier grades and severe track curvature in the coupler limit tables.

Thermal Cracks (in wheels)

Cracks in a railroad wheel, normally caused by heat generated on the tread and flange of the wheel from excessive braking.

Throttle Modulation

The action of adjusting the throttle one notch at a time between idle and position 8 to control train speed without the application of air brakes.

Tons per Dynamic Brake Axle (TPDBA)

The total gross trailing tonnage of the train divided by the total number of dynamic brake axles, including helper locomotives, operating in dynamic brake.

When making this calculation, include in the gross trailing tonnage the weight of any locomotive, including a helper locomotive, not operating in dynamic brake or with dynamic brake cut-out.

Tons per Operative Brake (TPOB)

The gross trailing tonnage of the train divided by the total number of cars having operative brakes in the train. There is 1 brake per conventional car (See SSI Item 2-F, Table C for other car types).

Tons per Equivalent Powered Axle (TPA):

- **TPA** is calculated by dividing the total trailing tonnage by the total equivalent powered axles (includes lead and helper power). The weight of dead or isolated locomotives must be added to the total trailing tonnage before making this calculation.
- **TPA Limit** – The maximum tonnage per equivalent powered axle specified over a given route. Trains may not exceed maximum TPA at origin, unless there is a plan in place to pick up additional power or reduce tonnage (scheduled set-out) prior to reaching the ruling grade. TPA may only be exceeded en route when authorized by proper authority. Train consist TPA numbers will govern any discrepancies.

Track-Train Dynamics

A general term used to describe the interaction of a locomotive and cars with the track structure during the movement of a train. Track-Train Dynamics are affected by variables such as weather, speed, train make-up, train handling, condition of track and equipment, grade, curvature, and operating policies.

Transfer Train Movement

An engine with one or more cars that travels between a point of origin and a point of final destination not exceeding 20 miles. Such trains may pick up or set out while en route to destination.

Tread Build-up

Tread build-up is the formation of metal on the running surface of a wheel. Tread build-up on a car can occur due to:

- Failure to remove a hand brake.
- Air brake system defect on the car.
- Retainer left in the retaining position.

Unattended

Equipment is unattended when an employee is not in a position to immediately control the brake system (hand or air brakes).

Attended cars must be properly secured with hand brakes when:

- Air brakes are not applied in emergency.
- There are less than 5 cars.
- Standing on grade exceeding 1%.

Undesired Emergency (UDE)

An unintentional emergency application of train air brakes.

Unit Train

A train made up entirely of cars used to transport coal, grain, ore, potash, molten sulfur, soda ash, phosphate rock, oil, taconite, or other bulk commodities.

- Empty Bulk Commodity Unit Train is made up entirely of empty cars.
- Loaded Bulk Commodity Unit Train is made up entirely of loaded cars.

Unplanned Stop

The shortest stop possible without using an emergency application.

Vent Valve

A valve attached to the brake system of a car or locomotive. The valve responds to an emergency brake pipe pressure rate of reduction by venting the brake pipe at each vehicle to the atmosphere. As a result, the emergency application spreads throughout the train.

Vestibule

The area of a passenger car that normally does not contain seating and is used for passing from the seating area to side exit doors.

Wheel Sliding

When the wheel rotates slower than lengthwise movement dictates.

Wheel Slipping

When the wheel rotates faster than lengthwise movement dictates.

Yard Test Plant

A system of piping and fittings that supplies air at convenient locations to charge and to test cars without a locomotive. Charging pressure must be adjusted to 90-psi.

Rule Updated Date

May 2, 2016

[^Top](#)

[Union Pacific Rules](#)

[Safety Rules](#)

STATEMENT: Statement of Safety Policy

- [STATEMENT: Statement of Safety Policy](#)

STATEMENT: Statement of Safety Policy

It is Union Pacific Railroad's policy to conduct its business in a manner that addresses the safety of employees, contractors, customers and the communities we serve. Union Pacific will strive to prevent all incidents, accidents, injuries and occupational illnesses through the active participation of all stakeholders. The company is committed to continuous efforts to identify and manage safety risks associated with its activities.

Accordingly, Union Pacific's policy is to:

- Encourage and support:
 - Employee engagement in workplace safety;
 - A Total Safety Culture;
 - Care for employees;
- Maintain infrastructure and equipment, establish documented safety management systems, provide training and conduct operations in a manner aimed at safeguarding people and property;
- Communicate with employees, contractors, communities and customers with respect to their roles and responsibilities surrounding rail safety.
- Comply with all applicable laws, regulations, rules and instructions.
- Respond quickly, effectively, and with care to emergencies, accidents, or incidents in cooperation with authorized government agencies;
- Undertake appropriate reviews and evaluations of its operations to measure progress, foster compliance with this policy and continually improve.

Rule Updated Date

May 2, 2016

System Special Instructions

Effective Date: May 2, 2016

[^Top](#)

[Union Pacific Rules](#)

Safety Rules

70.0: GENERAL SAFETY INSTRUCTIONS

Chapter Introduction

70.0 GENERAL SAFETY INSTRUCTIONS

- [70.0: GENERAL SAFETY INSTRUCTIONS](#)
- [70.1: Safety Responsibilities](#)
- [70.2: Comply With Instructions](#)
- [70.3: Job Briefing](#)
- [70.4: Removal of Unauthorized Persons](#)
- [70.5: Criminal Activity](#)
- [70.6: Lifting and Moving Material](#)
- [70.6.1: Lifting with Two or More Employees](#)
- [70.7: Protection of Body Parts](#)
- [70.8: Safety Around Machines and Equipment](#)
- [70.9: Door or Hatch](#)
- [70.10: Cabinets](#)
- [70.11: Office Equipment and Furniture](#)
- [70.12: Protruding Objects](#)
- [70.13: Energizing Machinery](#)
- [70.14: Damaged or Defective Machinery](#)
- [70.15: Compressed Air / Gas](#)
- [70.16: Drop or Throw Objects](#)
- [70.17: Rail Under Tension](#)
- [70.18: Fusees](#)
- [70.19: Air Contaminants](#)
- [70.20: Internal Combustion Engines](#)
- [70.21: Spills](#)
- [70.22: Skin Protection](#)
- [70.23: Hazard Communication Standard](#)
- [70.24: Drums and Containers](#)
- [70.25: Working with Refrigeration Systems](#)

70.0: GENERAL SAFETY INSTRUCTIONS

70.0 GENERAL SAFETY INSTRUCTIONS

Rule Updated Date

July 2, 2013

[^Top](#)

70.1: Safety Responsibilities

70.1 <i>Ref. Rule(s)</i> 1.1 1.1.1 1.1.2	Safety Responsibilities Employees are empowered to work safely and must: <ul style="list-style-type: none">• Be responsible for personal safety and accountable for their behavior.• Correct or protect any unsafe condition or practice and report to proper authority.• Maintain situational awareness.• Work within the limits of physical capabilities. Excessive force must not be used to accomplish tasks.
---	--

Rule Updated Date

July 2, 2013

[^Top](#)

70.2: Comply With Instructions

70.2 <i>Ref. Rule(s)</i> 1.13	Comply With Instructions Employees must comply with instructions contained in company publications and required documents.
--	--

Rule Updated Date

July 2, 2013

[^Top](#)

70.3: Job Briefing

<p>70.3</p> <p><i>Ref. SRM Section R</i></p>	<p>Job Briefing</p> <p>A. Job Briefing Requirement</p> <p>Job briefing must be conducted:</p> <ul style="list-style-type: none">• With all individuals involved in the task before work begins.• If work plan or work group changes. <p>B. Conduct Job Briefing</p> <p>Job briefing must:</p> <ul style="list-style-type: none">• Consider existing and potential hazards that might be involved as a result of:<ul style="list-style-type: none">• Weather.• Scope of work.• Tools and equipment.• Identify PPE requirements.• Assign responsibility.• Explain group / individual assignments, while considering abilities and experience.• Be aware of work groups and equipment in work area.• Identify job location.• Verify understanding of instructions and assignments. <p>For complex jobs:</p> <ul style="list-style-type: none">• Brief only a portion of the job.• Conduct additional briefing(s) as the job progresses. <p>Complete and sign the job briefing document when applicable.</p>
---	---

Rule Updated Date

July 2, 2013

[^Top](#)

70.4: Removal of Unauthorized Persons

<p>70.4</p> <p><i>Ref. RMCC</i> 888-877-7267</p>	<p>Removal of Unauthorized Persons</p> <p>Unauthorized persons or trespassers on company property must be told to leave the premises, unless confronting the person(s) would be unsafe.</p> <p>If the person(s) refuse to leave, or if confronting the person(s) would be unsafe, request immediate assistance from Railroad Police (RMCC) or local law enforcement authorities.</p> <p>When possible, Railroad Police must be advised of all unauthorized persons or trespassers on company property.</p>
---	---

Rule Updated Date

July 2, 2013

[^Top](#)

70.5: Criminal Activity

<p>70.5</p> <p><i>Ref. RMCC</i> 888-877-7267</p>	<p>Criminal Activity</p> <p>Immediately contact Railroad Police (RMCC) or local law enforcement authorities to report suspected criminal activity on company property.</p>
---	---

Rule Updated Date

July 2, 2013

[^Top](#)

70.6: Lifting and Moving Material

<p>70.6</p>	<p>Lifting and Moving Material</p> <p>Before lifting or moving:</p> <ol style="list-style-type: none"> 1. Check the load for size, weight, stability, and grip. 2. Make sure the pathway to be used is clear of obstructions, debris or other conditions which may cause loss of footing. 3. Inspect the area where material will be placed, preferably at waist height and without reaching. 4. Choose the proper lifting technique (e.g., squat, semi-stoop, or balanced one-hand lift).
--------------------	---

	<p>Each person is responsible for determining their lifting limitations. Obtain additional help or mechanical assist device(s) to lift or handle heavy or awkward objects.</p> <p>While lifting, observe the following principles:</p> <ul style="list-style-type: none"> • Ensure secure footing and a good grip on the materials. • Keep the object close to your body. • Keep your upper body erect. • Lift smoothly—do not use jerky motions. • Do not lift and twist at the same time.
--	--

Rule Updated Date

July 2, 2013

[^Top](#)

70.6.1: Lifting with Two or More Employees

<p>70.6.1</p>	<p>Lifting with Two or More Employees</p> <p>Conduct a job briefing before lifting to define:</p> <ul style="list-style-type: none"> • Responsibilities. • Techniques for the type of lift being performed. • Which individual (positioned at either end) will give commands for all movements (lifting, walking, lowering, or throwing). <p>When possible, avoid walking backward or sideways.</p>
----------------------	---

Rule Updated Date

July 2, 2013

[^Top](#)

70.7: Protection of Body Parts

<p>70.7</p>	<p>Protection of Body Parts</p>
--------------------	--

	Do not place hands, fingers, feet, legs or any part of your body in a position where they might be struck, caught, pinched or crushed.
--	--

Rule Updated Date

July 2, 2013

[^Top](#)

70.8: Safety Around Machines and Equipment

<p>70.8 <i>Ref. SRM</i> <i>Section H</i></p>	<p>Safety Around Machines and Equipment</p> <p>When tools, equipment or machinery becomes jammed or obstructed in any manner, it must be stopped and lockout / tagout procedures followed.</p> <p>Do not enter areas where you could be caught in the operation of machinery or equipment.</p>
---	---

Rule Updated Date

July 2, 2013

[^Top](#)

70.9: Door or Hatch

<p>70.9 <i>Ref. Rule(s)</i> <i>70.5</i> <i>81.15</i> <i>81.20</i></p>	<p>Door or Hatch</p> <p>Face door or hatch when opening or closing and use handle or grab iron. Keep hands and fingers clear of sides and edges.</p> <p>Use caution as wind or slack action may cause doors or hatches to slam shut.</p>
--	---

Rule Updated Date

July 2, 2013

[^Top](#)

70.10: Cabinets

70.10	Cabinets The contents of cabinets must be arranged and distributed so as to not make the cabinet top heavy. Drawers on cabinets, desks, tool boxes, etc., must be closed when not in use. Do not open more than one drawer at one time.
--------------	--

Rule Updated Date

July 2, 2013

[^Top](#)

70.11: Office Equipment and Furniture

70.11	Office Equipment and Furniture A. Paper Cutters <ul style="list-style-type: none">• Exercise caution while operating paper cutters, trimmers and power paper punches.• Keep fingers clear of cutting blades and make sure blade guards are in position.• Paper cutter blades must be left in the closed position and secured after use. B. Defects <p>Report sharp edges, splinters or defective parts on office furniture or equipment for repair. If unsafe, appropriate action must be taken to protect the hazard.</p> C. Cords <p>Permanent installations of equipment with cords (telephone, electrical, computer, etc.) in walking areas must be encased. Action must be taken to protect temporary installations.</p> D. Chairs, Benches, Tables and Desks <ul style="list-style-type: none">• Do not stand on chairs, benches. Unsafe chairs or benches must not be used.• Chairs must not be repaired or altered in any way except by an authorized repair service.• While seated in a chair, all chair legs must remain in contact with the floor.• Do not sit or stand on tables or desks.
--------------	--

Rule Updated Date

July 2, 2013

[^Top](#)

70.12: Protruding Objects

70.12	Protruding Objects Remove or flatten protruding objects (nails, screws, banding, etc) noticed prior to handling materials or performing duties.
-------	---

Rule Updated Date

July 2, 2013

[^Top](#)

70.13: Energizing Machinery

70.13	Energizing Machinery Inspect affected areas and ensure it is safe before turning on electricity, gas, steam, fuel oil, air, water or putting any machinery in operation.
-------	--

Rule Updated Date

July 2, 2013

[^Top](#)

70.14: Damaged or Defective Machinery

70.14	Damaged or Defective Machinery Danger signs / tags must be placed: <ul style="list-style-type: none">• At locations where there are exposed energized circuits.
-------	---

	<ul style="list-style-type: none"> • On damaged or defective machinery. • On switches, valves, or other apparatus. <p>Only authorized personnel may remove signs / tags when safe conditions are restored. Do not operate machines, switches, valves, or other apparatus with attached danger signs, tags, or banners.</p>
--	--

Rule Updated Date

July 2, 2013

[^Top](#)

70.15: Compressed Air / Gas

70.15	<p>Compressed Air / Gas</p> <p>Compressed air or gas must not be used:</p> <ul style="list-style-type: none"> • To blow dust or dirt from the body or clothing. • For general cleanup in place of a broom, vacuum, sweeper, etc.
--------------	---

Rule Updated Date

July 2, 2013

[^Top](#)

70.16: Drop or Throw Objects

70.16	<p>Drop or Throw Objects</p> <p>Do not drop or throw tools, materials or other objects that might cause:</p> <ul style="list-style-type: none"> • Personal injury. • Fire. • Equipment or property damage.
--------------	--

Rule Updated Date

July 2, 2013

[^Top](#)

70.17: Rail Under Tension

70.17	<p>Rail Under Tension</p> <p>Close observation must be made to determine whether rail is too tight to safely perform work:</p> <ul style="list-style-type: none">• At point where there has been a derailment.• In periods of extreme temperature.• At location where rail is kinked or damaged.• Before beginning to renew rail or to remove part of fastenings from one or more rails.
-------	--

Rule Updated Date

July 2, 2013

[^Top](#)

70.18: Fusees

70.18	<p>Fusees</p> <p>A. Fusee Storage</p> <p>Fusees must be stored:</p> <ul style="list-style-type: none">• In metal containers inside motor vehicles and other designated equipment.• In flagging kits or racks in engines and cabooses.• In the original shipping container in a storage cabinet.• Away from high temperatures, fire or open flame. <p>B. Fusee Use</p> <p>Fusees must be used for signaling or flagging purposes only. When using fusees, use caution to avoid injuries caused from burns.</p> <p>When lighting fusees:</p> <ol style="list-style-type: none">1. Hold the end to be lighted down and away from your body.2. Strike away from the body. <p>Extinguish the fusee after giving hand signals.</p>
-------	---

	<p>Do not place fusees:</p> <ul style="list-style-type: none"> • Where they may cause a fire. • At locations where they may become wet. • Where they can be obtained by unauthorized persons. • On open bridge decks, trestles, or approaches when lit. • Near flammable or combustible material. <p>Fusees showing evidence of having been soaked in water, oil, etc., or otherwise damaged, must not be used and must be disposed of properly.</p> <p>Misuse or horseplay involving fusees is strictly prohibited.</p>
--	---

Rule Updated Date

May 2, 2016

System Special Instructions

Effective Date: May 2, 2016

[^Top](#)

70.19: Air Contaminants

70.19	<p>Air Contaminants</p> <p>Take precautions to reduce exposure when working around gases, fumes, mists, vapors, or dusts emitted by equipment, vehicles or work processes.</p> <p>Do not enter a suspected or confirmed contaminated area without following prescribed procedures and using required personal protective equipment.</p>
--------------	--

Rule Updated Date

July 2, 2013

[^Top](#)

70.20: Internal Combustion Engines

<p>70.20</p> <p><i>Ref. Rule(s)</i> 79.9</p>	<p>Internal Combustion Engines</p> <p>Avoid excessive exposure to exhaust fumes from internal combustion engines. Such engines must not be allowed to run unless adequate ventilation exists. Do not expose fresh air intake systems to internal combustion engine exhaust.</p>
---	--

Rule Updated Date

July 2, 2013

[^Top](#)

70.21: Spills

<p>70.21</p> <p><i>Ref. RMCC</i> 888-877-7267</p> <p><i>Ref. Rule(s)</i> 8620 Section 8</p>	<p>Spills</p> <p>Avoid contact with spilled materials, or commodities at accident sites until the materials have been identified and safe handling procedures determined.</p> <p>If safe to do so, take steps to stop the leak or contain the spillage of oil, hazardous, or environmentally sensitive materials spilled from any source.</p> <p>It is the responsibility of the employee who discovers this spill to immediately notify the appropriate authority and RMCC advising:</p> <ul style="list-style-type: none"> • The location of the spill. • Material and amount spilled. • Distance to nearest public waters. • Any other information that may be pertinent. <p>If a fire or vapor cloud is visible from an unknown source or one known to be toxic, move yourself and others uphill and upwind to a distance of at least one half mile, further if deemed advisable, and contact RMCC.</p> <p>Assist Emergency Response personnel and do not enter the area until advised the area is safe.</p>
--	---

Rule Updated Date

July 2, 2013

[^Top](#)

70.22: Skin Protection

70.22	<p>Skin Protection</p> <p>Do not:</p> <ul style="list-style-type: none"> • Clean any part of your body with gasoline or solvents. • Wear clothing contaminated with gasoline, solvents or oils.
-------	--

Rule Updated Date

July 2, 2013

[^Top](#)

70.23: Hazard Communication Standard

<p>70.23</p> <p><i>Ref. SRM Section I</i></p> <p><i>29 CFR 1910.1200</i></p>	<p>Hazard Communication Standard</p> <p>The Hazard Communication Standard (HCS), also known as Right to Know (RTK) was developed by the Occupational Safety and Health Administration (OSHA). It was designed to benefit employees and it is the responsibility of all employees to know and comply with provisions of the HCS.</p> <p>Before handling containers or using chemical substances, employees must:</p> <ul style="list-style-type: none"> • Be aware of the contents and any hazardous conditions that may exist. • Take all necessary precautions to ensure the safety of themselves and others. • Wear approved protective equipment when required. • Be aware of preventative measures associated with the chemicals they are using to avoid accidents and injury. <p>Only chemicals, paints, compounds or other products approved by Union Pacific will be used.</p>
--	--

Rule Updated Date

July 2, 2013

[^Top](#)

70.24: Drums and Containers

70.24	Drums and Containers
-------	----------------------

<p><i>Ref. Environmental Mgt. Group. Laws, Policies, and Procedures Web page: Drum Storage, Reuse and Disposal</i></p>	<p>Label all drums, totes, tanks and containers to show current contents.</p> <p>When opening drums that have been exposed to heat from the sun or other sources, use proper protective equipment, stand in the clear and open slowly until pressure is released.</p> <p>Do not pour contents of drums or barrels on the ground or in drains. Be certain all contents are disposed of properly. If any doubt should arise as to proper disposal of drum or barrel contents, contact your supervisor.</p> <p>Drums must be kept closed, except for immediate use. Drums with bung holes that are recessed or level with the barrel rim must be positioned to the side with the barrel tipped at least one inch to prevent moisture from entering barrel.</p>
--	---

Rule Updated Date

July 2, 2013

[^Top](#)

70.25: Working with Refrigeration Systems

<p>70.25</p>	<p>Working with Refrigeration Systems</p> <p>Only qualified employees shall service or repair refrigeration systems and must follow manufacturer's instructions.</p>
---------------------	---

Rule Updated Date

July 2, 2013

[^Top](#)

71.0: PERSONAL PROTECTIVE EQUIPMENT

Chapter Introduction

71.0 PERSONAL PROTECTIVE EQUIPMENT

- [71.0: PERSONAL PROTECTIVE EQUIPMENT](#)
- [71.1: General Guidelines](#)
- [71.2: Hearing Protection](#)
- [71.2.1: Service, Repair and Mechanical Facilities](#)
- [71.2.2: Locomotives](#)
- [71.2.3: Near Retarders](#)
- [71.2.4: Roadway or Work Equipment](#)
- [71.2.5: Jet Blowers or Pile Drivers](#)
- [71.2.6: Other Equipment and Tools](#)
- [71.2.7: Intermodal Ramps](#)
- [71.3: Gloves](#)
- [71.4: Hard Hats](#)
- [71.5: Eye Protection](#)
- [71.5.1: Areas that Require Eye Protection](#)
- [71.5.2: Contact Lenses](#)
- [71.5.3: Dark Lenses](#)
- [71.6: Proper Attire](#)
- [71.6.1: Highly Visible Outer Wear](#)
- [71.7: Footwear](#)
- [71.8: Visitors and Contractors](#)
- [71.9: Respirators](#)

71.0: PERSONAL PROTECTIVE EQUIPMENT

71.0 PERSONAL PROTECTIVE EQUIPMENT

Rule Updated Date

July 2, 2013

[^Top](#)

71.1: General Guidelines

<p>71.1</p> <p><i>Ref. SRM Section A</i></p>	<p>General Guidelines</p> <p>Personal Protective Equipment (PPE) used on duty must:</p> <ul style="list-style-type: none">• Be approved by the Safety Department.• Only be used as intended.• Be used where conditions of the job require and in accordance with rules, instructions, or directions from supervisor.• Not be altered or used if altered. <p>Anyone entering designated areas or working near others wearing PPE must also wear the required PPE.</p> <p>Keep all PPE issued to you in good condition, properly fitted, and replace as required to maintain intended protection.</p>
---	---

Rule Updated Date

July 2, 2013

[^Top](#)

71.2: Hearing Protection

<p>71.2</p> <p><i>Ref. SRM Section D</i></p> <p><i>Ref. Rule(s) 71.1</i></p> <p><i>29 CFR 1910.95 29 CFR 1926.52</i></p> <p><i>49 CFR 227 49 CFR 229</i></p>	<p>Hearing Protection</p> <p>Wear approved hearing protection. In some cases, wearing dual protection is required, which consists of ear plugs and muffs.</p>
---	--

Rule Updated Date

July 2, 2013

[^Top](#)

71.2.1: Service, Repair and Mechanical Facilities

71.2.1	<p>Service, Repair and Mechanical Facilities</p> <p>Hearing protection is required when working in or around:</p> <ul style="list-style-type: none">• Designated service, repair, or mechanical facilities.• Areas where load testing, sand blasting or grit blasting equipment is in operation. <p>Hearing protection is not required when:</p> <ul style="list-style-type: none">• In designated low noise areas, identified by Safety Department.• In offices with doors and windows closed.
---------------	--

Rule Updated Date

July 2, 2013

[^Top](#)

71.2.2: Locomotives

71.2.2	<p>Locomotives</p> <p>Employees must wear hearing protection anytime they are within a radius of 150 feet of a locomotive. However, hearing protection is not required for employees who are inside the cab with the cab doors and windows closed.</p>
---------------	---

Rule Updated Date

July 2, 2013

[^Top](#)

71.2.3: Near Retarders

71.2.3	<p>Near Retarders</p> <p>Hearing protection is required within 150 feet of master or group retarders during humping and trimming operations. Dual hearing protection (ear plugs and muffs) is required within 10 feet of these operations.</p> <p>When near operating retarders:</p> <ul style="list-style-type: none">• Engine windows and doors must be closed when passing through operating retarders. All occupants must be inside the locomotive cab.• Do not ride a car through operating retarders. <p>Exception: Hearing protection is not required when riding through or working around Dowty or Inert retarders, unless protection is needed for other purposes.</p>
--------	---

Rule Updated Date

July 2, 2013

[^Top](#)

71.2.4: Roadway or Work Equipment

71.2.4	<p>Roadway or Work Equipment</p> <p>Hearing protection is required within 150 feet of operating roadway or work equipment.</p>
--------	---

Rule Updated Date

July 2, 2013

[^Top](#)

71.2.5: Jet Blowers or Pile Drivers

71.2.5	<p>Jet Blowers or Pile Drivers</p>
--------	---

	Hearing protection is required within 150 feet of operating jet blowers or pile drivers.
--	--

Rule Updated Date

July 2, 2013

[^Top](#)

71.2.6: Other Equipment and Tools

<p>71.2.6 <i>Ref. SRM Section D</i></p>	<p>Other Equipment and Tools</p> <p>Hearing protection is required when operating or within 15 feet of any of the following equipment or tools in operation:</p> <ul style="list-style-type: none">• Welding or cutting equipment (oxy-fuel, gas, or electric).• Abrasive wheel grinder or sander (pedestal, bench, or portable).• Air lance or nozzle (for blowing compressed air).• Chain saw.• Nail gun (air or powder-actuated).• Power saw, planer, router, or joiner.• Equipment or tools powered by:<ul style="list-style-type: none">○ Air.○ Combustion engine.○ Electricity.○ Hydraulic.○ Pneumatic.○ Steam.
--	---

Rule Updated Date

July 2, 2013

[^Top](#)

71.2.7: Intermodal Ramps

<p>71.2.7</p>	<p>Intermodal Ramps</p> <p>Employees must wear hearing protection anytime they are within a radius of 25 feet of operating lift or transfer equipment.</p>
----------------------	---

	Hearing protection is not required for employees who are inside the cab with the cab doors and windows closed.
--	--

Rule Updated Date

July 2, 2013

[^Top](#)

71.3: Gloves

<p>71.3 <i>Ref. SRM Section A</i></p>	<p>Gloves Hand protection is provided and employees are required to use appropriate hand protection when hands are exposed to hazards such as:</p> <ul style="list-style-type: none"> • Skin absorption of harmful substances. • Cuts, lacerations or abrasions. • Punctures. • Chemicals. • Thermal burns. • Harmful temperature extremes.
--	--

Rule Updated Date

July 2, 2013

[^Top](#)

71.4: Hard Hats

<p>71.4 <i>Ref. SRM Section A</i></p>	<p>Hard Hats Hard hats must be worn at the following facilities and work sites:</p> <ul style="list-style-type: none"> • Locomotive. • Car. • Engineering. • Intermodal.
--	---

- In other designated hard hat areas as specified by department head.

Hard hats are not required in:

- Office areas and lunch rooms.
- Vehicles or equipment that provide overhead protection against falling objects.
- Areas exempted with documentation by the appropriate department head.

Hard hats must not be altered or worn:

- Over baseball or similar type caps.
- With liners that interfere with fit and function of the hard hat.
- Backwards, unless attachments being used are designed for such use and suspension is reversed.

Bump caps will not be used to fulfill hard hat requirements.

Exceptions:

1. A track welder, wearing a Powered Air Purifying Respirator (PAPR), will not be required to wear a hard hat when working in areas where there is no potential for injury to the head from falling objects.
2. Intermodal personnel are not required to wear hardhats when:
 - Mechanical personnel are working under intermodal equipment.
 - Hostlers are on equipment adjusting air lines.
 - Personnel are going to and from personal vehicle parking areas.
3. Transportation employees are not required to wear hardhats when:
 - Moving locomotives to or from locomotive service areas,
 - Spotting cars within car or maintenance of way repair facilities.
 - Switching cars within intermodal ramps

Rule Updated Date

May 2, 2016

System Special Instructions

Effective Date: May 2, 2016

[^Top](#)

71.5: Eye Protection

<p>71.5 <i>Ref.SRM</i> <i>Section A, B</i></p>	<p>Eye Protection</p> <p>While on duty or on company property, wear company approved, spectacle-type glasses that cover the entire eye (no half glasses).</p> <p>Eye protection is not required in:</p> <ul style="list-style-type: none">• Office areas and lunch rooms.• Enclosed vehicles (including locomotives).• Walking to or from on duty point.• Areas specifically designated by the department head.
---	---

Rule Updated Date

July 2, 2013

[^Top](#)

71.5.1: Areas that Require Eye Protection

<p>71.5.1 <i>Ref. SRM</i> <i>Section A</i></p>	<p>Areas that Require Eye Protection</p> <p>Safety Glasses. Wear spectacle-type, safety glasses with side shields when on duty at:</p> <ul style="list-style-type: none">• Designated service, repair, or mechanical facility.• Maintenance-of-way work sites, shops, and facilities. <p>Employees requiring corrective lenses must wear either company-approved prescription safety glasses or coverall-type safety goggles.</p> <p>Specific work activities may require additional eye protection. Go to the Safety Department web site "Safety Resource Manual, Personal Protective Equipment Policy (Assessment of Personal Protective Equipment), Section A", for application of this rule to other specific tasks.</p> <p>Other Glasses. Train, engine, yard and all other personnel on duty must wear company approved safety glasses or FDA-approved prescription eyewear.</p>
---	--

Rule Updated Date

July 2, 2013

[^Top](#)

71.5.2: Contact Lenses

71.5.2	Contact Lenses Do not wear contact lenses when working in areas where wind, dust, and other foreign matter constitute a hazard or when chemicals may cause a splash, mist, or vapor hazard. When safety glasses are required, employees who wear contact lenses must have a pair of corrective glasses available while on duty.
--------	--

Rule Updated Date

July 2, 2013

[^Top](#)

71.5.3: Dark Lenses

71.5.3	Dark Lenses The wearing of dark lenses under insufficient lighting conditions is prohibited, except when engaged in an operation requiring dark lenses.
--------	---

Rule Updated Date

July 2, 2013

[^Top](#)

71.6: Proper Attire

71.6	Proper Attire Wear clothing that allows you to perform your duties safely and efficiently. Clothing must not:
------	--

	<ul style="list-style-type: none"> • Interfere with vision, hearing and free use of hands and/or feet. • Block peripheral vision. When hooded sweatshirts and/or coats or similar type clothing are worn, they must be secured around the face to prevent the blocking of peripheral vision. • Be torn, baggy, ragged, loose, or worn so that it could snag easily or catch on cars, engines, tools, machinery or other equipment but must allow freedom of movement. This includes neckties or similar clothing. <p>When working outside, employees must wear:</p> <ul style="list-style-type: none"> • Pants that cover the legs. • Shirts with at least quarter-length sleeves that cover the back, shoulders, chest, abdomen and provide protection from sun, insects, abrasions or scratches. <p>Jewelry that may affect one's safe performance of their duties must not be worn.</p> <p>Hair, including beards, must be worn in a manner to permit safe performance of duties.</p>
--	---

Rule Updated Date

July 2, 2013

[^Top](#)

71.6.1: Highly Visible Outer Wear

<p>71.6.1</p>	<p>Highly Visible Outer Wear</p> <p>A. ANSI Class II/III highly visible outer wear:</p> <ul style="list-style-type: none"> • Green/yellow outer wear with reflective striping must be worn by employees other than those in the Engineering Department. However: <ul style="list-style-type: none"> • Remote control operators working as a RCO may wear an orange RCO vest. • Highly visible outer wear is not required when in: <ul style="list-style-type: none"> • Office areas and lunch rooms. • Enclosed vehicles (including locomotives). • Parking lots when tracks will not be fouled. • Areas specifically designated by the department head. <p>Note: Vests used by employees working on railroad cars and engines must be the 5-point, tear-away vests certified for use by Union Pacific.</p>
----------------------	---

	<p>Engineering and designated mechanical employees must wear orange outer wear with reflective striping. However:</p> <ul style="list-style-type: none"> • Welders must also wear required protective clothing when welding. • Lookouts must wear yellow/green vest with reflective striping, with "Lookout" printed on the vest. • Special Agents are not required to wear highly visible outer wear during: <ul style="list-style-type: none"> • Traffic stops. • Pedestrian stops. • Searches. • Undercover assignment or when conducting surveillance. <p>B. Highly Visible Headgear</p> <p>During the first year of employment, TE&Y employees must wear orange headgear. Headgear is not required when in:</p> <ul style="list-style-type: none"> • Office areas and lunch rooms. • Enclosed vehicles (including locomotives). • Parking lots when tracks will not be fouled. • Areas specifically designated by the department head.
--	---

Rule Updated Date

January 6, 2015

System Special Instructions

Effective Date: April 1, 2015

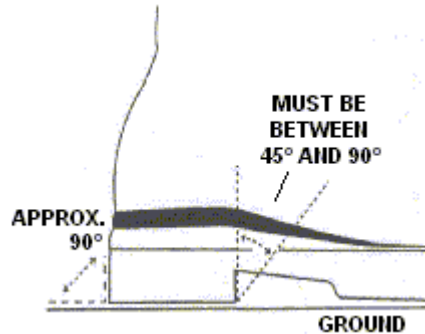
[^Top](#)

71.7: Footwear

<p>71.7</p> <p><i>Ref.SRM Section A and C</i></p> <p><i>OSHA Standard 1910.136 and ANSI Z41.1, Standard Class #75</i></p>	<p>Footwear</p> <p>While on duty or on company property, employees must wear footwear that meet the following requirements:</p> <ul style="list-style-type: none"> • Covers the ankle, either slip on or lace up, and be approximately 6 inches or more in height. • Boots that lace up must be worn by: <ul style="list-style-type: none"> ◦ Transportation department employees.
--	---

○ Intermodal department employees involved in loading and unloading trailers/containers.

- Have soles that provide good traction, thick enough to withstand punctures, not excessively worn, or have loose soles or heels.
- Have a defined heel the back of which is at an approximate right angle from the sole of the shoe and from the ground when standing. The front of the heel must not be at an angle of less than 45 degrees from the sole of the shoe to the ground. Approved snow packs are acceptable.



- Footwear as defined by OSHA Standard 1910.136 and ANSI Z41.1, Standard Class #75 for safety toe footwear must be worn by employees in the following departments:
 - Engineering
 - Locomotive
 - Car
 - Supply
 - Telecommunications
 - Intermodal

Footwear meeting requirements shown above are not required in:

- Offices, lunchrooms and similar areas.
- Automobiles.
- Areas specifically designated by the department head.

or

- Parking areas when tracks will not be fouled.

Rule Updated Date

July 2, 2013

[^Top](#)

71.8: Visitors and Contractors

<p>71.8</p> <p><i>Ref. SRM Section A, B, & C</i></p> <p><i>Ref. Operating Instruction 27</i></p>	<p>Visitors and Contractors</p> <p>Visitors and contractors must wear the same type of PPE as those with whom they are working or as designated by department head. The individual responsible for the visitor must ensure compliance.</p>
---	---

Rule Updated Date

July 2, 2013

[^Top](#)

71.9: Respirators

<p>71.9</p> <p><i>Ref. SRM Section A, E & AC</i></p>	<p>Respirators</p> <p>Employees required to use respiratory protection must:</p> <ol style="list-style-type: none">1. Complete required annual training.2. Have a medical evaluation.3. Be fit tested. <p>Comply with the safety resource manual requirements for training, evaluation, and testing.</p>
---	---

Rule Updated Date

July 2, 2013

[^Top](#)

[Union Pacific Rules](#)

[Safety Rules](#)

72.0: FIRE PREVENTION

Chapter Introduction

Note: See *Safety Resource Manual, Fire Protection Policy and Guidelines, Section IV-AH*.

- [72.0: FIRE PREVENTION](#)
- [72.1: In Case of Fire:](#)
- [72.2: Fire Prevention](#)
- [72.3: Fire Protection Device Inspection](#)
- [72.4: Starting Fires](#)
- [72.5: Open Burning](#)
- [72.6: Ignition Sources](#)
- [72.7: Liquefied Petroleum Gas \(LPG\)](#)
- [72.8: Flammable and Combustible Liquids](#)
- [72.9: Handling Flammable Liquids](#)
- [72.10: Cleaning and Polishing](#)
- [72.11: Fueling Track Cars, Roadway Machines, and Automotive Units](#)
- [72.11.1: Fueling Portable Power Equipment](#)
- [72.12: Unapproved Heating or Lighting Devices](#)
- [72.13: Open Flame Starting](#)

72.0: FIRE PREVENTION

72.0 FIRE PREVENTION

Ref. SRM

Section AH

Rule Updated Date

September 27, 2013

[^Top](#)

72.1: In Case of Fire:

72.1	<p>In Case of Fire:</p> <ul style="list-style-type: none"> • Know how to operate fire protection equipment at your location. • Sound the alarm and summon help. • If it can be done safely, attempt to control and extinguish.
------	--

Rule Updated Date

July 2, 2013

[^Top](#)

72.2: Fire Prevention

72.2	<p>Fire Prevention</p> <p>Fire prevention is accomplished by:</p> <ul style="list-style-type: none"> • Maintaining good housekeeping. • Not allowing the accumulation of combustible materials and debris. • Ensuring that fire doors, windows, stairways, fire escapes, passageways, and roadways are in good condition, not blocked, and free from obstruction. • Maintaining access to firefighting equipment. • Ensuring that catalytic converters, exhaust systems, and exhaust gases do not come in contact with dry grass, weeds, or flammable material. <p>Immediately correct and/or inform a supervisor if you find or are aware of a potential fire hazard.</p>
------	--

Rule Updated Date

July 2, 2013

[^Top](#)

72.3: Fire Protection Device Inspection

<p>72.3</p> <p><i>Ref. SRM Section AH</i></p>	<p>Fire Protection Device Inspection</p> <p>Fire protection devices and suppression systems must be inspected and maintained as required. Tampering with devices is prohibited.</p> <p>A. Fire Extinguishers - Fixed Facilities</p>
---	---

	<p>Annual fire extinguisher maintenance check must be performed by qualified contractor.</p> <p>Monthly fire extinguisher inspections must be performed to determine:</p> <ul style="list-style-type: none"> • There is no evidence of physical damage. • The seal is not broken. • It is fully charged. • It is properly tagged with inspection date noted on tag. • It is properly marked. <p>Vehicles must not be parked or material placed or stored that block fire hydrants.</p> <p>B. Fire Extinguishers - Mobile Equipment</p> <p>Company vehicles (except automobiles), mobile shop equipment, and ride-on-track equipment must carry a properly maintained and inspected fire extinguisher of the correct class to aid in fire suppression.</p> <p>C. Suppression Systems and Alarms</p> <p>Alarms, sprinkler systems, detectors, and suppression systems must also be inspected in accordance with Safety Department Guidelines.</p>
--	--

Rule Updated Date

July 2, 2013

[^Top](#)

72.4: Starting Fires

72.4	<p>Starting Fires</p> <p>Flammable liquid must not be used to start or intensify a fire.</p>
-------------	---

Rule Updated Date

July 2, 2013

[^Top](#)

72.5: Open Burning

72.5	<p>Open Burning</p> <p>Before conducting an open burn of any kind, employee(s) must:</p> <ul style="list-style-type: none"> • Have written approval from the superintendent level or above. • Have necessary environmental and fire permits from state and local authorities. • Comply with all fire permit provisions. • Attend the fire until it is completely extinguished.
------	---

Rule Updated Date

July 2, 2013

[^Top](#)

72.6: Ignition Sources

<p>72.6</p> <p><i>Ref. UPRR Smoking Policy</i></p>	<p>Ignition Sources</p> <p>Do not smoke or use open fire:</p> <ul style="list-style-type: none"> • Within 50 feet of areas where flammable or combustible liquids are being handled or stored. • Near oil storage tanks. • In areas where LPG powered units are being serviced or stored. • When working on or near storage batteries.
--	---

Rule Updated Date

July 2, 2013

[^Top](#)

72.7: Liquefied Petroleum Gas (LPG)

72.7	<p>Liquefied Petroleum Gas (LPG)</p> <p>Units powered by LPG must not be subjected to extreme heat in areas near ovens, furnaces or other sources of high temperature.</p> <p>Tanks containing LPG must be:</p> <ul style="list-style-type: none"> • Stored in an outdoor, ventilated, sheltered area.
------	--

	<ul style="list-style-type: none"> • Properly secured. • Clearly marked "No Smoking or Open Flames." <p>Fueling of LPG tanks must be done outdoors at a location at least 15 feet from storage tanks at the end opposite from the relief valve.</p> <p>Portable tanks must be changed out-of-doors, where possible, and at least 50 feet from an open flame, except on outfit cars with kitchen facilities.</p> <p>When placing LPG tanks on motor vehicles, the engine must be stopped.</p> <p>At the end of a day's operation, valves on tanks of LPG-powered equipment must be turned off to prevent leakage and potential explosion.</p>
--	--

Rule Updated Date

July 2, 2013

[^Top](#)

72.8: Flammable and Combustible Liquids

72.8	<p>Flammable and Combustible Liquids</p> <p>Flammable liquids (including paints) and combustibles must be stored in approved cabinets or designated areas and in approved and properly labeled containers.</p> <p>Store all spray cans in a cool place away from direct sunlight, radiators, stoves and other sources of heat. Do not puncture, incinerate or store above 120 degrees Fahrenheit.</p>
-------------	--

Rule Updated Date

July 2, 2013

[^Top](#)

72.9: Handling Flammable Liquids

72.9	<p>Handling Flammable Liquids</p> <p>Use approved containers and non-sparking tools when handling gasoline and other flammable liquids.</p>
<i>Ref. Rule(s)</i>	

70.25	Label all drums, totes, tanks and containers to show current contents.
-------	--

Rule Updated Date

July 2, 2013

[^Top](#)

72.10: Cleaning and Polishing

72.10	<p>Cleaning and Polishing</p> <p>Do not use gasoline for cleaning or polishing purposes. When using other flammable or combustible liquids for cleaning and polishing use approved:</p> <ul style="list-style-type: none"> • Liquids and compounds in well-ventilated areas. • Storage methods for cloths, waste or other materials used in cleaning operations. • Cleaning tanks with self-closing lids when using solvents.
-------	---

Rule Updated Date

July 2, 2013

[^Top](#)

72.11: Fueling Track Cars, Roadway Machines, and Automotive Units

<p>72.11</p> <p><i>Ref. Environmental Mgt. Group. Laws, Policies, and Procedures Web page: Drum Storage, Reuse and Disposal. (SPCC)</i></p>	<p>Fueling Track Cars, Roadway Machines, and Automotive Units</p> <p>When fueling mobile equipment, other than locomotives, employees must:</p> <ol style="list-style-type: none"> 1. Move equipment out of enclosed area before fueling the vehicle. (This does not apply to equipment in the shop for repair.) 2. Stop the vehicle's engine before refueling. 3. Make sure the hose nozzle on the refueling can is always touching the side of the fill opening of a tank to prevent a hazardous static electric discharge. If employees use a gasoline can, it must be equipped with a standard pouring spout. 4. Avoid spilling fuel. If fuel does spill, it must be cleaned up or allowed to dissipate before starting the engine.
---	--

<i>Ref. Rule(s)</i> 72.6 74.3 <i>Ref. SRM</i> Section AI	
--	--

Rule Updated Date

July 2, 2013

[^Top](#)

72.11.1: Fueling Portable Power Equipment

72.11.1	<p>Fueling Portable Power Equipment</p> <p>When fueling is necessary during use:</p> <ul style="list-style-type: none"> • Shut down engine and allow sufficient time to cool. • Equipment must be removed from the immediate work area. • Equipment must be placed where fuels cannot spill on any hot surfaces or ignition sources. • Move fuel containers at least 20 feet from the work area before starting engine.
---------	--

Rule Updated Date

July 2, 2013

[^Top](#)

72.12: Unapproved Heating or Lighting Devices

72.12	<p>Unapproved Heating or Lighting Devices</p> <p>Obtain authorization before installing or using any unapproved cooking, heating, or lighting devices.</p>
-------	---

Rule Updated Date

July 2, 2013

[^Top](#)

72.13: Open Flame Starting

72.13	Open Flame Starting Do not use an open flame to warm cylinders, manifolds, carburetors, or other internal combustion engine parts before starting the engine.
--------------	---

Rule Updated Date

July 2, 2013

[^Top](#)

[Union Pacific Rules](#)

Safety Rules

73.0: EXPLOSIVES

- [73.0: EXPLOSIVES](#)
- [73.1: Authorized Personnel](#)
- [73.2: Handling Explosives](#)

73.0: EXPLOSIVES

73.0 EXPLOSIVES

Rule Updated Date

July 2, 2013

[^Top](#)

73.1: Authorized Personnel

73.1	Authorized Personnel Only qualified and properly licensed personnel are permitted to use explosives. These persons must comply with the rules and regulations of the Bureau of Alcohol, Tobacco and Firearms (BATF) and the safety standards of the National Fire Protection Agency (NFPA). They must also observe all federal or state laws or city ordinances that cover handling, storing, and using explosives.
-------------	---

Rule Updated Date

July 2, 2013

[^Top](#)

73.2: Handling Explosives

<p>73.2</p> <p><i>Ref. UPRR Smoking Policy</i></p> <p><i>Department of Transportation (DOT) and BATF instructions.</i></p>	<p>Handling Explosives</p> <p>Do not:</p> <ul style="list-style-type: none">• Handle explosives near open flame, lights or fires. Use an electric flashlight or electric lantern if artificial light is necessary.• Smoke around explosives (smoking is prohibited on company property).• Allow anyone to carry matches, lighters or other flame-producing devices except the person lighting the fuse.• Drop packages or cases of explosives or handle them roughly.• Carry caps, electric primers, or other explosives in your pockets. <p>When transporting explosives in railroad cars, trucks, automobiles, or other vehicles, use proper care and follow Department of Transportation (DOT) and BATF instructions. Except in an emergency, do not transport explosives on track cars.</p>
---	--

Rule Updated Date

May 2, 2016

System Special Instructions

Effective Date: May 2, 2016

[^Top](#)

[Union Pacific Rules](#)

[Safety Rules](#)

74.0: VEHICLE OPERATIONS

Chapter Introduction

74.0 VEHICLE OPERATIONS

- [74.0: Vehicle Operations](#)
- [74.1: Vehicle Maintenance](#)
- [74.2: Driver Requirements](#)
- [74.2.1: Qualified Drivers](#)
- [74.3: Cell Phone and Electronic Device Use](#)
- [74.4: Clearing Obstructions](#)
- [74.5: Seat Belts](#)
- [74.6: Back-Up Moves](#)
- [74.6.1: Back-up Moves by Engineering Employees and Contractors in Vehicles](#)
- [74.6.2: Back-Up Move on Rail](#)
- [74.6.3: Back-Up Moves by Off-Track Equipment](#)
- [74.7: Railroad Grade Crossing](#)
- [74.7.1: Yard Crossings](#)
- [74.8: Hazardous Material](#)
- [74.9: Parked Vehicle](#)
- [74.10: Trailers](#)
- [74.11: Working Under Vehicles and Trailers](#)
- [74.12: Off Road Vehicles](#)
- [74.13: Batteries](#)
- [74.13.1: Charging Batteries](#)
- [74.13.2: Jump Starting](#)
- [74.14: Flagging Kits](#)

74.0: Vehicle Operations

74.0 VEHICLE OPERATIONS

Rule Updated Date

July 2, 2013

[^Top](#)

74.1: Vehicle Maintenance

74.1	<p>Vehicle Maintenance</p> <p>The driver and/or supervisor assigned to a vehicle is responsible for:</p> <ul style="list-style-type: none">• Proper maintenance per vehicle information or leasing company specifications.• Recording and maintaining vehicle records inside the vehicle.• Ensuring the vehicle is in good working order and free of defects.• Notifying their supervisor if the vehicle becomes defective.• Ensuring repairs have been completed before the vehicle is returned to service. <p>If in doubt the vehicle is safe to operate, it must be removed from service.</p>
------	---

Rule Updated Date

July 2, 2013

[^Top](#)

74.2: Driver Requirements

74.2	<p>Driver and Passenger Responsibilities</p> <p>A. Drivers are required to:</p> <ul style="list-style-type: none">• Know and observe all local, state, and federal laws and regulations governing vehicle operation.• Use courtesy, consideration, and common sense to prevent accidents and control situations encountered that cannot be provided for in the law.• Obey posted speed limits and the following maximum speed for all Company vehicles regardless of posted speed:<ul style="list-style-type: none">• 75 MPH for vehicles weighing less than 10,000 lbs.• 65 MPH for vehicles weighing 10,000 lbs or greater.• Not exceed a safe and prudent speed for their vehicle when weather, traffic, road conditions, vehicle load or any other prevailing conditions necessitates operating at a lower speed.• Ensure that required emergency equipment and tools are in the vehicle.• Maintain good housekeeping.
------	---

	<ul style="list-style-type: none"> • Ensure loose items are not kept on the dash or rear window shelf. • Ensure tools, equipment, material and freight are properly secured. • Ensure Gross Vehicle Weight Rating (GVWR) of vehicle is not exceeded. • Ensure headlights or running lights are on while vehicle is moving. <p>Drivers must not drive when suffering fatigue, lack of sleep, illness, or any other physical condition which may affect alertness and ability to operate the vehicle safely.</p> <p>Only authorized employees may operate company vehicles. All employees who drive company vehicles are required to:</p> <ul style="list-style-type: none"> • Possess a current, valid driver's license or commercial driver's license (CDL). • Notify their supervisor and discontinue operating vehicles any time license or permit is expired, suspended, revoked or restricted. • Allow only authorized passengers in company vehicles. <p>B. Passengers are required to be seated on approved seats and must not:</p> <ul style="list-style-type: none"> • Project body parts beyond the sides or rear of the vehicle. • Be transported in truck beds. • Get on or off moving vehicles. <p>C. Employees must not tamper with any recording or monitoring device.</p>
--	--

Rule Updated Date

June 30, 2014

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

74.2.1: Qualified Drivers

74.2.1	<p>Qualified Drivers</p> <p>Drivers of company vehicles that meet one or more of the following criteria will be required to become Department of Transportation (DOT) qualified to operate a vehicle:</p> <ul style="list-style-type: none"> • With gross vehicle weight rating (GVWR) of 10,001 lbs or more (single truck or a combination of truck and trailer). • Designed to carry 16 or more persons, including the driver. • Placarded under the hazardous materials regulations because of its hazardous cargo.
---------------	--

When driving a commercial motor vehicle, drivers must have in their possession a valid:

- Commercial Drivers License (CDL), for vehicles with a GVWR greater than 26,000 lbs.
- CDL with a hazardous material endorsement for any vehicle placarded under the hazardous materials regulations because of hazardous cargo.
- Drivers License, for vehicles with a GVWR less than 26,000 lbs.
- Copy of medical certificate card when driving a commercial motor vehicle with a GVWR greater than 10,000 lbs.
- Hours of Service (HOS) Log with current day and previous seven days when driving a commercial motor vehicle with a GVWR greater than 10,000 lbs.
(Exception: Signal Department HOS employees).

Drivers of vehicles with a GVWR greater than 10,000 pounds must be qualified by DOT and familiar with Federal Motor Carriers Safety Regulations.

Federal Motor Carriers Safety Regulations requires UPRR to have on file, a completed driver's qualification file that includes:

- Driver's DOT application for employment.
- Copy of motor vehicle record (MVR) by each state for the past three years.
- Current medical examiner's certificate card.
- Certificate of road test for DOT certified drivers who do not possess a CDL.
- Annual review of MVR.
- Annual Violation and Review Record.

Drivers of vehicles with gross vehicle weight rating (GVW) greater than 10,000 pounds must complete and submit documentation as required by UPRR Department of Transportation and Federal Motor Carrier Safety Regulations (**FMCSA**). These documents include:

- **HOS Log Book** - If a driver drives a CMV once per month he must submit logs for each day during that month.
- **DVIR (Driver Vehicle Inspection Report)** - A daily vehicle inspection report that is required to be completed by those who drive CMVs. Located at the bottom of each log sheet.
- **DOT Roadside Inspection** - Driver must submit a copy of the inspection/citation given to him by law enforcement to UPRR DOT Compliance Department within 24 hours of the inspection. Additionally, if there are violations, a copy must also be sent to the state patrol office that issued the inspection/citation within 15 days of the inspection.

NOTE: Only a driver who is qualified and assigned to drive a commercial motor vehicle (vehicle with a gross vehicle weight greater than 10,000) is allowed to fuel the assigned commercial motor vehicle (CMV). Only in an emergency situation can a manager/supervisor who is not qualified to drive a CMV fuel a CMV.

Rule Updated Date

July 2, 2013

[^Top](#)

74.3: Cell Phone and Electronic Device Use

<p>74.3 <i>Ref. SRM Section AI</i></p>	<p>Cell Phone and Electronic Device Use</p> <p>Use of cell phones while operating a motor vehicle is permitted when:</p> <ul style="list-style-type: none">• A hands free device is used and voice activated dialing or speed dialing is used or• Stopped on other than a roadway. <p>The driver may instruct passengers to turn off electronic devices to eliminate distractions while the vehicle is moving.</p> <p>The use of electronic devices for anything other than voice communication is prohibited while operating a motor vehicle.</p> <p>Do not use a cell phone or electronic device while fueling a vehicle.</p>
---	---

Rule Updated Date

May 2, 2016

System Special Instructions

Effective Date: May 2, 2016

[^Top](#)

74.4: Clearing Obstructions

<p>74.4</p>	<p>Clearing Obstructions</p> <p>The driver must know the vehicle and load will clear all obstructions or close clearances.</p> <p>Do not park the vehicle foul of any railroad track or the traveled portion of a roadway unless proper warning to approaching traffic is provided.</p>
--------------------	--

Rule Updated Date

July 2, 2013

[^Top](#)

74.5: Seat Belts

74.5	<p>Seat Belts</p> <p>All vehicle occupants must use seat belts, where provided. This includes:</p> <ul style="list-style-type: none">• Company vehicles.• Privately-owned vehicles used on company business.• Leased, rented or contract vehicles.• Hi-rail vehicles on and off the rail.• Operating material handling or utility type vehicles, if so equipped (i.e. forklifts, mobile cranes, mules, utility trucks, etc). <p>Seat belts must:</p> <ul style="list-style-type: none">• Be inspected prior to use.• Not be removed from vehicles to avoid use.• Be replaced immediately or the vehicle removed from service if missing or defective. <p>Driver must not move a vehicle until assured all passengers are seated and have their seat belts fastened in proper restraining position.</p> <p>Exception: Seat belt use is not required if vehicle is not exceeding 5 mph and vehicle is used during the task of inspecting cars, coupling air hoses or changing brake shoes.</p>
------	--

Rule Updated Date

July 2, 2013

[^Top](#)

74.6: Back-Up Moves

74.6	<p>Back-Up Moves</p> <p>On Union Pacific property work must be planned to minimize back-up moves and to avoid driving into areas requiring back-up moves. No back-up move is allowed when a forward move can safely be made.</p>
------	---

	<p>Employee(s) in the cab of a vehicle must not speak to or distract the driver until the back-up move is completed, except in case of emergency.</p> <p>Unless vehicle is equipped with an operative rear vision camera, before initiating a back-up move driver must:</p> <ul style="list-style-type: none"> • Walk around the vehicle and confirm that it is safe to move. • Look in the direction of movement. • Sound horn prior to back up move if back up alarm is inoperative or unavailable. • Not exceed 5 MPH; conditions may require a lower speed. <p>When rearward vision is impaired, when equipment is standing on one or more tracks adjacent to the road, or in a Union Pacific parking lot, the following applies unless vehicle is equipped with an operative rear vision camera:</p> <ul style="list-style-type: none"> • When a second person is available: <ul style="list-style-type: none"> • A job briefing must be performed prior to movement, addressing the direction of move and position of person protecting the move. • The second individual, when safe to do so, must be near the rear of the vehicle to direct the movement. • Driver must immediately stop if the person who is directing the movement disappears from the driver's view. • When a second person is not available: <ul style="list-style-type: none"> • The driver must stop every 150 feet. After stopping, the driver must secure the vehicle and walk around the vehicle to confirm that nothing has entered the path of the rearward movement of vehicle. • This will be repeated consecutively every 150 feet or until back-up move is no longer required.
--	--

Rule Updated Date

May 2, 2016

System Special Instructions

Effective Date: May 2, 2016

[^Top](#)

74.6.1: Back-up Moves by Engineering Employees and Contractors in Vehicles

74.6.1	74.6.1: Back-up Moves by Engineering Employees and Contractors in Vehicles
--------	--

Work must be planned to minimize back-up moves and to avoid driving into areas requiring back-up moves. No back-up move is allowed when a forward move can safely be made.

Employee(s) in the cab of a vehicle must not distract the driver with unnecessary conversation or other distractions until the back-up move is completed.

Before initiating a back-up move, the driver must walk to the rear of the vehicle to confirm that it is safe to move unless a second person is directing the move as described in 2(A) below.

In addition, each driver must comply with the following:

1. Sound horn frequently if back up alarm is inoperative or unavailable.
2. When safe to do so, proceed not exceeding 5 MPH and complying with either (A) or (B) below.

(A) When a second person is available to direct the back-up move (i.e any other employees or contractors in the vehicle or present in the immediate vicinity):

- A job briefing must be performed prior to movement, addressing the direction of move and position of person protecting the move.
- The person directing the move (spotter) must be in a position to be seen by the driver and must be able to see the rear of the vehicle and the intended path.
- The spotter must not walk backwards or turn his/her back to the back-up move. Instead, the spotter must bring the vehicle back to a pre-determined point and stop the move. The spotter may then reposition himself before resuming the back-up move.
- Driver must immediately stop if the person who is directing the movement disappears from the driver's view.

(B) When a second person is not available:

- The driver must stop every 150 feet. After stopping, the driver must secure the vehicle against movement, walk to the rear of the vehicle and visually confirm that the way is clear.

There are three exceptions to requirement 2(A or B) above:

- (1) The vehicle is equipped with an operative rear vision camera that provides sufficient visibility.
- (2) Short turn-around move or backing into a parking spot that requires a back-up move of 30 feet or less if there are no other persons on the ground within 150 feet and the vehicle has pulled by the area to ensure a safe move can be made.
- (3) Delivery of materials or equipment to a work site if there are no persons on the ground within 150 feet of the intended path and there is no equipment standing on an adjacent track.

Rule Updated Date

May 2, 2016

System Special Instructions

Effective Date: May 2, 2016

[^Top](#)

74.6.2: Back-Up Move on Rail

<p>74.6.2</p> <p><i>Ref. Rule(s)</i> 42.2.2</p>	<p>Back-Up Moves on Rail</p> <p>Work must be planned to minimize back-up moves and to avoid driving into areas requiring back-up moves. No back-up move is allowed when a forward move can safely be made.</p> <p>When operating a hy-rail in reverse do so for as short a distance as possible, consideration should be given to turning the vehicle in the direction of movement at the nearest road crossing.</p> <p>Do not exceed:</p> <ul style="list-style-type: none">• 20 MPH on tangent track.• 10 MPH in curves. <p>The driver must operate at a speed that will allow stopping in ½ the distance the track is seen to be clear.</p> <p>Back-up alarm should be sounding continuously. If back-up alarm times out, tap the brakes to reactivate the alarm.</p>
--	--

Rule Updated Date

July 2, 2013

[^Top](#)

74.6.3: Back-Up Moves by Off-Track Equipment

Off-track equipment (bulldozer, backhoe, etc.) working on Union Pacific Railroad property must be equipped with an operative back-up alarm.

Rule Updated Date

May 2, 2016

System Special Instructions

Effective Date: May 2, 2016

[^Top](#)

74.7: Railroad Grade Crossing

74.7	<p>Railroad Grade Crossing</p> <p>Drivers must approach railroad crossings prepared to stop.</p> <p>Before crossing track(s) where visibility is impaired by railroad equipment or other obstruction that prevents a clear view of approaching trains, the driver of the vehicle must:</p> <ul style="list-style-type: none">• Stop the vehicle and verify (by either a flagman or personal observation) there will be no movement on the track(s) being crossed.or• Use alternate crossing. <p>Vehicles designed to transport 16 or more passengers including the driver or placarded vehicles must stop at all highway railroad crossings at grade.</p>
------	--

Rule Updated Date

July 2, 2013

[^Top](#)

74.7.1: Yard Crossings

74.7.1	<p>Yard Crossings</p> <p>Drivers must stop before proceeding over any crossing within a yard. This includes crossings where no stop sign is posted. Only one stop is required for multiple crossings.</p>
--------	--

Rule Updated Date

July 2, 2013

[^Top](#)

74.8: Hazardous Material

74.8 <i>Ref.</i> "Shipping Papers for Hazardous Materials" Form 70056 available on web.	Hazardous Materials Do not place gasoline or other hazardous materials, including oxygen and fuel gas, in a bus or passenger compartment occupied by the driver or other persons. This requirement does not apply to transporting railroad flagging kits. Do not transport gasoline or other flammables in an automobile trunk except in an emergency and then only in an approved container secured against movement. A U.S. DOT Hazardous Material Certificate of Registration and MSDS Book must be in the possession of the responsible employee when transporting hazardous material.
--	---

Rule Updated Date

July 2, 2013

[^Top](#)

74.9: Parked Vehicle

74.9	Parked Vehicle To prevent movement when vehicle motor is left running, firmly apply parking brake and place transmission in neutral (manual transmissions) or park (automatic transmissions). When left unattended: <ul style="list-style-type: none">• Place manual transmissions in low gear or automatic transmissions in park.• Set parking brake.• Stop engine and remove ignition key.• Close windows and lock doors.• Take precautions to prevent movement when vehicle or trailer is parked on grade.
-------------	--

Rule Updated Date

July 2, 2013

[^Top](#)

74.10: Trailers

74.10	<p>Trailers</p> <p>Before towing trailers drivers must inspect:</p> <ul style="list-style-type: none">• Compatibility of trailer connections.• Hitches and safety chains.• Equipment or material loaded on the trailer and verify weight limit has not been exceeded.• Tires.• Lights.• Brakes for proper operation (if equipped).• For any unusual condition.
-------	---

Rule Updated Date

July 2, 2013

[^Top](#)

74.11: Working Under Vehicles and Trailers

74.11	<p>Working under Vehicles/Trailers</p> <p>Sitting or lying underneath vehicles or trailers is prohibited unless making inspections or repairs.</p> <p>When making inspections or repairs:</p> <ul style="list-style-type: none">• Set parking brake.• Stop engine and remove ignition key.• Block wheels.• Place proper support stands before positioning yourself under a raised vehicle or trailer.
-------	---

Rule Updated Date

July 2, 2013

[^Top](#)

74.12: Off Road Vehicles

74.12	<p>Off Road Vehicles</p> <p>Only authorized drivers are permitted to operate off road type vehicles. Compliance with other vehicle rules, i.e., speed, inspection, etc. also apply when operating these vehicles. When rules for operation and care are furnished by the manufacturer they must be observed. Reckless or careless driving is prohibited. Operators of vehicles must:</p> <ul style="list-style-type: none"> • Maintain control at all times. • Be prepared to stop within one half their range of vision short of any person or object. • Avoid striking standing or moving equipment or being struck by moving equipment. • Maintain sufficient clearance to tracks and equipment on those tracks. (If tracks must be fouled or proper clearance cannot be maintained, movement must be protected). • Operate only in designated areas. • Cross rail only at designated crossings and road ways. <p>Riders are not permitted on vehicles unless provided with a seat. Riding side saddle on off road type vehicles is prohibited. Vehicles designed for one person must not be occupied by more than one person.</p> <p>Do not make adjustments or disable any speed limiting device.</p>
-------	---

Rule Updated Date

July 2, 2013

[^Top](#)

74.13: Batteries

74.13	<p>Batteries</p> <p>Tools and other metallic objects must be kept away from the top of uncovered batteries.</p> <p>Maintain stored batteries in a fully charged condition.</p>
-------	---

Rule Updated Date

July 2, 2013

[^Top](#)

74.13.1: Charging Batteries

74.13.1	<p>Charging Batteries</p> <p>When charging batteries:</p> <ul style="list-style-type: none"> • Keep vent caps in place and maintained in functioning condition. • If necessary to bring battery liquid to the correct level, use approved water. • Charger must be turned off or unplugged before connecting to or disconnecting from battery. <ul style="list-style-type: none"> ◦ Hook the charger to the positive post first and the negative post last. ◦ When removing the charger, disconnect the negative post first and the positive post last. <p>Precautions must be taken to prevent open flames, sparks, or electric arcs in battery charging areas or around exposed batteries. The area must be adequately ventilated.</p>
---------	---

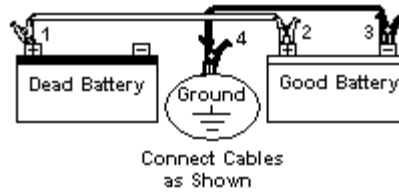
Rule Updated Date

July 2, 2013

[^Top](#)

74.13.2: Jump Starting

74.13.2	<p>Jump Starting</p> <p>To jump a vehicle battery, use the following procedure:</p> <ol style="list-style-type: none"> 1. Turn off all electrical accessories in both vehicles, including Company radio. Start the engine of the booster vehicle to keep its battery from being discharged. 2. Make sure the vehicles are not touching. If possible, boost on-track machines from a non-rail source (off-track vehicle/machine, booster pack or spare battery). If this is not possible, jump start the on-track machine from another on-track machine or vehicle using two sets of jumper cables to keep sparks away from either battery. After connecting one set of jumper cables to each battery, connect the negative ends of the jumper cables together first, followed by the positive ends. After starting machine, disconnect the positive ends first, followed by the negative ends. 3. Shift both vehicles into neutral or park and set the emergency brakes. 4. Check to be sure that both batteries are the same voltage. 5. Check to see that the fluid level is correct. If the fluid is frozen, do not attempt to start the vehicle. 6. Clamp one jumper cable to the positive (+) terminal of the dead battery (position 1 on diagram). Do not allow positive cable clamps to touch any metal other than battery terminal. Connect other end of positive (+) cable to positive (+) terminal of good battery (position 2 on diagram). 7. Connect one end of the second cable [negative (-)] to other [negative (-)] of good battery (position 3 on diagram). Make final connection on engine block of stalled engine (not to negative post) away from battery, carburetor, fuel line, any tubing or moving parts (position 4 on diagram).
---------	---



8. Stand back from both vehicles. Start vehicle with good battery—then start the disabled vehicle.
9. Remove cables in reverse order of connections beginning by first removing cable from engine block or metallic ground.

Rule Updated Date

July 2, 2013

[^Top](#)

74.14: Flagging Kits

Rule has been deleted.

Rule Updated Date

May 2, 2016

System Special Instructions

Effective Date: May 2, 2016

[^Top](#)

[Union Pacific Rules](#)

Safety Rules

75.0: MATERIAL HANDLING

- [75.0: MATERIAL HANDLING](#)
- [75.1: Material Storage](#)
- [75.2: Material Handling](#)
- [75.3: Loading and Unloading Tractor Trailers](#)
- [75.4: Load Binders](#)
- [75.5: Drums and Barrels](#)
- [75.6: Wheel Sets](#)
- [75.7: Forklifts](#)

75.0: MATERIAL HANDLING

75.0 MATERIAL HANDLING

Rule Updated Date

July 2, 2013

[^Top](#)

75.1: Material Storage

75.1	<p>Material Storage</p> <p>When stacking or storing materials and freight:</p> <ul style="list-style-type: none">• It must be placed safely, securely and where it will not create hazardous conditions.• Store heavier, bulkier materials at a height between the shoulders and mid-thigh to minimize lifting effort from bending or reaching too high.• Place in locations where people will not step on, trip over or fall on them.• Keep out of walkways and passageways, doorways, fire lanes and truck spaces.• Keep a safe distance from the edge of pits, ledges and platforms.• Place where it will not block access to fire extinguishers, electrical panels, emergency eye washes, showers or exits.
-------------	---

	<ul style="list-style-type: none"> • Material stored higher than 6 feet from the ground must be palletized and should be retrieved with a forklift whenever possible. • Material stored more than waist height should be stored to avoid falling and retrieved only with an approved reaching/retrieval device. • Do not store heavy materials on top of fragile or crushable materials. • Do not overload storage racks or areas.
--	--

Rule Updated Date

July 2, 2013

[^Top](#)

75.2: Material Handling

<p>75.2</p>	<p>Material Handling</p> <p>Keep material being moved under control and be prepared to stop short of obstructions or persons. Keep feet and hands clear of all pinch points.</p> <p>A. Loading and Unloading Materials</p> <p>Inspect decks or floors of trucks, trailers or railcars. If unsafe, do not move material by occupying deck or using a forklift until condition is corrected or other means employed to handle material.</p> <p>Ensure no one is on the ground where material is being unloaded. Do not work on the ground near others who are unloading material.</p> <p>B. Pallets</p> <p>Only use pallets in good condition. If material will be banded to the pallet, care must be exercised to apply sufficient tension to secure the load, but not to the point of breaking the bands or damaging the pallets.</p> <p>When stacking loaded pallets, consideration must be given to the supporting ability of the material and packaging. Stack only to the height that can be safely supported by the material on the bottom of the stack.</p> <p>Pallets must not be stood or stored on end.</p> <p>C. Transfer Plates and Loading Ramps</p> <p>When working with transfer plates, loading ramps, gang planks or skids:</p> <ul style="list-style-type: none"> • Ensure they are strong enough for the load. • Properly place and secure devices before using.
--------------------	---

	<ul style="list-style-type: none"> • Unless using a forklift, place them between a car and platform and lower by hand or slide into position. • Prevent the plate from slipping or falling and keep hands and feet clear. • Remove nails, cleats or other fastening devices and dispose of properly.
--	---

Rule Updated Date

July 2, 2013

[^Top](#)

75.3: Loading and Unloading Tractor Trailers

<p>75.3</p>	<p>Loading and Unloading Tractor Trailers</p> <p>Do not load or unload a trailer while the tractor is being coupled or uncoupled or when a tractor is coupled and the engine is running, unless necessary to operate attached boom/hoisting equipment.</p> <p>When loading or unloading trailers observe the following:</p> <ul style="list-style-type: none"> • Tractor brakes must be set and wheel chocks placed under the rear wheels to prevent movement while they are boarded with powered industrial trucks. • If present, trailer-to-dock locking devices must be used and checked to see that the lock is securely attached to the trailer before unloading. • If trailer-to-dock locking devices are not present, the rear wheels of the trailer must be chocked on both sides of the trailer by placing approved wheel chocks. Make shift chocks must not be used. • Trailers that have been spotted and the tractor disconnected must have an approved trailer stabilizing jack placed underneath the nose and directly in the center of the trailer. • If the load appears to be exceptionally heavy, has shifted to one side, or in the event there could be a possible defect with the landing gear, place a jack under both front corners of the trailer. • Trailers with tractor attached require the locking device or the rear wheels chocked and brakes set. • Visually inspect the floor of trailers prior to entry with forklift. Any defects detected must be reported to immediate supervisor. Do not exceed the capacity of the floor.
--------------------	--

Rule Updated Date

July 2, 2013

[^Top](#)

75.4: Load Binders

75.4	Load Binders Only use ratchet action load binders and ensure they are in good condition prior to use. All other types of load binders are prohibited. Do not assist others in the operation of lever action load binders.
------	--

Rule Updated Date

July 2, 2013

[^Top](#)

75.5: Drums and Barrels

75.5	Drums and Barrels When handling drums or barrels: <ul style="list-style-type: none">• Test the weight before attempting to handle.• Use approved handling equipment.• Do not use feet to roll.• Do not pull over or up-end without assistance or mechanical equipment.
------	---

Rule Updated Date

July 2, 2013

[^Top](#)

75.6: Wheel Sets

75.6	Wheel Sets Wear cut resistant gloves when handling wheels. Stopping movement by holding the flange or walking in front of rolling mounted wheels is prohibited.
------	---

Rule Updated Date

75.7: Forklifts

75.7	<p>Forklifts</p> <p>Only certified employees may operate a forklift.</p> <p>Inspection</p> <p>Inspect forklift prior to operation. Any unusual condition must be corrected or the forklift must be removed from service.</p> <p>Operation</p> <p>The operator must caution others working in the vicinity and must comply with the following:</p> <ul style="list-style-type: none">• Operate at a speed that will permit stopping short of objects or persons.• Look both ways before crossing tracks and cross diagonally when possible.• Travel backwards down ramps or inclines when handling loads or when necessary for clear vision.• Block wheels and apply parking or hand brakes before loading or unloading highway vehicles or rail cars.• Travel with load as low as practical, against mast. Load must not be lifted while traveling.• Watch for impaired overhead clearance and rear end swing, avoiding sudden stops, jerks, turns and rough terrain.• Keep forklift clear of edge of loading docks, platforms and gangboards.• Do not use forklifts as a platform to raise or lower employees, except where an approved cage, secured to the forks and /or lifting carriage is provided.• Only the operator is allowed to ride a forklift.• Before getting on or off, forklift must be stopped in the clear with hand brake set and forks lowered to the floor or ground. Getting on or off a moving forklift is prohibited. <p>Unattended</p> <p>A forklift is unattended when the operator is more than 25 feet from the machine or the operator is not in view of the machine. Before the forklift is left unattended:</p> <ol style="list-style-type: none">1. Lower forks to ground.2. Shut off engine.3. Apply hand brake. <p>Wagon Tongue Equipment</p>
------	---

	A self-propelled lift truck or similar self-propelled equipment with "wagon tongue" type handle must be operated from a trailing position. Do not ride on any part of equipment of this type.
--	---

Rule Updated Date

July 2, 2013

[^Top](#)

Union Pacific Rules

Safety Rules

76.0: TOOLS AND MACHINERY

- [76.0: TOOLS AND MACHINERY](#)
- [76.1: Use of Tools and Machinery](#)
- [76.2: GENERAL](#)
- [76.2.1: Inspection of Tools and Equipment](#)
- [76.2.2: Safety Guards / Chip Protectors](#)
- [76.2.3: Tool Storage and Placement](#)
- [76.2.4: Set Screws / Chuck Wrenches](#)
- [76.3: Hand Tools](#)
- [76.3.1: Use of Wrench](#)
- [76.3.2: Swinging Tools](#)
- [76.3.3: Sharp Edged Tools](#)
- [76.3.4: Drift Pin](#)
- [76.3.5: Banding Tools](#)
- [76.3.6: Files-](#)
- [76.3.7: Carrying Tools-](#)
- [76.3.8: Bars, Levers and Tools](#)
- [76.3.9: Use of Claw Bars to Remove Spikes](#)
- [76.3.10: Lining Bars](#)
- [76.3.11: Rail Turners](#)
- [76.3.12: Use of Tie or Timber Tongs](#)
- [76.3.13: Track Jack](#)
- [76.3.14: Jacking Equipment](#)
- [76.3.15: Securing Jacked Equipment](#)
- [76.4: PORTABLE POWER TOOLS](#)
- [76.4.1: Securing Hose Connections](#)
- [76.4.2: Powder-Actuated Tools](#)
- [76.4.3: Chain Saw](#)
- [76.4.4: Rail Saws](#)
- [76.5: FIXED MACHINERY / PORTABLE EQUIPMENT](#)
- [76.5.1: Servicing Machines](#)
- [76.5.2: Unattended Machines and Equipment](#)
- [76.5.3: Clamping Material](#)
- [76.5.4: Removing Chips](#)
- [76.5.5: Pedestal or Bench Mounted Abrasive Grinders](#)

- [76.5.6: Anvils / Dies / Trip Hammers](#)

76.0: TOOLS AND MACHINERY

76.0 TOOLS AND MACHINERY

Rule Updated Date

July 2, 2013

[^Top](#)

76.1: Use of Tools and Machinery

76.1	Use of Tools and Machinery Use the correct tool or equipment for the task to be accomplished in accordance with the manufacturer's operating instructions. Improvised, altered or shop made tools or equipment are prohibited unless approved through departmental procedures. The use of pipes or improvised extensions on tools, wrenches or other devices to gain leverage is prohibited. Unauthorized use of tools, equipment and machinery is prohibited.
------	---

Rule Updated Date

July 2, 2013

[^Top](#)

76.2: GENERAL

76.2 GENERAL

Rule Updated Date

July 2, 2013

[^Top](#)

76.2.1: Inspection of Tools and Equipment

<p>76.2.1</p> <p><i>Ref.</i> <i>Rule(s) 1.1.4</i></p>	<p>Inspection of Tools and Equipment</p> <p>Prior to use, tools and equipment must be inspected for conditions that might cause the tool or equipment to fail. Conditions to inspect for include, but are not limited to:</p> <ul style="list-style-type: none">• Broken, bent, frayed, deformed, cracked, loose, improperly wedged, or damaged handles (wooden handles must not be taped).• Cracks, burrs or mushrooming.• Excessive wear or cuts.• Unapproved repairs.• Missing guards or parts.• Exposure to excessive heat (as noted by difference in color, warped, etc.) that could affect the hardness or temper of the equipment or tool.• Damage from welding or cutting (as noted by cut marks, pits, gouges, etc.).• Belts, shafts, gears and other moving parts on machinery are fully enclosed and guarded. <p>Be familiar with the manufacturers and/or the company's inspection/operating procedures and specific safety rules for the tools and equipment to be used.</p>
--	---

Rule Updated Date

July 2, 2013

[^Top](#)

76.2.2: Safety Guards / Chip Protectors

<p>76.2.2</p>	<p>Safety Guards / Chip Protectors</p> <p>Tools, machinery and equipment must not be used without required guards. Chip protectors are required on track chisels, drift pins, or similar struck tools.</p>
----------------------	---

Rule Updated Date

July 2, 2013

76.2.3: Tool Storage and Placement

76.2.3	<p>Tool Storage and Placement</p> <p>A. Tool Storage</p> <p>Keep tools, materials, hoses, extension cords and supplies in assigned places when work has been completed.</p> <p>B. Tool Placement</p> <p>When in use, place tools in safe, secure locations and avoid placing:</p> <ul style="list-style-type: none">• Objects where they are likely to fall or be knocked off.• Tools or other objects on:<ul style="list-style-type: none">• Ladder rungs.• Hand holds.• Running boards.• Steps.• Uncoupling levers.or• Other safety appliances.• Sharp edged tools where they may cause injury:<ul style="list-style-type: none">• On benches.• Under scrap paper or rags.• Among tools in drawers.or• In tool boxes.• Hoses and extension cords where they create a tripping hazard. <p>Power tools must not be:</p> <ul style="list-style-type: none">• Laid down with the motor running.• Placed where they may be started by mistake.• Left unattended with the power source connected.• Left on wet surfaces or in loose soil.
--------	--

Rule Updated Date

July 2, 2013

[^Top](#)

76.2.4: Set Screws / Chuck Wrenches

76.2.4	<p>Set Screws / Chuck Wrenches</p> <p>Set screws or keys in revolving spindles or shafts and chucks must be flush, countersunk or protected by a collar unless fully enclosed and guarded from exposure.</p> <p>Remove chuck wrenches used to tighten chucks on boring mills, lathes, or drills (including portable drills) before operating the machine.</p>
--------	--

Rule Updated Date

July 2, 2013

[^Top](#)

76.3: Hand Tools

76.3 HAND TOOLS

Rule Updated Date

July 2, 2013

[^Top](#)

76.3.1: Use of Wrench

76.3.1	<p>Use of Wrench</p> <p>Take the following precautions when using wrenches:</p> <ol style="list-style-type: none">1. Select the proper wrench for the job. Do not use any object as a shim between the wrench jaws and the nut and bolt head, or use another object to make the wrench fit.2. Brace your body securely to prevent injury in case the wrench slips or the wrench, bolt, nut or other object fails.3. Place the wrench so the turn will be toward the open end of the jaws.
--------	--

4. Pull toward the body whenever possible.

Rule Updated Date

July 2, 2013

[^Top](#)

76.3.2: Swinging Tools

76.3.2	Swinging Tools														
	Stay clear of the swing arc of tools. When using swinging tools, warn others to keep clear. Stand in a position that will direct the tool away from your body in the event the tool strikes a glancing blow. Do not stand on the same side as striker when holding a bar, cutter or punch.														
	A. Hammers must be used only for their intended purpose.														
	<table border="1"><thead><tr><th>Type</th><th>Intended Use</th></tr></thead><tbody><tr><td>Claw</td><td>For use on soft steel, such as nails. Nails or spikes must be well started before a full blow is struck.</td></tr><tr><td>Ball Peen</td><td>For use on hard metal, such as a chisel.</td></tr><tr><td>Locomotive</td><td>For emergency use by operating employees.</td></tr><tr><td>Sledge</td><td>For use on hardened steel.</td></tr><tr><td>Rubber Mallet</td><td>For use on hard metals.</td></tr><tr><td>Soft Metal Hammers (i.e. Brass, Aluminum)</td><td>Cutters or other hardened steel tools have special applications to prevent damage, (i.e. striking reamers, taps, drills, copper, etc.).</td></tr></tbody></table>	Type	Intended Use	Claw	For use on soft steel, such as nails. Nails or spikes must be well started before a full blow is struck.	Ball Peen	For use on hard metal, such as a chisel.	Locomotive	For emergency use by operating employees.	Sledge	For use on hardened steel.	Rubber Mallet	For use on hard metals.	Soft Metal Hammers (i.e. Brass, Aluminum)	Cutters or other hardened steel tools have special applications to prevent damage, (i.e. striking reamers, taps, drills, copper, etc.).
	Type	Intended Use													
	Claw	For use on soft steel, such as nails. Nails or spikes must be well started before a full blow is struck.													
	Ball Peen	For use on hard metal, such as a chisel.													
	Locomotive	For emergency use by operating employees.													
	Sledge	For use on hardened steel.													
	Rubber Mallet	For use on hard metals.													
Soft Metal Hammers (i.e. Brass, Aluminum)	Cutters or other hardened steel tools have special applications to prevent damage, (i.e. striking reamers, taps, drills, copper, etc.).														
B. Spike Maul															
When using a spike maul, use the following procedure:															
<ol style="list-style-type: none">1. Inspect the tie plate area and brush away any loose material that might fly on impact.2. When possible, set the spike from the same side of the rail you are standing on, holding the spike palm side up.3. Strike light blows until the spike is firmly set.4. Establish good footing, take a firm grip on the handle, keep your eyes on the spike head and spike by swinging the maul in a smooth arc at an even rhythm.															
Spike mauls must only be used for setting and driving railroad spikes.															

	<p>When two employees are spiking along the same rail, each must spike on their side of the rail, and both must face the same direction. One employee spiking alone may spike over the rail.</p> <p>C. Hand Adze</p> <p>Remove nails, dirt, stones and other debris from the item to be adzed. Straddle the item, when possible, and work the adze between the legs, keeping good control to prevent glancing blows. Cut with the grain, notching and chipping out pieces if a considerable amount is to be removed. Keep the cutting edge sharp and free of chips and use special caution when cutting cross-grained lumber, knots, etc.</p>
--	---

Rule Updated Date

July 2, 2013

[^Top](#)

76.3.3: Sharp Edged Tools

76.3.3	Sharp Edged Tools	
	Use the proper tool for the job.	
	Tool	Intended use and/or special instruction
	Wire Stripper	Used to cut wire. Hold the short end of the wire to reduce the danger of flying bits. Always cut at right angle. Cutters are dulled by rocking from side to side or bending the wire back and forth against the cutting blade.
	Compound leverage	Used to cut chain, bolts or heavy gauge cutter or bolt cutters wire.
	PVC / Hose Cutter	Use for cutting pvc pipe or any hoses especially oxy-acetylene hoses.
	Banding cutters	Used to cut bands.
	Utility Knives	Safer than hooked or pocket knives for opening cartons. They not only protect the user, but also eliminate deep cuts that could damage the carton contents.
	Chisel	Mushroomed or damaged chisels must be redressed or destroyed
Note: Use of personal knives is prohibited while on duty or on company property.		

	<p>Use chemical gasket remover where possible to soften the old gasket and then use a scraper or putty knife to remove the gasket. A gasket grinder may also be used to remove old gaskets. Use a retractable blade utility knife to cut new gaskets. Use clamps to hold down both the template and the gasket material.</p> <p>When using sharp edged tools, the cutting edges must be directed away from the body or hands. If that is not possible, then the free hand and body should be in a position that place them clear of the blade stroke, and protective clothing should be worn. When wiping the blade, use a towel or cloth (not your own clothing) with the sharp edge turned away from the wiping hand.</p>
--	---

Rule Updated Date

July 2, 2013

[^Top](#)

76.3.4: Drift Pin

76.3.4	<p>Drift Pin</p> <p>Use a drift pin when necessary to align holes for the insertion of rivets, bolts or pins. Fingers must not be used to align holes. Use a hammer to strike the pin. Hit the pin with light blows until it is securely seated in the hole. Be alert when driving a drift pin or bolt to make sure no one is positioned in line with it should it fly out.</p>
---------------	--

Rule Updated Date

July 2, 2013

[^Top](#)

76.3.5: Banding Tools

76.3.5	<p>Banding Tools</p> <p>Use caution when handling banding materials and tools.</p> <p>When applying or cutting banding:</p>
---------------	--

	<ul style="list-style-type: none">• Have a firm grip on the bander.• Do not apply undue tension to the bands.• Do not stand in direct line of bands under tension.• Band cutters must be used to cut banding.• Position yourself so that you will not be struck should material fall from the stack. <p>Bands must be cut back, secured or removed to prevent cutting or tripping hazards. Scrap banding must be placed in suitable containers for disposal or moved to a safe area.</p>
--	--

Rule Updated Date

July 2, 2013

[^Top](#)

76.3.6: Files-

76.3.6	Files <p>Files must only be cleaned by using a wire brush. They must not be used as a pry, punch, chisel or any other type of tool. Files must have wooden or plastic handles attached.</p>
---------------	---

Rule Updated Date

July 2, 2013

[^Top](#)

76.3.7: Carrying Tools-

76.3.7	Carrying Tools <p>Long handled tools must not be carried in such a manner that will present a hazard to yourself or others. Carrying pointed tools is prohibited unless point is protected.</p>
---------------	---

Rule Updated Date

July 2, 2013

[^Top](#)

76.3.8: Bars, Levers and Tools

76.3.8	<p>Bars, Levers and Tools</p> <p>When using bars, levers or tools:</p> <ul style="list-style-type: none">• Brace yourself.• Be alert to the bar or lever slipping or moving unexpectedly.• Place hands and feet to prevent injury. <p>Do not:</p> <ul style="list-style-type: none">• Over exert.• Sit, stand on or straddle a bar or lever.• Use bars or levers that are broken, bent, chipped or have been welded on.
--------	--

Rule Updated Date

July 2, 2013

[^Top](#)

76.3.9: Use of Claw Bars to Remove Spikes

76.3.9	<p>Use of Claw Bars to Remove Spikes</p> <p>When using claw bars:</p> <ol style="list-style-type: none">1. Place the claw securely under the spike head. If you are unable to get the claw under the spike head, use the pointed end of the bar and pry up the edge of the tie plate enough to permit the claw to seat completely under the spike head, or use a spike lifter.2. With firm footing, stand beside the claw bar and position your hands below the notch in the handle to prevent striking hand on opposite rail, should the spike break or release suddenly.3. Work the spike up with short, firm thrusts. If additional leverage is needed, use a piece of wood under the heel of the claw bar. <p>When using the claw bar to nip tie plates, be sure the end is well underneath so it will not slip. Do not strike the handle of a claw bar with another tool.</p>
--------	---

Rule Updated Date

July 2, 2013

[^Top](#)

76.3.10: Lining Bars

76.3.10	Lining Bars When nipping ties or lining track, make sure the bar is placed in the ballast sufficiently to prevent it from slipping out when force is applied. Apply force smoothly and assume a firm stance to maintain balance should the bar slip. If necessary, use a piece of wood as a fulcrum to multiply your force on the tie. Do not use a lining bar to turn a rail.
----------------	--

Rule Updated Date

July 2, 2013

[^Top](#)

76.3.11: Rail Turners

76.3.11	Rail Turners The ratchet rail turner or rail forks are the only hand tools that may be used to turn rail.
----------------	---

Rule Updated Date

July 2, 2013

[^Top](#)

76.3.12: Use of Tie or Timber Tongs

76.3.12	Use of Tie or Timber Tongs
----------------	-----------------------------------

	Tongs must be set firmly with a steady force applied. When pulling, stand braced with your feet apart and with one foot behind the other. Use tie tongs when handling individual ties.
--	--

Rule Updated Date

July 2, 2013

[^Top](#)

76.3.13: Track Jack

76.3.13	<p>Track Jack</p> <p>Track jack must be inspected before using for:</p> <ul style="list-style-type: none">• Cracked base.• Broken pawl lever.• Missing ratchet or operating lever pins.• Any debris in the ratchet mechanism. <p>Do not strike the jack with tools to force it under a load. The jack base must be placed on an even and firm surface to prevent shifting or kicking out. The lifting surface must be placed fully under the load. No more than two people may operate the jacking lever.</p> <p>Only use lining bar to operate a mechanical track jack. When using lining bar:</p> <ul style="list-style-type: none">• Stand beside the bar and assume a stable position.• Pump lining bar in an even rhythm.• Do not straddle, sit or stand on the lining bar.• Keep body clear of pinch points.• Remove the lining bar when the jack is not being operated. <p>Before tripping or lowering the jack under load, make certain all employees, tools and materials are in the clear. Jack must not be set for tripping until ready to release the load. Do not walk track jack down.</p> <p>Mechanical track jack must not be used by the Locomotive and Car Departments.</p>
----------------	---

Rule Updated Date

July 2, 2013

[^Top](#)

76.3.14: Jacking Equipment

<p>76.3.14</p>	<p>Jacking Equipment</p> <p>Only approved jacks will be used to lift cars or locomotives. When necessary to jack a locomotive, car or other heavy equipment in order to remove trucks, wheels, couplers, etc., jacks must be:</p> <ul style="list-style-type: none"> • Of sufficient capacity to handle the lift. • Positioned on pads or footing sufficient to handle the lift. If blocking is used, it must be capable of handling the lift. • Level and jack head must contact the jacking point as completely as possible. • Positioned under the load at a location where there is sufficient strength to support the equipment. This includes secondary support. <p>A five minute settling period must be observed when jacking on unpaved or uneven surfaces.</p> <p>Do not jack metal against metal, except when using track jacks or vehicle jacks. When mechanical, hydraulic or air jacks are used, a piece of wood or approved pad (minimum of one-half inch and a maximum of one inch thick large enough to cover the jack head), must be inserted between the jack head and the load.</p> <p>Do not place any part of your body under the load or in line of fire, unless equipment or load is properly secured.</p>
-----------------------	---

Rule Updated Date

July 2, 2013

[^Top](#)

76.3.15: Securing Jacked Equipment

<p>76.3.15</p>	<p>Securing Jacked Equipment</p> <p>Follow these precautions when jacking equipment:</p> <ol style="list-style-type: none"> 1. Wheels must be chocked to prevent equipment movement, except where one-spot in-floor jacks are being used. 2. Do not go under or place any part of your body under equipment unless it is secured from movement and has proper secondary support in place. Secondary support shall consist of: <ul style="list-style-type: none"> • Stands or blocking of sufficient capacity to support the load. • In rip track or shop applications, using in-floor jacks with positive stop features will be considered the same as using secondary support; otherwise, stands or blocking must be used.
-----------------------	---

	<p>3. To be effective, load must be lowered until a portion of it rests on the secondary support.</p> <p>4. Always consider other options and methods to preclude having to place any part of your body under a jacked load or in line of applied force. When trucks are under car, use the proper tool to remove or position the center pin.</p> <p>Note: Portable jacks with locking rings (i.e. electric powered hydraulic jack) will not be used as secondary support or a jack stand.</p>
--	---

Rule Updated Date

July 2, 2013

[^Top](#)

76.4: PORTABLE POWER TOOLS

<p>76.4 PORTABLE POWER TOOLS</p>

Rule Updated Date

July 2, 2013

[^Top](#)

76.4.1: Securing Hose Connections

<p>76.4.1</p>	<p>Securing Hose Connections</p> <p>Air connections must be secured and must:</p> <ul style="list-style-type: none"> • Be equipped with whip checks or check valves on both ends. • Not be uncoupled without first closing the air valve and relieving line pressure, unless equipped with quick disconnect. • Not have wire in air or hydraulic couplings used in place of clip pins.
----------------------	--

Rule Updated Date

July 2, 2013

[^Top](#)

76.4.2: Powder-Actuated Tools

76.4.2	<p>Powder-Actuated Tools</p> <p>Only authorized employees are permitted to use powder-actuated tools (i.e., Hilti guns, nail guns, etc.) and must follow manufacturer's instructions.</p> <p>Assume all powder-actuated tools are loaded. Treat tools and powder cartridges with extreme caution. Powder-actuated tools must be unloaded when not in use.</p>
--------	--

Rule Updated Date

July 2, 2013

[^Top](#)

76.4.3: Chain Saw

<p>76.4.3</p> <p><i>Ref. Rule(s)</i> 72.2</p>	<p>Chain Saw</p> <p>Follow the manufacturer's instructions when operating chain saws. Operators must wear:</p> <ul style="list-style-type: none">• Dust goggles or face shield with safety glasses.• Gloves.• Long-sleeved shirt.• Chain saw chaps.• Hearing protection. <p>Only qualified and properly trained personnel are permitted to use chain saws.</p> <p>Standing Trees</p> <p>Employees must not fell standing trees greater than 6 inches in diameter at mid chest height. If the tree is leaning, extreme care should be used when cutting and consideration should be given to having the tree cut by an outside service provider. Standing trees greater than 6 inches in diameter that need to be felled must be removed by an outside service provider.</p> <p>Fallen Trees</p> <p>Employees must do a thorough risk assessment of the scene where a tree is fouling any UPRR tracks or structures before using a chainsaw. This assessment must include evaluation of the position and orientation of the trunk and limbs of the fallen tree to identify any stress in the tree components due to the position and orientation (i.e. twisting or leaning against another tree or object).</p>
---	---

	<p>All chain saws should have a chain brake. Those saws not equipped with a chain brake must have a tip protector.</p> <p>Be alert for conditions which may adversely affect footing and safe operation of the saw. Avoid cutting directly overhead. Where there is a fire hazard, a fire extinguisher and shovel must be immediately available when using a chain saw.</p>
--	---

Rule Updated Date

July 2, 2013

[^Top](#)

76.4.4: Rail Saws

<p>76.4.4</p>	<p>Rail Saws</p> <p>A rail saw can be powered by gasoline, hydraulics or electricity. Rail saws are only to be used to cut rail.</p> <p>Do not operate a rail saw unless you have been properly trained in its safe use and follow all of the manufactures instructions.</p> <p>When operating a rail saw:</p> <ul style="list-style-type: none"> • Warn others you are about to begin cutting rail. • Personnel are prohibited from standing in front of the rail saw when rail is being cut. • Required PPE must be used. • The guide support arm must be used when cutting rail (freehand cutting is prohibited). • Inspect equipment regularly to ensure it is operating safely and efficiently. <p>Do not fuel a gasoline powered rail saw closer than 20 feet from where the rail is to be cut.</p>
----------------------	---

Rule Updated Date

July 2, 2013

[^Top](#)

76.5: FIXED MACHINERY / PORTABLE EQUIPMENT

<p>76.5 FIXED MACHINERY / PORTABLE EQUIPMENT</p>

Rule Updated Date

July 2, 2013

[^Top](#)

76.5.1: Servicing Machines

76.5.1 <i>Ref. SRM Section H</i>	Servicing Machines Follow manufacturer's recommendations for servicing machinery. Ensure all safety guards and/or safety devices are replaced and operable before machine is returned to service. Follow Environmental Guidelines to dispose of waste products.
--	---

Rule Updated Date

July 2, 2013

[^Top](#)

76.5.2: Unattended Machines and Equipment

76.5.2	Unattended Machines and Equipment Do not leave running machines or equipment unattended.
---------------	--

Rule Updated Date

July 2, 2013

[^Top](#)

76.5.3: Clamping Material

76.5.3	Clamping Material When possible, material must be firmly clamped to the machine before work is performed.
---------------	---

Rule Updated Date

July 2, 2013

[^Top](#)

76.5.4: Removing Chips

76.5.4	Removing Chips Use a brush, vacuum equipment or tools made to remove chips or shavings. Do not remove chips or shavings from a drill press, lathe, wheel true or other machine by hand.
---------------	--

Rule Updated Date

July 2, 2013

[^Top](#)

76.5.5: Pedestal or Bench Mounted Abrasive Grinders

76.5.5 <i>Ref. SRM Section A</i>	Pedestal or Bench Mounted Abrasive Grinders A. Mounting Prior to mounting abrasive wheels: <ul style="list-style-type: none">• Inspect for damage and cracks. Wheels that show any evidence of cracks or other defects must not be mounted.• Spindle speed of grinder must be checked to ensure that it does not exceed the maximum operating speed marked on the wheel. Blotters must be used between flanges and abrasive wheel surface to insure uniform distribution of flange pressure. Blotters must cover the entire contact area at the wheel flanges. Flanges must be the same size and not less than one-third the wheel diameter. B. Ring Test The Ring Test depends on the damping characteristics of a wheel to alter the sound emitted when the wheel is tapped lightly. When performing a Ring Test: <ul style="list-style-type: none">• Ensure wheels are dry and free from sawdust before performing the Ring Test.
--	---

	<ul style="list-style-type: none"> • Support the wheel through the center hole with a non-sound conducting holder such as a wooden dowel. • Using a light non-metallic tool, such as the handle of a screwdriver, tap wheel gently about 45 degrees each side of the vertical center line and about one or two inches from the outside edge. • Rotate the wheel 45 degrees and repeat. <p>A sound and undamaged wheel will give a clear tone. If a clear tone is not heard the wheel must not be used.</p> <p>C. Using Grinders</p> <ul style="list-style-type: none"> • Prior to doing any work with the grinder, it must be run for one minute to check for excessive vibration with operator standing to the side. If there is excessive vibration, the machine must be shut down and supervisor notified. • Only grind material for which the wheel is designed. <p>When using grinder:</p> <ul style="list-style-type: none"> • Apply force gradually and uniformly when the wheel is cold to prevent thermal shock. • Immediately report and replace broken or missing shields. • If needed, protect arms with a long sleeved shirt. <p>Do not:</p> <ul style="list-style-type: none"> • Wear gloves while grinding. • Grind on sides of abrasive wheels. • Allow the tool rest to be more than one-eighth inch from the stone. • Allow the distance between the wheel edge and the adjustable tongue to be more than one-fourth inch. • Use rags to hold material while grinding. • Grind non-ferrous material (i.e., aluminum, brass or plastic) on wheels designed for grinding steel.
--	---

Rule Updated Date

July 2, 2013

[^Top](#)

76.5.6: Anvils / Dies / Trip Hammers

76.5.6	<p>Anvils / Dies / Trip Hammers</p> <p>Do not use your hands to place blocks, tools or other material on anvils, dies or trip hammers.</p>
---------------	---

Rule Updated Date

July 2, 2013

[^Top](#)

Union Pacific Rules

Safety Rules

77.0: MECHANICAL LIFTING/PULLING OPERATIONS

- [77.0: MECHANICAL LIFTING/PULLING OPERATIONS](#)
- [77.1: Qualified Employees](#)
- [77.2: Inspection](#)
- [77.3: Safe Load and Load Control](#)
- [77.4: Positioning](#)
- [77.5: Groundman](#)
- [77.6: Crane Operator](#)
- [77.7: Signals](#)
- [77.8: Crane Audio Signals](#)
- [77.9: Raising Personnel](#)
- [77.10: Operation with Trains Passing](#)
- [77.11: Pulling Operations](#)
- [77.12: MOBILE CRANES](#)
- [77.12.1: Safe Load Placard](#)
- [77.12.2: Boom Inspection](#)
- [77.12.3: Handling Equipment in Work Train](#)
- [77.13: OVERHEAD CRANES / HOISTS](#)
- [77.13.1: Test Crane / Hoist](#)
- [77.13.2: Load Movement](#)
- [77.14: WIRE ROPE](#)
- [77.14.1: Wire Rope Inspection / Repair / Replacement](#)
- [77.14.2: Wire Rope Handling](#)
- [77.14.3: Wire Rope Maintenance](#)
- [77.14.4: Drum Fastening](#)
- [77.14.5: Sockets, Clamps, and Thimbles](#)
- [77.15: RIGGING](#)
- [77.15.1: Rigging](#)
- [77.16: FITTINGS](#)
- [77.16.1: Fitting Inspection and Replacement](#)
- [77.16.2: Hooks and Attachments](#)
- [77.17: SLINGS](#)
- [77.17.1: Slings Inspections / Replacement](#)
- [77.17.2: Chain Working Loads](#)
- [77.17.3: Chain Lifting Devices](#)

- [77.17.4: Chain Sling Use](#)
- [77.17.5: Chain Lubrication](#)
- [77.17.6: Eye Bolts and Hoist Rings](#)
- [77.17.7: Ropes](#)

77.0: MECHANICAL LIFTING/PULLING OPERATIONS

Rule Updated Date

July 2, 2013

[^Top](#)

77.1: Qualified Employees

77.1	<p>Qualified Employees</p> <p>Only qualified employees are permitted to operate cranes, hoists, and mechanical lifting/pulling devices. Employees must be trained in rules and procedures regarding the equipment's operation before qualification is granted.</p> <p>Observe instructions for operation and care provided by the manufacturer.</p>
-------------	--

Rule Updated Date

July 2, 2013

[^Top](#)

77.2: Inspection

77.2	<p>Inspection</p> <p>All hoisting equipment and rigging must be inspected daily before use and periodically as required. If defects are found, they must be corrected or equipment must be removed from service.</p> <p>Maintain a record of inspections on equipment and have records available upon request.</p>
-------------	---

Rule Updated Date

July 2, 2013

[^Top](#)

77.3: Safe Load and Load Control

<p>77.3</p> <p><i>Ref. SRM</i> <i>Section AB & AF</i></p>	<p>Safe Load and Load Control</p> <p>A load that is suspended or being lifted should be pushed instead of pulled. Hands must not contact wire rope or sheaves on hoisting equipment with load attached unless absolutely necessary, and then only after notifying operator.</p> <p>Use non-conductive push stick or tag lines to prevent uncontrolled movement.</p> <p>When hoisting loads, do not:</p> <ul style="list-style-type: none">• Overload hoisting and rigging equipment.• Side-load or drag a load with hoisting equipment.• Drop or jerk the load or tackle. <p>Raise and lower the load gradually and remove buckets or magnets from crane when handling loads with slings.</p> <p>Precautions must be taken to ensure against load swaying or turning. Crane, hoist, or wrecker must not be moved if load is swaying or turning excessively.</p>
--	--

Rule Updated Date

July 2, 2013

[^Top](#)

77.4: Positioning

<p>77.4</p>	<p>Positioning</p> <p>When working with cranes or other hoisting devices, those in the immediate area must:</p> <ul style="list-style-type: none">• Notify groundman or operator before entering the area.• Position themselves where they cannot be struck / crushed by the load, crane or other object.• Stay clear of loads being suspended.• Not be under the crane boom or similar machine when it is lifting or suspending a load.• Not stand near or in the line of fire of a cable, rope or chain under tension in case of breakage, or one that might be tightened at any moment.
--------------------	---

	<ul style="list-style-type: none"> • Not walk or stand in the path of a load being handled by a crane, hoist or wrecker. <p>Loads must not be suspended from booms unless the work requires. In such cases, keep the load secured and as close to the ground as possible.</p> <p>Do not use the crane or other hoisting device to transport suspended loads from one point to another. Use a flat car or other conveyance to release the weight from the boom during transit.</p> <p>Avoiding Falls</p> <p>Maintain secure footing and a firm hand hold to avoid falling when standing on load to adjust cable, chain, sling or hook.</p>
--	---

Rule Updated Date

July 2, 2013

[^Top](#)

77.5: Groundman

<p>77.5</p> <p><i>Ref. SRM Section AB & AF Rule 78.7</i></p>	<p>Groundman</p> <p>The groundman is responsible for directing and safe-guarding all machine movements.</p> <p>Before signaling boom or machine movement, the groundman must ensure the load, cab or boom will not come in contact with nearby wires, structures or other objects and persons.</p> <p>A groundman required to move cars or on-track equipment must be qualified on the use of their braking systems.</p>
---	---

Rule Updated Date

July 2, 2013

[^Top](#)

77.6: Crane Operator

<p>77.6</p> <p><i>Ref. SRM Section AA</i></p>	<p>Crane Operator</p> <p>The crane operator is responsible for the safe operation of the crane and for the safety of employees working in the immediate area. The operator will only take signals given by the groundman, unless the signal is a stop signal.</p>
--	--

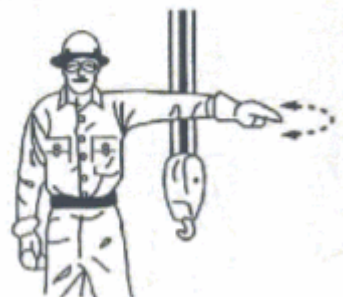

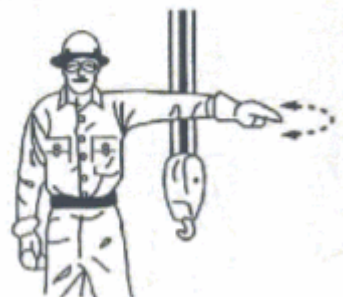

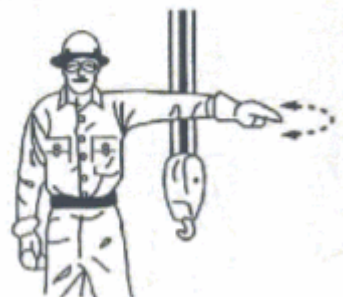

Equipment controls must not be left during a lift or when a load is suspended; or with the master clutch engaged.

Rule Updated Date

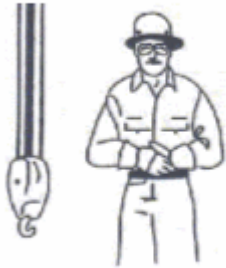
July 2, 2013

[^Top](#)

77.7: Signals

<p>77.7</p>	<p>Signals</p> <p>Hand signals must be used when possible. If crane hand signals cannot be used, crane audio signals may be used. The crane operator and groundman must agree beforehand on the signals to be used and must use only these approved signals.</p> <p>The person giving signals must:</p> <ul style="list-style-type: none">• Make sure signals can be plainly seen.• Give signals clearly so they can be understood. <p>If the person giving signals disappears from the view of the crane operator, movement must be stopped.</p> <p>Emergency Stop Signals</p> <p>Anyone can give emergency stop signals. The crane operator must immediately recognize and act upon any stop signal or any other motions or movements that might indicate such action is necessary.</p>		
	<p>Use the following standard hand signals while operating cranes and hoists:</p> <table border="0"><tr><td style="text-align: center;"><p>STOP</p><p>Stop: Arm extend, palm down, move arm back and forth horizontally.</p></td><td style="text-align: center;"><p>EMERGENCY STOP</p><p>Emergency Stop: Both arms extend, palm down, move arms back and forth horizontally.</p></td></tr></table> <p>#####</p>	<p>STOP</p>  <p>Stop: Arm extend, palm down, move arm back and forth horizontally.</p>	<p>EMERGENCY STOP</p>  <p>Emergency Stop: Both arms extend, palm down, move arms back and forth horizontally.</p>
<p>STOP</p>  <p>Stop: Arm extend, palm down, move arm back and forth horizontally.</p>	<p>EMERGENCY STOP</p>  <p>Emergency Stop: Both arms extend, palm down, move arms back and forth horizontally.</p>		

DOG EVERYTHING



Dog Everything: Clasp hands in front of body.

#####

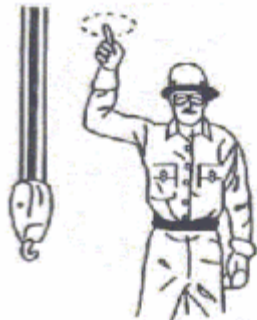
MOVE SLOWLY



Move Slowly: Use one hand to give motion signal and place other hand motionless in front of hand giving the motion signal.

#####

HOIST



Hoist: With forearm vertical, forefinger pointing up, move hand in small horizontal circle.

#####

LOWER



Lower: With arm extended downward, forefinger pointing down, move hand in a small horizontal circle.

#####

USE MAIN HOIST



Use Main Hoist: Tap fist on head, then use regular signals.

#####

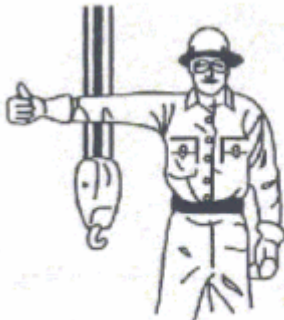
USE WHIP LINE



Use Whip line: (auxiliary Hoist) tap elbow with one hand, then use regular signals.

#####

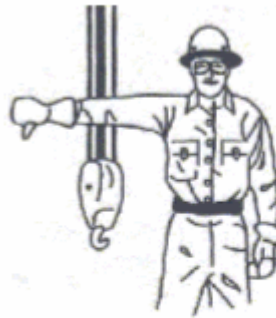
RAISE BOOM



Raise Boom: Arm extended, fingers closed, thumb pointing upward.

#####

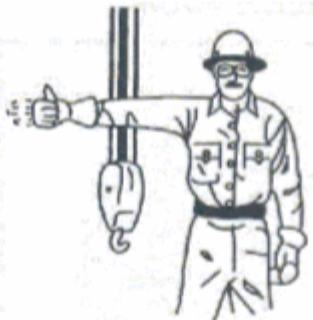
LOWER BOOM



Lower Boom: Arm extended, fingers closed, thumb pointing downward.

#####

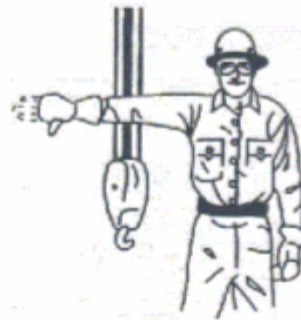
RAISE THE BOOM AND LOWER THE LOAD



Raise Boom and Lower the Load: With arm extended, thumb pointing up, flex fingers in and out as long as load movement is desired.

#####

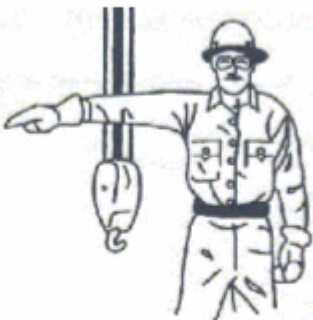
LOWER THE BOOM AND RAISE THE LOAD



Lower Boom and Raise the Load: With arm extended, thumb pointing down, flex fingers in and out as long as load movement is desired.

#####

SWING



Swing: Arm extended, point with finger in direction of swing of boom.

#####

RETRACT BOOM
(Telescoping Boom)



Retract Boom: (telescoping booms) One hand signal, fist in front of chest, thumb extended out, heel of fist tapping chest.

#####

RETRACT BOOM
(Telescoping Multiple Booms)



Retract Boom:
(telescoping booms)
Both fists in front of
body with thumbs
pointing toward each
other.

#####

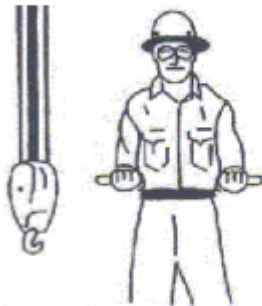
EXTEND BOOM
(Telescoping Boom)



Extend Boom:
(telescoping boom)
One hand signal, fist
in front of chest,
thumb extended
and tapping chest.

#####

EXTEND BOOM
(Telescoping Multiple Booms)



Extend Boom: (telescoping
booms) Both fists in front of
body with thumbs pointing
outward.


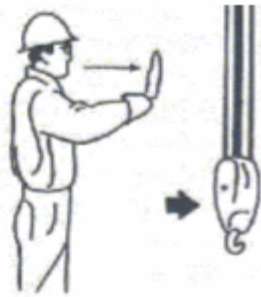
#####

TRAVEL
(One track. For crawler cranes only.)



Travel: (one track crawler
cranes) Lock the track on the
side indicated by the raised fist,
and travel opposite track in
direction indicated by circular
motion of other fist rotated
vertically in front of body.

#####

	<p style="text-align: center;">TRAVEL (Both tracks. For crawler cranes only.)</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Travel: (both tracks crawler cranes) Use both fists in front of body, making a circular motion about each other, indicating direction of travel, forward or backward.</p> <p>#####</p> </div> <div style="text-align: center;"> <p>TRAVEL</p>  <p>Travel: Arm extended forward, hand open and slightly raised, make pushing motion in direction of travel.</p> <p>#####</p> </div> </div>
--	--

Rule Updated Date

July 2, 2013

[^Top](#)

77.8: Crane Audio Signals

<p>77.8</p>	<p>Crane Audio Signals</p> <p>If voice communication is utilized, the voice commands by the groundman to the crane operator shall be in a continuous manner. Use a pause between a common command of approximately one second in duration per ten feet until the load is in the desired position. If the proper communication stops, or is not understood, all crane movements shall stop immediately.</p> <p>Voice Commands shall be as follows:</p> <ul style="list-style-type: none"> • UP ON THE LOAD • DOWN ON THE LOAD • BOOM UP • BOOM DOWN • BOOM UP AND LOWER THE LOAD • BOOM DOWN AND RAISE THE LOAD
--------------------	---

	<ul style="list-style-type: none"> • SWING LEFT • SWING RIGHT • EXTEND OUT • RETRACT IN • STOP <p>If special voice commands are required to perform the lift, they shall be mutually agreed upon between the groundman and the crane operator before lifting begins.</p>
--	---

Rule Updated Date

July 2, 2013

[^Top](#)

77.9: Raising Personnel

77.9	<p>Raising Personnel</p> <p>Only raise and lower persons in an approved aerial basket designed for that purpose. Do not use cranes, derricks or hoists to raise or lower persons. Do not ride on loads or rigging.</p>
-------------	---

Rule Updated Date

July 2, 2013

[^Top](#)

77.10: Operation with Trains Passing

<p>77.10</p> <p><i>Ref. Rule(s)</i></p> <p>43.10</p> <p>121.0</p> <p>81.1.1</p>	<p>Operation with Trains Passing</p> <p>When trains are passing on adjacent tracks, if any part of equipment or load can foul adjacent tracks, crane operators and groundman must ensure:</p> <ul style="list-style-type: none"> • Work is stopped. • Swing brakes are set if equipped. • Tongs, buckets, loads, or lines come to rest on the ground or car.
--	--

Rule Updated Date

July 2, 2013

[^Top](#)

77.11: Pulling Operations

77.11	<p>Pulling Applications</p> <p>When wire rope, chain, synthetic tow straps or similar devices are used for pulling applications (i.e., dragging rail, straightening safety appliances, aligning drawbars, towing vehicles, etc.), take the following precautions to avoid personal injury and property damage:</p> <ul style="list-style-type: none">• Inspect the equipment to ensure it is in good condition and has the capacity to handle the task.• Protect pulling device from sharp corners or objects.• Do not jerk against the load being pulled. Make all movements smoothly.• Position yourself and others out of the line of fire should the pulling device or attachments fail.• Protect yourself from possible whipping or recoil action should the device release suddenly.
-------	---

Rule Updated Date

July 2, 2013

[^Top](#)

77.12: MOBILE CRANES

77.12 MOBILE CRANES

Rule Updated Date

July 2, 2013

[^Top](#)

77.12.1: Safe Load Placard

77.12.1	Safe Load Placard
---------	-------------------

	<p>Equipment for lifting, hoisting or handling material must have a Load Chart Placard posted where it is visible to the crane operator. The placard indicates the safe loads at various radii. Crane operators must be familiar with the safe lifting capacity, at minimum and maximum radius and with or without outriggers, as specified on the placard.</p> <p>Do not handle loads that exceed the load chart capacities.</p>
--	--

Rule Updated Date

July 2, 2013

[^Top](#)

77.12.2: Boom Inspection

77.12.2	<p>Boom Inspection</p> <p>Booms must be lowered for:</p> <ul style="list-style-type: none"> • Inspections. • Lubrication. • Repairs.
---------	--

Rule Updated Date

July 2, 2013

[^Top](#)

77.12.3: Handling Equipment in Work Train

77.12.3	<p>Handling Equipment in Work Train</p> <p>When equipment with booms, leads or other attachments is being handled in work train service, the crane operator must remain on the machine during all train movements unless the machine has been securely blocked to protect against swinging or other movements.</p> <p>Properly block machines mounted on top of or working from flat cars to prevent the machine from moving when cars are being switched or moved. Do not block the machine when it is being used and is under the control of a crane operator.</p>
---------	---

Rule Updated Date

July 2, 2013

[^Top](#)

77.13: OVERHEAD CRANES / HOISTS

77.13 OVERHEAD CRANES/HOISTS

<i>Note: See Safety Resource Manual, Overhead Crane Policy Section IV-AA.</i>

Rule Updated Date

July 2, 2013

[^Top](#)

77.13.1: Test Crane / Hoist

77.13.1 <i>Ref. Rule(s)</i> 138.0	Test Crane/Hoist Test crane/hoist at the beginning of each shift or prior to first use as follows: <ul style="list-style-type: none">• Notify personnel in the area that the crane/hoist will be tested and to stay clear.• Test controls to ensure proper operation of trolley, bridge, and hoist movements.• Verify that:<ul style="list-style-type: none">○ Crane/hoist is operable.○ Hook is free of obstructions and is not attached to a load.○ Brakes are properly adjusted.
--	---

Rule Updated Date

July 2, 2013

[^Top](#)

77.13.2: Load Movement

77.13.2	Load Movement
----------------	----------------------

	When traveling, sound alarm frequently if not automatically actuated. Suspended load must not pass over any individual or come in contact with equipment or other objects along the load path.
--	--

Rule Updated Date

July 2, 2013

[^Top](#)

77.14: WIRE ROPE

77.14 WIRE ROPE

Rule Updated Date

July 2, 2013

[^Top](#)

77.14.1: Wire Rope Inspection / Repair / Replacement

77.14.1	<p>Wire Rope Inspection / Repair / Replacement</p> <p>Inspect, repair or replace wire rope when the following defects are discovered:</p> <ul style="list-style-type: none">• In running ropes, six or more randomly distributed broken wires in one lay or three or more broken wires in one strand in one lay. (One lay of wire rope is the distance along the wire rope in which one strand makes a complete revolution around the rope.)• In rotation resistance ropes, 2 randomly distributed broken wires in 6 rope diameters or four randomly distributed broken wires in 30 rope diameters.• Wear of one-third of the original diameter of outside individual wires.• Kinking, crushing, bird-caging, or any other damage that distorts the wire rope structure.• Evidence of any heat damage.• Nominal diameter reduced by more than:<ul style="list-style-type: none">- 3/64 inch for diameters up to and including 3/4 inch.- 1/16 inch for diameters 7/8 inch to 1-1/8 inches.- 3/32 inch for diameters 1-1/4 inches to 1-1/2 inches.• In standing ropes, more than two broken wires in one lay in sections beyond end connections.• Corroded, broken wires, cracked, bent, worn, or improperly applied end connections.
----------------	--

	<ul style="list-style-type: none"> • Any wire rope, one or more broken wires at an end connection. For this type of break, if the wire rope is long enough, cut off 6 to 8 feet of rope from the end connection and make a new connection. • One or more broken wires in running rope, with breaks in the valleys between strands. <p>Use only the wire rope recommended by the manufacturer. Ensure the wire rope has the required certification paper detailing size, construction, type of lay, breaking strength and other pertinent information.</p> <p>Exception: Wire rope, removed from service, may be used in non-critical applications such as tie downs, closing line for buckets, etc.</p>
--	--

Rule Updated Date

July 2, 2013

[^Top](#)

77.14.2: Wire Rope Handling

<p>77.14.2</p>	<p>Wire Rope Handling</p> <p>Store and install wire rope as follows:</p> <ul style="list-style-type: none"> • Store wire rope to prevent damage or deterioration. • Lubricate stored rope to prevent corrosion or rust. • Uncoil wire rope with care to avoid kinking or twisting. • Before cutting a wire rope, place seizings on each side of the point where the wire rope will be cut to prevent the strands from unwinding. Place the seizings as follows: <ul style="list-style-type: none"> • On preformed wire rope, place one seizing on each side of the cut. • On non-preformed wire ropes of 7/8-inch diameter or smaller, place two seizings on each side of the cut. • For non-preformed wire ropes 1 inch or larger, place three seizings on each side of the cut. <p>Avoid dragging the wire rope in dirt or around objects that will scrape, nick, crush or cause sharp bends in the wire rope.</p>
-----------------------	---

Rule Updated Date

July 2, 2013

[^Top](#)

77.14.3: Wire Rope Maintenance

77.14.3	<p>Wire Rope Maintenance</p> <p>Wire rope cleaning and lubrication:</p> <ul style="list-style-type: none">• Clean wire ropes as necessary.• Use compatible lubricant specified by the manufacturer.• When lubricating, pay particular attention to sections located over sheaves or otherwise hidden during inspection and maintenance procedures.• Periodic field lubrication is particularly important for non-rotating wire rope. <p>Keep wire rope lubricated to reduce internal friction and prevent corrosion. Do not over lubricate.</p>
---------	---

Rule Updated Date

July 2, 2013

[^Top](#)

77.14.4: Drum Fastening

77.14.4	<p>Drum Fastening</p> <p>Securely fasten one end of the wire rope to the drum or reel. Two full turns must always remain on the drum or reel. Do not allow the wire rope to fully unwind.</p> <p>Securely fasten the lifting or "dead" end of the wire rope to the block, device or reel with a tapered socket or an oval thimble.</p>
---------	---

Rule Updated Date

July 2, 2013

[^Top](#)

77.14.5: Sockets, Clamps, and Thimbles

77.14.5	<p>Sockets, Clamps, and Thimbles</p> <p>Use wire rope sockets on all hoisting lines at the bucket or hoist hook end, where facilities permit proper application.</p> <p>When applying thimbles, utilize the proper size and apply:</p> <ul style="list-style-type: none"> • Three properly sized clamps on 3/4 inch wire ropes and under. • Four clamps on 7/8 inch wire ropes. • Five clamps on 1 inch to 1-1/4 inch wire ropes, inclusive. • Six clamps on 1-3/8 inch and larger wire ropes. <p>Make sure clamp spacing is no less than six times the diameter of the wire rope. Apply U-bolt over dead end of the wire rope. Live end of the wire rope must rest in the saddle.</p> <p>Clamps must be re-torqued a second time after lifting first load.</p>
---------	--

Rule Updated Date

July 2, 2013

[^Top](#)

77.15: RIGGING

77.15 RIGGING

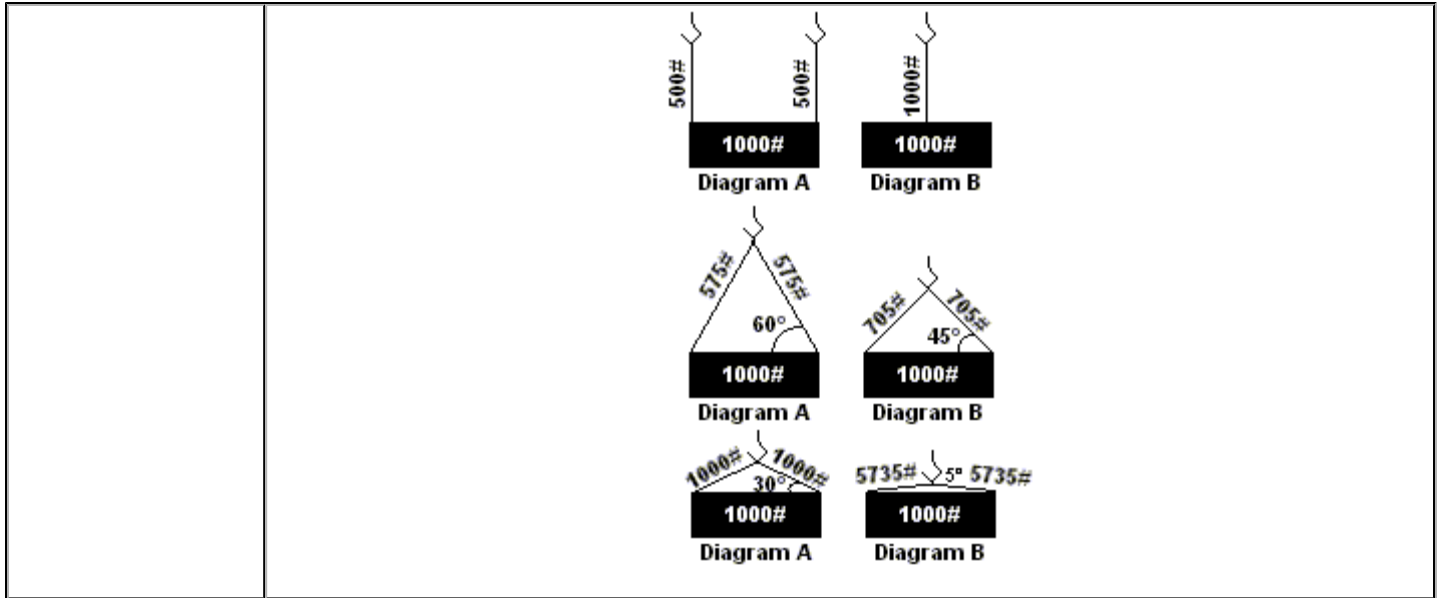
Rule Updated Date

July 2, 2013

[^Top](#)

77.15.1: Rigging

77.15.1	<p>Rigging</p> <p>Use slings (wire rope, chain or synthetic fiber) that are certified to handle the load.</p> <p>When determining the proper sling, consider that the stress in a sling varies with the angle of its legs.</p> <p>The following diagrams illustrate how the stress is increased as the angle of the legs with the horizontal is decreased. Stress for any other load will be directly proportional.</p>
---------	--



Rule Updated Date

July 2, 2013

[^Top](#)

77.16: FITTINGS

77.16 FITTINGS

Rule Updated Date

July 2, 2013

[^Top](#)

77.16.1: Fitting Inspection and Replacement

77.16.1	<p>Fitting Inspection and Replacement</p> <p>Fittings must be inspected when purchased and prior to each use.</p> <p>Replace fittings if any of the following defects are discovered during inspection:</p> <ul style="list-style-type: none"> • Indication (significant change in shape) that a fitting has been overloaded.
----------------	---

	<ul style="list-style-type: none"> • More than 10% wear of any sectional dimension. This is measured by comparing to a section of fitting that has no wear, or to original dimensions specified by the manufacturer. • Any crack, sharp nick or gouge in the surface of any fitting. • Any modification such as welding, heating, substitution of parts or bending. • More than one broken wire at any (within one wire rope diameter of the fitting) termination.
--	--

Rule Updated Date

July 2, 2013

[^Top](#)

77.16.2: Hooks and Attachments

<p>77.16.2</p>	<p>Hooks and Attachments</p> <p>Handles and other attachments must not be welded to hooks. Hooks designed for safety latches must have them in place prior to use.</p> <p>Do not use:</p> <ul style="list-style-type: none"> • Non-alloyed carbon-steel hooks. • Repair links or other attachments. • Shop made hooks or attachments unless approved through departmental procedures. • Makeshift bolts, rods, shackles, hooks or other attachments. <p>Hooks must be replaced if they show any deformation such as:</p> <ul style="list-style-type: none"> • Visible bend or twist from the plane of the unbent hook. • Distortion causing an increase in throat opening. • Cracks, excessive wear or damage from chemicals, heat, etc. <p>Dye penetrant or equivalent testing must be conducted on crane hooks annually. Hooks purchased after Sept. 30, 1991, require a dated record of proof load testing.</p>
-----------------------	--

Rule Updated Date

July 2, 2013

[^Top](#)

77.17: SLINGS

77.16 FITTINGS

Rule Updated Date

July 2, 2013

[^Top](#)

77.17.1: Slings Inspections / Replacement

77.17.1	<p>Sling Inspection / Replacement</p> <p>Inspect slings prior to each use. A periodic inspection must be performed by a designated person; a record of the inspection is required.</p> <p>Slings must be replaced if sling identification tags are missing or unreadable.</p> <p>A. Wire Rope Slings</p> <p>Inspect prior to each use and replace if any of the following defects are discovered:</p> <ul style="list-style-type: none">• Distortions of the sling such as kinking, crushing, un-stranding, birdcaging, main strand displacement or core protrusion.• General corrosion of the sling or severe corrosion of the end attachments.• Broken or cut strands.• Ten randomly distributed broken wires in one wire rope lay, or five broken wires in one rope strand in one rope lay for strand laid and single part slings.• Loss of wire rope diameter in short rope lengths or unevenness of outer strands.• Severe localized abrasion or scraping.• Heat damage.• Cracked, deformed or worn end attachments to the extent the strength of the sling is substantially affected. <p>B. Chain Slings and Attachments</p> <p>Inspect prior to each use and replace if any of the following defects are discovered:</p> <ul style="list-style-type: none">• Wear, nicks, cracks, breaks, gouges, bends and weld splatter.• Elongation exceeding 15%.• Discoloration from excessive temperature.• Excessive throat openings of hooks.• Chain links or attachments do not hinge freely to adjacent links.• Latches on hooks, if equipped, do not hinge freely, seat properly or are permanently distorted.
---------	---

	<p>C. Synthetic, Webbing, and Round Slings</p> <p>Inspect prior to each use and replace if any of the following defects are discovered:</p> <ul style="list-style-type: none"> • Acid or caustic burns. • Melting or charring. • Tears, cuts, snags, or excessive abrasive wear. • Broken or worn stitching in load bearing splices. • Knots in any part of the sling or slings tied together. • Excessive pitting or corrosion. • Cracked, distorted or broken fittings. • Visible damage that may compromise the strength of the sling. <p>Replace slings equipped with a protective cover if broken or worn stitching exposes the core fibers of the sling.</p>
--	---

Rule Updated Date

July 2, 2013

[^Top](#)

77.17.2: Chain Working Loads

77.17.2	<p>Chain Working Loads</p> <p>Grade 80 or above high-strength alloy is the only chain to be used for lifting, hoisting, pulling or any other load bearing application; unless the chain is supplied and certified by a manufacturer as a part of a manufactured device (i.e. a lifting sling, chain hoist, etc.).</p>
---------	--

Rule Updated Date

July 2, 2013

[^Top](#)

77.17.3: Chain Lifting Devices

77.17.3	<p>Chain Lifting Devices</p> <p>All lifting devices, such as hooks, links, pins, etc., must be made of alloy steel.</p>
---------	--

	Lifting devices made of mild or rolled steel are prohibited.
--	--

Rule Updated Date

July 2, 2013

[^Top](#)

77.17.4: Chain Sling Use

77.17.4	<p>Chain Sling Use</p> <p>To avoid personal injury or chain damage:</p> <ul style="list-style-type: none">• Keep chains free of twists, kinks or knots.• Grab hooks must fit the chain and be placed on the hitch to prevent side strain during the lift.• Apply load gradually to prevent chain jerk.• Protect chain from sharp corners or objects, corrosion, and high temperature.• When repairing lifting chains, do not use the following types of links:<ul style="list-style-type: none">• Patent.• Repair.• Figure eight.
---------	--

Rule Updated Date

July 2, 2013

[^Top](#)

77.17.5: Chain Lubrication

77.17.5	<p>Chain Lubrication</p> <p>Use an approved lubricant on chains as required when operating over sheaves or pulleys. Minimize dripping of lubricant.</p>
---------	--

Rule Updated Date

July 2, 2013

[^Top](#)

77.17.6: Eye Bolts and Hoist Rings

77.17.6	<p>Eye Bolts and Hoist Rings</p> <p>Select the proper size swivel hoist ring to allow for load in sling leg. Use the following guidelines:</p> <ul style="list-style-type: none">• Use shoulder nut eye bolts for angular lifts.• Tighten nuts securely against the load.• Apply load to eye bolt in the plane of the eye. <p>Do not:</p> <ul style="list-style-type: none">• Exceed working load limits.• Use regular eye bolts for angular lifts. <p>When using lifting slings of two or more legs make sure the forces in the leg are calculated.</p>
---------	--

Rule Updated Date

July 2, 2013

[^Top](#)

77.17.7: Ropes

77.17.7	<p>Ropes</p> <p>Inspect all manila, hemp, or synthetic fiber ropes before they are used for lifting. Remove any frayed, cut, or defective rope from service immediately.</p>
---------	---

Rule Updated Date

July 2, 2013

[^Top](#)

[Union Pacific Rules](#)

Safety Rules

78.0: ELECTRICAL

- [78.0: Electrical](#)
- [78.1: Qualified Employees](#)
- [78.2: Lockout / Tagout](#)
- [78.3: Electrical Cords / Insulation / Grounding](#)
- [78.4: Electrical Panels](#)
- [78.5: Voltage Rated Rubber Gloves](#)
- [78.6: Precautions Around Exposed Energized Circuits](#)
- [78.7: Employees Working Near Power Lines](#)
- [78.8: Operating Booms Near Power Lines](#)
- [78.9: Power Supply Turned Off](#)
- [78.10: Handling Electric Wires](#)

78.0: Electrical

78.0 ELECTRICAL

Rule Updated Date

July 2, 2013

[^Top](#)

78.1: Qualified Employees

78.1 <i>Ref. Electrical Safety Rules (ESR) PB-20502 SRM Section AB & AF</i>	Qualified Employees Only qualified employees are permitted to: <ul style="list-style-type: none">• Work on electrical apparatus of equipment.• Climb poles and replace fuses on power poles or work on transformers.• Work on lines or equipment energized in excess of 50 volts phase to ground.
---	---

Rule Updated Date

July 2, 2013

[^Top](#)

78.2: Lockout / Tagout

<p>78.2 <i>Ref. SRM Section H & ESR 3.3</i></p>	<p>Lockout/Tagout</p> <p>Lockout or tagout a de-energized energy source before performing maintenance or repair work.</p> <ul style="list-style-type: none">• All Lockout/Tagout procedures must comply with ESR 3.3. <p>Do not:</p> <ul style="list-style-type: none">• Remove warning signs or blocks placed on locks by other employees.• Energize any circuit so protected, unless authorized to do so by the employee(s) who placed it there for protection.
--	--

Rule Updated Date

July 2, 2013

[^Top](#)

78.3: Electrical Cords / Insulation / Grounding

<p>78.3</p>	<p>Electrical Cords / Insulation / Grounding</p> <p>Power cord insulation and connections on electrical cords must be frequently inspected and maintained in a safe condition. If an electrical tool is not UL listed as double insulated, proper ground connection is required.</p> <p>Use cords in an approved manner. Electric power tools must not:</p> <ul style="list-style-type: none">• Be picked up or lowered by the power cord.• Have grounding prong removed.• Overload electrical outlets. <p>The use of a ground fault circuit interrupter (GFCI) is required for use in any work environment that is or may become wet and any other areas that are highly grounded. For example, a work area with a metal floor.</p>
--------------------	---

Rule Updated Date

July 2, 2013

[^Top](#)

78.4: Electrical Panels

78.4	<p>Electrical Panels</p> <p>In shop areas, the floor area in front of electrical panels must be kept clear of any obstruction.</p> <p>The cleared surface must be:</p> <ul style="list-style-type: none">• Painted red with a white border.• Extended a minimum of 36 inches forward of the electrical panel.• A minimum of 36 inches wide, or the width of the box, whichever is greater.• Stenciled with wording "KEEP CLEAR." <p>Circuit breakers must be properly labeled as to the circuit controlled.</p>
-------------	---

Rule Updated Date

July 2, 2013

[^Top](#)

78.5: Voltage Rated Rubber Gloves

78.5 <i>Ref. ESR 3.5.2</i>	<p>Voltage Rated Rubber Gloves</p> <p>Wear approved voltage rated rubber gloves when working on energized circuits of 50 volts or more.</p> <p>Gloves must be tested before use by inflating with air. If a leak exists, remove a glove finger and discard the glove.</p>
--------------------------------------	--

Rule Updated Date

July 2, 2013

[^Top](#)

78.6: Precautions Around Exposed Energized Circuits

78.6 <i>Ref. ESR 3.3 & 3.4.1</i>	Precautions Around Exposed Energized Circuits		
	The policy of UPRR is to place all electrical components in an electrically safe condition before work on them begins, and that only qualified employees are to work on conductors or circuit parts. The only energized circuit work allowed is testing and troubleshooting by qualified employees using properly rated test equipment and properly rated shock and arc flash protection.		
	Unqualified employees may work no closer than specified in table below.		
	Table E NEC Approach Boundaries for Unqualified Employees From Live Equipment		
	Voltage Range (line to line)	Approach boundary from Live Fixed Equipment	Approach Boundary from Live Movable Conductors
	50 to not over 750 V	4 ft. 0 in. (1.22 m)	10 ft. 0 in. (3.04 m)
	over 750 V, not over 15 kV	5 ft. 0 in. (1.52 m)	10 ft. 0 in. (3.04 m)

Rule Updated Date

July 2, 2013

[^Top](#)

78.7: Employees Working Near Power Lines

78.7 <i>Ref. NFPA 70E 2012 Table 130.4 (C)(a)</i>	Employees Working Near Power Lines	
	A qualified person is required to measure clearances using the proper instruments. Do not use steel or cloth tapes, ropes or strings to measure overhead clearance.	
	When performing work near electrical power lines, the clearance shown below must be maintained between unqualified personnel, tools and equipment, and the nearest power line.	
	Operating Voltage	Distance

	50 V - 750 V	10 feet
	751 V - 72.5 kV	10 feet
	72.6 kV - 121 kV	10 feet 8 inches
	138 kV - 145 kV	11 feet
	161 kV - 169 kV	11 feet 8 inches
	230 kV - 242 kV	13 feet
	345 kV - 362 kV	15 feet 4 inches
	500 kV - 550 kV	19 feet
	765 kV - 800 kV	23 feet 9 inches

Rule Updated Date

May 2, 2016

System Special Instructions

Effective Date: May 2, 2016

[^Top](#)

78.8: Operating Booms Near Power Lines

<p>78.8 <i>Ref. 29 CFR 1926.1408</i></p>	<p>Operating Booms Near Power Lines</p> <p>Do not operate booms over power lines at any time. Do not operate booms under power lines unless proper clearance is maintained.</p> <p>At stationary worksites, crane operators must place at least three (3) orange cones evenly spaced along the minimum clearance line to mark the minimum safe working distance to overhead power lines.</p> <p>A. Operation Near Energized Lines</p> <p>A. If booms must be operated near energized lines, maintain the minimum clearances listed in the table listed below.</p> <p style="text-align: center;">MINIMUM CLEARANCE DISTANCES</p>
---	--

Voltage (nominal, kV, alternating current)	Minimum clearance distance (feet)
up to 50	10
over 50 to 200	15
over 200 to 350	20
over 350 to 500	25
over 500 to 750	35
over 750 to 1,000	45
over 1,000	(as established by the utility owner/operator or registered professional engineer who is a qualified person with respect to electrical power transmission and distribution).

Note: The value that follows "to" is up to and includes that value. For example, over 50 to 200 means up to and including 200kV

A groundman must be designated to observe equipment clearance and give timely warning for all operations when it is difficult for the operator to observe clearance.

B. In Transit

B. When in transit with no load and boom lowered, use the table below.

MINIMUM CLEARANCE DISTANCES WHILE TRAVELING WITH NO LOAD

Voltage (nominal, kV, alternating current)	While traveling—minimum clearance distance (feet)
up to 0.75	4
over .75 to 50	6
50 to 345	10
over 345 to 750	16
over 750 to 1,000	20
over 1,000	(as established by the utility owner/operator or registered professional engineer who is a qualified person with respect to electrical power transmission and distribution).

	If proper clearance cannot be maintained, shut off the power and ground power lines before performing work per Rule 78.9.
--	--

Rule Updated Date

May 1, 2014

System Special Instructions

Effective Date: May 1, 2014

[^Top](#)

78.9: Power Supply Turned Off

78.9 <i>Ref. Rule(s)</i> 78.7 78.8 <i>ESR 5.2</i>	Power Supply Turned Off When necessary to perform work near non-UPRR power lines that will not permit maintaining the clearance outlined in Rule 78.7 and 78.8: <ul style="list-style-type: none">• Notify the power company or controlling authority to de-energize the power supply for the affected district.• Do not start any work until authorized by the power company or controlling authority.• Do not notify the power company or controlling authority to restore power until authorized by the employee in charge. When performing work near a 50 volt or greater UPRR power line that will not permit the clearance outlined: <ul style="list-style-type: none">• Notify the local qualified employee to de-energize that portion of line.• Do not start work until the local qualified employee confirms the line has been de-energized and grounded if required, and lockout/tagout procedures have been followed.• Ensure local qualified employee understands not to energize the line until advised by the employee in charge of the work.
--	--

Rule Updated Date

July 2, 2013

[^Top](#)

78.10: Handling Electric Wires

78.10	Handling Electrical Wires Immediately report electrical wires found broken, crossed or on the ground to the train dispatcher or proper authority. Do not consider any electrical wire dead until positive information has been received that it has been de-energized and is safe to handle. Live wires can only be handled by a properly trained electrician, using approved methods and tools.
--------------	---

Rule Updated Date

July 2, 2013

[^Top](#)

Union Pacific Rules

Safety Rules

79.0: WELDING

- [79.0: WELDING](#)
- [79.1: Authorized Employees](#)
- [79.2: Protective Equipment](#)
- [79.2.1: Eye Precautions / Shade Requirements](#)
- [79.2.2: Fire Protection / Shielding](#)
- [79.2.3: Proper Clothing](#)
- [79.3: Cleaning Work Area](#)
- [79.4: Welding, Heating or Cutting on Freight Equipment](#)
- [79.5: Welding, Cutting or Heating on Tank Cars](#)
- [79.6: Welding Equipment Repairs or Alterations](#)
- [79.7: Torch Test](#)
- [79.8: Ventilation and Respiratory Protection](#)
- [79.9: Confined Spaces and Areas](#)
- [79.9.1: Confined Space Entry Safety Precautions](#)
- [79.10: Hot Work on Containers](#)
- [79.11: Oil and Grease](#)
- [79.12: Metal Cutting Precautions](#)
- [79.13: Cutting Under Tension](#)
- [79.14: Cylinders](#)
- [79.15: Regulators](#)
- [79.16: Valves](#)
- [79.17: Hoses](#)
- [79.18: Torches](#)
- [79.18.1: Flashback Arrestors](#)
- [79.19: Use of Natural Gas](#)
- [79.20: Electrical Welding](#)
- [79.20.1: Maintenance and Repair](#)
- [79.20.2: Cable Precautions](#)
- [79.20.3: Cables](#)
- [79.20.4: Portable Welding Machines](#)
- [79.20.5: Grounding Electrical Arc Welding](#)
- [79.20.6: Protect from Electrical Shock and Moisture](#)
- [79.20.7: Electrodes / Electrode Holder](#)
- [79.20.8: Polarity Switch](#)

- [79.20.9: Thermite Welding](#)

79.0: WELDING

79.0 WELDING

CUTTING, WELDING OR HEATING

Rules in this chapter, if applicable, apply to both oxygen and fuel gas operations as well as electric welding. Additional welding instructions are contained in PB-21321 and Safety Resource Manual AQ "Hot Work Program".

Rule Updated Date

July 2, 2013

[^Top](#)

79.1: Authorized Employees

79.1	Authorized Employees Only authorized employees are permitted to use welding equipment. Welding, cutting and heating will be done only by or under the direct supervision of a qualified employee and comply with manufacturer's instructions.
------	---

Rule Updated Date

July 2, 2013

[^Top](#)

79.2: Protective Equipment

79.2 Protective Equipment

Rule Updated Date

July 2, 2013

[^Top](#)

79.2.1: Eye Precautions / Shade Requirements

<p>79.2.1</p> <p><i>Ref. Rule(s)</i> 71.5.2</p>	<p>Eye Precautions / Shade Requirements</p> <p>All persons performing or observing cutting, welding or heating operations must wear proper eye protection and other personal protective equipment. They must not look at electric arc or oxyfuel flame unless properly protected and must warn others against looking at the arc or flames.</p> <p>Cracked filter glasses (lens shade) must be replaced immediately. Shade numbers of filter plates are not additive. For example, a Number 6 and Number 8 filter do not have the same effective density as a Number 14 filter.</p> <p>Refer to the following chart for minimum shade requirements of eye protection while cutting or welding.</p> <table border="1"> <thead> <tr> <th>Welding Operation</th> <th>Shade No.</th> </tr> </thead> <tbody> <tr> <td>Shielded Metal — Arc Welding — Electrodes up to and including 5/32 inch diameter</td> <td>10</td> </tr> <tr> <td>Gas Tungsten — Arc Welding (non-ferrous) and Gas-shielded Arc Welding (non-ferrous) — Electrodes up to and including 5/32 inch diameter</td> <td>11</td> </tr> <tr> <td>Gas Tungsten — Arc Welding (ferrous) and Gas-shielded Arc Welding (ferrous) — Electrodes up to and including 5/32 inch diameter</td> <td>12</td> </tr> <tr> <td>Shielded Metal — Arc Welding: Electrodes 3/16 through 1/4 inch diameter 5/16 through 3/8 inch diameter</td> <td>12 14</td> </tr> <tr> <td>Carbon — Arc Gouging — For most applications Large diameter carbon electrodes</td> <td>12 14</td> </tr> <tr> <td>Soldering</td> <td>2</td> </tr> <tr> <td>Performing oxygen — fuel gas brazing — cutting — heating</td> <td>5</td> </tr> <tr> <td>Light Cutting up to 1 inch</td> <td>4</td> </tr> <tr> <td>Medium Cutting, 1 inch to 6 inches</td> <td>5</td> </tr> <tr> <td>Heavy Cutting, 6 inches and over</td> <td>5 or 6</td> </tr> <tr> <td>Gas Welding (light) up to 1/8 inch</td> <td>5</td> </tr> <tr> <td>Gas Welding (medium) 1/8 inch to 1/2 inch</td> <td>5 or 6</td> </tr> <tr> <td>Gas Welding (heavy) 1/2 inch and over</td> <td>6 or 8</td> </tr> </tbody> </table>	Welding Operation	Shade No.	Shielded Metal — Arc Welding — Electrodes up to and including 5/32 inch diameter	10	Gas Tungsten — Arc Welding (non-ferrous) and Gas-shielded Arc Welding (non-ferrous) — Electrodes up to and including 5/32 inch diameter	11	Gas Tungsten — Arc Welding (ferrous) and Gas-shielded Arc Welding (ferrous) — Electrodes up to and including 5/32 inch diameter	12	Shielded Metal — Arc Welding: Electrodes 3/16 through 1/4 inch diameter 5/16 through 3/8 inch diameter	12 14	Carbon — Arc Gouging — For most applications Large diameter carbon electrodes	12 14	Soldering	2	Performing oxygen — fuel gas brazing — cutting — heating	5	Light Cutting up to 1 inch	4	Medium Cutting, 1 inch to 6 inches	5	Heavy Cutting, 6 inches and over	5 or 6	Gas Welding (light) up to 1/8 inch	5	Gas Welding (medium) 1/8 inch to 1/2 inch	5 or 6	Gas Welding (heavy) 1/2 inch and over	6 or 8
Welding Operation	Shade No.																												
Shielded Metal — Arc Welding — Electrodes up to and including 5/32 inch diameter	10																												
Gas Tungsten — Arc Welding (non-ferrous) and Gas-shielded Arc Welding (non-ferrous) — Electrodes up to and including 5/32 inch diameter	11																												
Gas Tungsten — Arc Welding (ferrous) and Gas-shielded Arc Welding (ferrous) — Electrodes up to and including 5/32 inch diameter	12																												
Shielded Metal — Arc Welding: Electrodes 3/16 through 1/4 inch diameter 5/16 through 3/8 inch diameter	12 14																												
Carbon — Arc Gouging — For most applications Large diameter carbon electrodes	12 14																												
Soldering	2																												
Performing oxygen — fuel gas brazing — cutting — heating	5																												
Light Cutting up to 1 inch	4																												
Medium Cutting, 1 inch to 6 inches	5																												
Heavy Cutting, 6 inches and over	5 or 6																												
Gas Welding (light) up to 1/8 inch	5																												
Gas Welding (medium) 1/8 inch to 1/2 inch	5 or 6																												
Gas Welding (heavy) 1/2 inch and over	6 or 8																												

--	--

Rule Updated Date

July 2, 2013

[^Top](#)

79.2.2: Fire Protection / Shielding

<p>79.2.2</p> <p><i>Ref. SRM Section AH</i></p> <p><i>Ref. Rule(s) 72.2.</i></p>	<p>Fire Protection / Shielding</p> <p>Before welding, heating or cutting on or near equipment with fuel tanks, ensure appropriate fire prevention measures have been implemented.</p> <p>Fire extinguishers, fire hoses or other suitable fire extinguishing equipment must be on hand during welding, cutting, and other open flame torch operations.</p> <p>Use shields or other protective devices to:</p> <ul style="list-style-type: none"> • Prevent setting fire to or damaging bridges, structures, or other material. • Shield the welding arc from the view of others whenever possible. <p>Before leaving the work site, the employee in charge must comply with their departmental fire prevention plan and ensure no fire or fire hazard exists.</p>
---	--

Rule Updated Date

July 2, 2013

[^Top](#)

79.2.3: Proper Clothing

<p>79.2.3</p>	<p>Proper Clothing</p> <p>When cutting, heating or welding wear:</p> <ul style="list-style-type: none"> • Hearing protection. • High top boots. • Approved welding gloves or mittens.
----------------------	---

	<p>Always wear approved flame resistant clothing that:</p> <ul style="list-style-type: none"> • Protects the skin from infrared and ultraviolet radiation and covers the arms. • Reduces the possibility of catching fire. • Has all buttons and snaps fastened. • Has sleeves and pockets secured against sparks or slag. • Is free of oil or grease. • Is without cuffs. <p>For overhead welding and other applications where clothing or body may be exposed to sparks or slag, wear a full leather welding jacket and additional approved leather protective outerwear such as:</p> <ul style="list-style-type: none"> • Spats or sleeves. • Aprons. • Leggings. <p>Do not carry lighters or matches during welding operations.</p> <p>Kevlar jacket or Kevlar jacket with leather sleeves are not intended for overhead welding.</p>
--	--

Rule Updated Date

May 2, 2016

System Special Instructions

Effective Date: May 2, 2016

[^Top](#)

79.3: Cleaning Work Area

79.3	<p>Cleaning Work Area</p> <p>Do not use your hands, gloved or not, to remove slag or metal from material being welded or cut.</p>
-------------	--

Rule Updated Date

July 2, 2013

[^Top](#)

79.4: Welding, Heating or Cutting on Freight Equipment

<p>79.4</p>	<p>Welding, Heating or Cutting on Freight Equipment</p> <p>Before welding, heating or cutting a job briefing must be conducted to ensure:</p> <ul style="list-style-type: none"> • It is known what the car contains, or last contained if empty and any special safety precautions needed. • A fire extinguisher of the proper class is in the immediate vicinity of the work. • Lading or equipment will not be damaged by the work. • Adequate ventilation and/or respiratory equipment are provided when required. • Cars are placed at the end of the shop, when possible. • Welding, heating or cutting will be stopped 30 minutes before close of shift. <p>While working:</p> <ul style="list-style-type: none"> • On a loaded boxcar, the door must be open and interior of car continuously monitored until no threat of fire exists. • In the event of a fire: <ul style="list-style-type: none"> • Close car doors and move car outside shop to be extinguished if it can be done without causing injury. • Extinguish fire only if injury can be prevented. • Contact local emergency personnel if necessary to safely extinguish fire. • Meet UPRR, FRA and AAR criteria for safety and interchange ability. <p>Before leaving the worksite:</p> <ul style="list-style-type: none"> • Ensure no fire exists. • Re-check cars that were welded or heated anytime during the shift. • Turnover to subsequent shifts cars that were welded, heated or cut. • Ensure cars are set on their trucks at the close of work, whenever possible. • Close doors on cars left under shop roof.
--------------------	---

Rule Updated Date

July 2, 2013

[^Top](#)

79.5: Welding, Cutting or Heating on Tank Cars

<p>79.5</p> <p><i>Ref. SRM Sections E, G & I</i></p>	<p>Welding, Cutting or Heating on Tank Cars</p> <p>In addition, follow departmental policy, and other applicable policies, i.e., Confined Space Entry, Respiratory Protection, Hazard Communication Standard, etc.</p>
---	---

<p><i>Rule(s)</i> 70.21 79.4</p>	<p>When making repairs to tank cars, other than maintenance of way water cars, follow these procedures:</p> <ol style="list-style-type: none"> 1. Determine car's contents, or if empty, its last contents and comply with the hazardous material information, or information available on precautions to be taken. 2. Inspect for physical signs of content leakage and check the car with a flammable gas detector prior to performing repairs on a tank car that contains or last contained: <ul style="list-style-type: none"> • Flammable gas, liquid or solid. • Chlorine or other poisonous gas. • Corrosives. • Explosives. <p>If leakage exists, follow procedures outlined in your response plan. Leakage must be stopped before making repairs.</p> 3. Repairs to the top dome areas or near the bottom outlet must be restricted to those necessary for safe movement only. Welding, cutting and/or heating is prohibited in these areas. 4. Welding or use of a cutting torch directly on either the inner or outer tank shell jacket is prohibited, unless departmental instructions make provisions for such work. <p>These instructions apply to tank cars that are within 50 feet of welding or torch burning repairs being performed on other equipment.</p>
--	---

Rule Updated Date

May 2, 2016

System Special Instructions

Effective Date: May 2, 2016

[^Top](#)

79.6: Welding Equipment Repairs or Alterations

<p>79.6</p>	<p>Welding Equipment Repairs or Alterations</p> <p>Do not make repairs or alterations to:</p> <ul style="list-style-type: none"> • Cylinders. • Valves. • Torches.
-------------	--

	<ul style="list-style-type: none"> • Regulators. <p>Hoses must be replaced when showing:</p> <ul style="list-style-type: none"> • Leaks. • Burns. • Excessive wear. • Damage from flashback. <p style="text-align: center;">or</p> <ul style="list-style-type: none"> • Other defects. <p>Defective regulators, torches or other equipment must not be used and must be tagged and returned for repair.</p>
--	---

Rule Updated Date

July 2, 2013

[^Top](#)

79.7: Torch Test

79.7	<p>Torch Test</p> <p>Torch test must be conducted:</p> <ul style="list-style-type: none"> • Prior to each use. • When combination torches have been changed. • When the torch equipment has been dropped or is suspected of being damaged. • When a flashback has occurred. • When new torch equipment is installed. <p>Torch test must be conducted in a well ventilated area with no ignition sources present.</p> <p>Test will be conducted in accordance with departmental instruction.</p>
-------------	---

Rule Updated Date

May 2, 2016

System Special Instructions

Effective Date: May 2, 2016

[^Top](#)

79.8: Ventilation and Respiratory Protection

79.8 <i>Ref. SRM Section E</i>	Ventilation and Respiratory Protection Exposure to lead, zinc or other welding fumes requires use of an approved respirator. Spray or dust respirators are not suitable and must not be used. Ensure work areas have adequate ventilation. Use additional forced air ventilation when necessary.
--	---

Rule Updated Date

July 2, 2013

[^Top](#)

79.9: Confined Spaces and Areas

79.9 <i>Ref. SRM Section G</i>	Confined Spaces and Areas When working in a building or in a confined space, place fuel-driven welding machines where exhaust fumes can be safely dissipated. Make certain exhaust fumes are not directed toward or into air intake parts on ventilation systems or air supplying equipment (e.g., compressors).
--	--

Rule Updated Date

July 2, 2013

[^Top](#)

79.9.1: Confined Space Entry Safety Precautions

79.9.1 <i>Ref. SRM Section G</i>	Confined Space Entry Safety Precautions Follow confined space entry procedures listed in the Safety Resource Manual when working in tanks, vats, boilers, sewers, etc., and: <ul style="list-style-type: none">• Provide general mechanical or local exhaust ventilation before and during welding operations.
--	--

	<ul style="list-style-type: none"> • Use respiratory protection. • Test the welding equipment for leaks before entering a confined space. • Keep oxygen/fuel-gas cylinders outside the confined space. <p>Remove oxygen/fuel gas equipment, or inert gas used for electrical welding, from confined space when not in use.</p>
--	---

Rule Updated Date

July 2, 2013

[^Top](#)

79.10: Hot Work on Containers

<p>79.10</p> <p><i>Ref. LMI-2501</i></p>	<p>Hot Work on Containers</p> <p>Do not perform hot work on any containers such as drums, barrels, or tanks until the following conditions have been met:</p> <ol style="list-style-type: none"> 1. Determine what the container last held. Thoroughly steam and wash out any container that held volatile or flammable materials. 2. Prior to performing hot work on any new or used container, trained personnel must test the container. The Lower Explosive Limit (LEL) must be <10% prior to and during any hot work activity. 3. After cleaning, further safeguard the container by filling it with water, if possible. 4. If the container last held a gas or liquid which may not readily dissolve in water, an inert gas must be used to evacuate any flammable gas or vapors from the container. 5. Ensure container has a vent or opening to allow heated air to escape. <p>Thoroughly steam and wash new or used piston heads and hollow casting prior to performing hot work.</p>
---	---

Rule Updated Date

July 2, 2013

[^Top](#)

79.11: Oil and Grease

79.11	Oil and Grease
--------------	-----------------------

	<p>Do not allow oil and grease to come in contact with oxygen and:</p> <ul style="list-style-type: none"> • Keep hands, gloves, clothes, and welding equipment free of oil and grease to prevent fires. • Do not allow oil and grease to touch regulators, valves or connections.
--	---

Rule Updated Date

July 2, 2013

[^Top](#)

79.12: Metal Cutting Precautions

<p>79.12</p>	<p>Metal Cutting Precautions</p> <p>Take precautions when cutting by using barrier or spark guard to prevent sparks, hot metal or severed sections from contacting:</p> <ul style="list-style-type: none"> • Cylinders. • Hoses. • Cables. <p style="text-align: center;">or</p> <ul style="list-style-type: none"> • Other flammable material. <p>Do not lay object or material to be heated, cut or welded across a cylinder or on concrete.</p>
--------------	---

Rule Updated Date

July 2, 2013

[^Top](#)

79.13: Cutting Under Tension

<p>79.13</p> <p><i>Ref. Rule(s)</i> 70.17</p>	<p>Cutting Under Tension</p> <p>Take precautions to prevent personnel from being struck by severed sections when cutting:</p> <ul style="list-style-type: none"> • Twisted rail. • Cars. • Locomotives.
---	---

	<p style="text-align: center;">or</p> <ul style="list-style-type: none"> • Other damaged steel sections. <p>Special equipment, such as burning bars, are available for this operation and should be used.</p>
--	--

Rule Updated Date

July 2, 2013

[^Top](#)

79.14: Cylinders

<p>79.14</p>	<p>Cylinders</p> <p>A. Storing Cylinders</p> <p>When fuel gas and oxygen cylinders are stored:</p> <ul style="list-style-type: none"> • Handle with extreme caution to avoid dropping and damaging valves. • Separate oxygen cylinders from fuel gas cylinders. <ul style="list-style-type: none"> • Maintain a minimum distance of 20 feet. <p style="text-align: center;">or</p> <ul style="list-style-type: none"> • Place a barrier of noncombustible material that is at least 5 feet high and has a fire resistance rating of at least 1/2 hour between the oxygen and fuel gas cylinders. <ul style="list-style-type: none"> • Keep in upright positions on approved racks and properly secured with valve ends up when stored or transported. • Keep in cool, well ventilated buildings away from elevators, stairs and passageways and near exits when possible for easy removal in case of fire. • Do not smoke or use open-flame in buildings where cylinders are stored. Keep cylinders away from combustible materials (e.g., oils, paints, shavings, and other flammable materials). • NO SMOKING and KEEP OPEN FLAMES AWAY signs must be posted on all visible sides. • All valves must be kept closed with valve caps in place when not in use, including empty cylinders. • Connections and appliances must be free from oil and grease. • Do not handle cylinders with oily hands or gloves. <p>When possible, store cylinders in the open, provided cylinders can be protected against freezing or direct sunlight.</p> <p>B. Working With or Near Cylinders</p>
---------------------	--

Keep fuel gas and oxygen cylinders in an upright position and do not:

- Place where they may become part of an electrical circuit, near wires and electrical welding circuits.
- Strike an arc on or tap an electrode against a cylinder.
- Throw, drop or roughly handle cylinders.

Compressed gas cylinders must be secured in an upright position at all times except while being hoisted or carried.

Cylinders may be lifted by a crane, derrick or hoist only when a company-approved lifting device is used, and employees have been instructed on its use. Do not use an electric magnet to lift cylinders.

When working near cylinders, do not allow cylinders to be exposed to:

- Sparks.
- Hot slag.
- Open flame and other sources of excessive heat.

C. Transporting Cylinders

Remove gauges and regulators, and apply caps before transporting oxygen or fuel gas cylinders, unless valves are covered by a DOT approved safety cap or device designed for that purpose. When completing a single series of welding operations, caps are not required.

When transporting cylinders in enclosed compartments, ensure ventilation is provided.

D. Empty Cylinders

When cylinders are empty:

- Close the valve before disconnecting the hose. Valves must remain closed when not in use.
- Cap empty cylinders.
- Remove the bottom half of the tag when provided.
- Separate empty cylinders from full cylinders.
- Promptly exchange empty cylinders at the supply point.

E. Leaking Cylinder

When a leaking cylinder is discovered:

- Move it to an open area away from possible ignition sources until the cylinder becomes empty.
- Mark the cylinder, to indicate the leak for the supplier to take necessary action.

F. Changing Cylinders

Before a regulator is removed, the cylinder valve must be closed and the gas released from the regulator.

Remove any possible gas mixture by draining both hoses, oxygen hose first.

Rule Updated Date

July 2, 2013

[^Top](#)

79.15: Regulators

79.15	<p>Regulators</p> <p>A. Proper Regulator</p> <p>Do not use a regulator with a gas not intended for that regulator.</p> <p>Each oxygen/fuel gas station must:</p> <ul style="list-style-type: none">• Have a shut off valve.• Be controlled with a pressure reducing regulator.• Have regulators with operable gauges to obtain the recommended test pressures. <p>Regulators without gauges must not be used.</p> <p>B. Connections and Adapters</p> <p>Do not force connections. If the thread does not run easily, usually the wrong sized regulator is being applied.</p> <p>Use a standard adapter between the cylinder and the regulator if required. "T" or "Y" type connectors are not allowed.</p> <p>C. Connecting Regulators</p> <p>To remove foreign matter, before connecting regulators to cylinders, the valve must be opened approximately one-quarter turn and closed immediately.</p> <p>Do not open valve near other welding work or near sparks, flame or other possible sources of ignition.</p> <p>Pressure adjusting screws must be fully released before attaching regulator to cylinder.</p> <p>D. Protecting Regulators</p> <p>Protect regulators when not in use by:</p> <ol style="list-style-type: none">1. Closing cylinder valves.2. Draining hose at the torch. <ul style="list-style-type: none">○ Prevent a gas mixture from accumulating in the hose when either is being relieved of pressure by closing the valve of the other hose. This will prevent flashback which could damage the torch, hose or pressure regulator.
--------------	--

	3. Releasing pressure on the diaphragm.
--	---

Rule Updated Date

July 2, 2013

[^Top](#)

79.16: Valves

79.16	<p>Valves</p> <p>A. Opening Cylinder Valves</p> <p>When opening cylinder valves:</p> <ul style="list-style-type: none">• Stand to one side, away from gauge faces and front of the regulator.• Slowly open cylinder valve until the high-pressure gauge indicates full pressure. Then fully open the valve.• When a "T" wrench is used on an acetylene cylinder valve do not open the valve more than 1 ½ turns. Leave the "T" wrench on the valve stem in case of emergency.• Tools that could damage regulator connections must not be used. <p>Do not use hammer or wrench to open a valve. Return cylinder to vendor if valve cannot be opened by hand.</p> <p>Do not use the recessed top of a cylinder as a receptacle for tools or other articles.</p> <p>B. Closing Valves</p> <p>When not in use, work is stopped, or the operator leaves the equipment, close valves and relieve pressure on regulators and hoses.</p> <p>C. Clogged Valves</p> <p>If acetylene cylinder valves become clogged by ice or snow, use warm water to thaw them. Do not use boiling water or any type of flame to thaw acetylene cylinder valves.</p>
--------------	---

Rule Updated Date

July 2, 2013

[^Top](#)

79.17: Hoses

79.17	<p>Hoses</p> <p>Use only oxygen-fuel equipment designed for the particular fuel gas. When not in use, hoses must be properly stored to prevent damage.</p> <p>A. Hoses and Color Codes</p> <p>Hoses must be inspected prior to each use. Repair or replace hoses with leaks, excessive wear or other defects.</p> <p>Use long lengths of hose only when necessary. Check connections for leaks and protect hose from being stepped on, run over, kinked or tangled.</p> <p>When hoses are taped together to prevent tangling, not more than 4 inches out of 12 inches may be covered by tape.</p> <p>Use T-Grade welding hose for welding. Where possible, 3/8 inch hose will be used to reduce pressure drop.</p> <p>Color codes for hose are:</p> <p style="padding-left: 40px;">Red -----Combustible gases</p> <p style="padding-left: 40px;">Green---Oxygen</p> <p>Hose must be used only with the gases for which intended. Do not use hose for other purposes.</p> <p>B. Hose Connections</p> <p>Purge new hose with gas for which the hose will be used to remove talc.</p> <p>When making hose connections use only:</p> <ul style="list-style-type: none"> • Crimp ferrules. • Approved reverse flow devices. • Approved positive locking quick disconnects designed for oxygen-fuel. <p>Use no more than two splices for any length hose. Do not use tape or wire to splice or repair hose.</p>
-------	---

Rule Updated Date

July 2, 2013

[^Top](#)

79.18: Torches

79.18	Torches
-------	---------

	<p>Torches must be maintained in good condition and:</p> <ul style="list-style-type: none"> • Handled carefully. • Used with tips designed for the fuel gas. • When lit must not be: <ul style="list-style-type: none"> ◦ Laid down. ◦ Passed from one person to another. <p style="text-align: center;">or</p> <ul style="list-style-type: none"> ◦ Kept in your hand when climbing. <ul style="list-style-type: none"> • When not in use, valves must be closed and torch stored in a safe place. • Do not use torch as a hammer. <p>A. Torch Precautions</p> <p>When working with torches:</p> <ul style="list-style-type: none"> • Ensure gas stream is not directed toward yourself or others. • Keep flame and sparks directed away from personnel, flammables, or equipment. • Torch must be purged prior to lighting to ensure flow of oxygen and fuel gas. <p>B. Torch Valves</p> <p>Ensure torch valves are open when changing or adjusting pressure on regulators. Do not exceed pressure authorized for welding or cutting.</p> <p>C. Lighters</p> <p>Use only a standard friction lighter to ignite all fuel gas equipment.</p>
--	---

Rule Updated Date

July 2, 2013

[^Top](#)

79.18.1: Flashback Arrestors

<p>79.18.1</p>	<p>Flashback Arrestors</p> <p>Ensure proper approved torch mounted flashback arrestors are installed at the torch handle.</p> <p>If a flashback occurs:</p>
----------------	--

	<ul style="list-style-type: none">• Immediately shutoff the oxygen valve on the torch handle if welding, or the cutting attachment if cutting.• Determine the cause and correct, in addition to replacing the flashback arrestors or sinter filter before resuming operations. Built-in flashback arrestors have a replaceable sinter filter. <p>Flashback arrestors must be replaced if they become clogged and severely restrict gas flow.</p>
--	---

Rule Updated Date

July 2, 2013

[^Top](#)

79.19: Use of Natural Gas

79.19	Use of Natural Gas When equipped with heads designed for use with natural gas, a standard torch may be used for cutting and heating. Do not use natural gas for welding.
--------------	---

Rule Updated Date

July 2, 2013

[^Top](#)

79.20: Electrical Welding

79.20 Electrical Welding

Rule Updated Date

July 2, 2013

[^Top](#)

79.20.1: Maintenance and Repair

79.20.1	Maintenance and Repair Only a qualified person may make repairs or adjustments to electrical welding equipment. EXCEPTION: Welders may make routine operating adjustments.
----------------	--

Rule Updated Date

July 2, 2013

[^Top](#)

79.20.2: Cable Precautions

79.20.2	Cable Precautions Make sure electrode and ground cables are insulated throughout the entire length. Do not allow welding cable or electrode holder to contact water.
----------------	---

Rule Updated Date

July 2, 2013

[^Top](#)

79.20.3: Cables

79.20.3 <i>Ref. SRM Section H</i>	Cables Use only approved cable connections. Cables must be in continuous lengths without splices or taps. To prevent possible electrical shock or fire hazard, ensure ground and electrode cable size is correct. Comply with Lockout / Tagout Procedures when repairing cables or cable ends.
---	--

Rule Updated Date

July 2, 2013

[^Top](#)

79.20.4: Portable Welding Machines

79.20.4	<p>Portable Welding Machines</p> <p>Portable welding machines must be properly grounded.</p> <p>Set disconnect switch to the OFF position before plugging or unplugging welding machines.</p>
---------	--

Rule Updated Date

July 2, 2013

[^Top](#)

79.20.5: Grounding Electrical Arc Welding

79.20.5	<p>Grounding Electrical Arc Welding</p> <p>Fixed electrical welding equipment must be permanently grounded on the service side to the ground system.</p> <p>When performing electrical arc welding on machinery or equipment of any kind, apply the ground cable to the particular part or piece of machinery or equipment being welded and as near as possible to the point being welded.</p> <p>Do not permanently bond welding ground lead to any:</p> <ul style="list-style-type: none">• Rail.• Building steel. <p style="text-align: center;">or</p> <ul style="list-style-type: none">• Other structure. <p>Note: Ground cable clamps must provide good mechanical and electrical contacts with enough carrying capacity to handle welding current without undue heating.</p>
---------	--

Rule Updated Date

July 2, 2013

[^Top](#)

79.20.6: Protect from Electrical Shock and Moisture

79.20.6	<p>Protect from Electrical Shock and Moisture</p> <p>The electrode and work (or ground) circuits are energized when the welder is on. To protect yourself from possible electrical shock:</p> <ul style="list-style-type: none">• Do not permit contact between energized parts of the circuits and exposed skin or wet clothing.• Wear approved welding gloves that are dry and free of defects.• Insulate yourself from the work and ground by using dry insulation when wet conditions are present.• Maintain electrode holder, work clamp, welding cable and welding machine in good, safe operating condition.• Do not loop or coil electrode cables around the body.• During inclement weather, electrical welding equipment must be properly protected from moisture. <p>When using the welding machine as a power source for mechanized welding, the above precautions also apply for the welding wire, wire reel, welding head or nozzle.</p>
---------	--

Rule Updated Date

July 2, 2013

[^Top](#)

79.20.7: Electrodes / Electrode Holder

79.20.7	<p>Electrodes / Electrode Holder</p> <p>Electrode safety:</p> <ul style="list-style-type: none">• When not welding, ensure no part of the electrode circuit contacts the work or ground. Accidental contact can result in electrical shock, or cause over-heating and result in fire.• Electrodes must be removed from holder when not in use.• Electrode holders and wire feeder guns shall be placed or protected so they cannot make electrical contact with employees or conducting objects.• If electrode holder is overheating it is usually due to:<ul style="list-style-type: none">• Improper amperage rating.
---------	---

	<ul style="list-style-type: none"> • Loose connections. <p style="text-align: center;">or</p> <ul style="list-style-type: none"> • Dirty contacts with electrode. <p>Electrodes and welding wire must be stored where they can be kept free of moisture.</p>
--	--

Rule Updated Date

July 2, 2013

[^Top](#)

79.20.8: Polarity Switch

79.20.8	<p>Polarity Switch</p> <p>Do not adjust the polarity switch while welder is in operation. Doing so could result in arcing and damage to the switch.</p>
----------------	--

Rule Updated Date

July 2, 2013

[^Top](#)

79.20.9: Thermite Welding

79.20.9	<p>Thermite Welding</p> <p>Only authorized employees are permitted to perform thermite welding. During the thermite welding process:</p> <ul style="list-style-type: none"> • Do not use wet crucible molds or thermite oxide charge to make a weld. • Do not make thermite welds during rain, snow, or with heavy mist in the air. • Wear goggles and face shield while making the pour. One form of eye protection must have a number 5 shade lens or greater. • Employees within 15 feet of the pour must wear a face shield with safety glasses at all times.
<p><i>Ref.</i> <i>Welding Instructions</i></p>	

<i>Rule(s)</i> <i>101</i> <i>110</i> <i>111</i>	<ul style="list-style-type: none">• Dust goggles or face shield with safety glasses must be worn when removing the mold and cleaning the weld.• Protect yourself from hot metal fragments and sand.• Do not dump hot slag on wet soil, snow or throw in water.• Do not dump hot slag where it could be stepped on or could start vegetation on fire.• Waste slag must be properly disposed of by burying.
--	---

Rule Updated Date

July 2, 2013

[^Top](#)

[Union Pacific Rules](#)

Safety Rules

80.0: WALKING/WORKING SURFACES

- [80.0: WALKING/WORKING SURFACES](#)
- [80.1: Avoiding Slips, Trips, and Falls](#)
- [80.2: Precautions Against Slips, Trips, and Falls](#)
- [80.3: Stairs](#)
- [80.4: Look Both Directions](#)
- [80.5: Jumping](#)
- [80.6: Working at Night or Low Light Level](#)
- [80.7: Conveyors](#)
- [80.8: Safe Distance from Edge](#)
- [80.9: Turntables](#)
- [80.10: Overhead Hazards](#)
- [80.11: Ladders](#)
- [80.11.1: Inspection](#)
- [80.11.2: Placement](#)
- [80.11.3: Ascending or Descending](#)
- [80.11.4: Near Doors and Aisles](#)
- [80.11.5: Climbing with Tools/Material](#)
- [80.12: Platforms](#)
- [80.13: Sectional Scaffolding](#)
- [80.14: Fall Protection](#)

80.0: WALKING/WORKING SURFACES

80.0 WALKING/WORKING SURFACES

Rule Updated Date

July 2, 2013

[^Top](#)

80.1: Avoiding Slips, Trips, and Falls

<p>80.1</p> <p><i>Ref. Rule(s)</i> 1.19 1.24</p>	<p>Avoiding Slips, Trips, and Falls</p> <p>Observe safety practices that eliminate slips, trips, and falls by:</p> <ul style="list-style-type: none"> • Performing work to avoid creating hazards. • Maintaining good housekeeping. • Cleaning up spills. • Erecting barricades, signs, or cones where appropriate. • Keeping aisles, stairways, and walkways free of all obstructions.
---	---

Rule Updated Date

July 2, 2013

[^Top](#)

80.2: Precautions Against Slips, Trips, and Falls

<p>80.2</p> <p><i>Ref. Rule(s)</i> 2.21</p>	<p>Precautions Against Slips, Trips, and Falls</p> <p>Be alert to underfoot conditions and take precautions to avoid slipping on:</p> <ul style="list-style-type: none"> • Slick surfaces such as recently washed, waxed floors, oil, grease or soap on the walkway. • Snow, ice, wet spots or other hazards caused by inclement weather. Use appropriate footwear and accessories. Spread sand/salt mixture (as appropriate) on ice before proceeding when icy conditions exist. <p>When walking keep your eyes on the pathway. If hazardous underfoot conditions exist:</p> <ul style="list-style-type: none"> • Keep your hands out of pockets for balance. • Take short, deliberate steps with toes pointed outward. • When stepping over objects, such as rails, be sure your front foot is flat before moving your rear foot. <p>Employees are prohibited from running except when necessary to prevent injury to themselves or others.</p> <p>Cellular phones and other electronic devices must not be used while walking.</p>
--	---

Rule Updated Date

July 2, 2013

[^Top](#)

80.3: Stairs

80.3	Stairs Do not run up or down stairs. Do not ascend or descend stairways with hands in pockets and use the handrail where provided.
-------------	--

Rule Updated Date

July 2, 2013

[^Top](#)

80.4: Look Both Directions

80.4	Look Both Directions Look in both directions and know the path is clear when walking through doorways or going around corners or obstructions.
-------------	--

Rule Updated Date

July 2, 2013

[^Top](#)

80.5: Jumping

80.5	Jumping Do not jump from equipment or structures such as docks, trucks, rail cars, platforms, etc., or across ditches, pits, manholes or other openings.
-------------	--

Rule Updated Date

July 2, 2013

[^Top](#)

80.6: Working at Night or Low Light Level

80.6	<p>Working at Night or Low Light Level</p> <p>Employees must carry a light, or use additional lighting, when working at night or in reduced lighting. Exercise care to avoid hazards caused by shadows resulting from the use of lights.</p> <p>Specific lighting requirements for:</p> <ul style="list-style-type: none">• Remote Control Operator - Hands free light. (Lantern may be used if hands free light fails or as an auxiliary light).• Trainmen – Lantern• Engineers - Lantern, flashlight, and/or hands free light. <p>Trainmen may use a hands free light in addition to a lantern.</p>
-------------	--

Rule Updated Date

October 1, 2014

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

80.7: Conveyors

80.7	<p>Conveyors</p> <p>Do not ride on or step across conveyors.</p>
-------------	---

Rule Updated Date

July 2, 2013

[^Top](#)

80.8: Safe Distance from Edge

80.8	Safe Distance from Edge Keep a safe distance from the edge of pits, turntables, platforms or trenches. Exercise caution when working on or near steep slopes.
------	---

Rule Updated Date

July 2, 2013

[^Top](#)

80.9: Turntables

80.9	Turntables Do not get on or off moving turntables or transfer tables.
------	---

Rule Updated Date

July 2, 2013

[^Top](#)

80.10: Overhead Hazards

80.10	Overhead Hazards Avoid overhead hazards and do not work, walk or stand under workmen on ladders, platforms or scaffolds from which objects could fall. If required to work under overhead hazards, wear the proper protective equipment (e.g., hard hats).
-------	--

Rule Updated Date

July 2, 2013

[^Top](#)

80.11: Ladders

80.11	<p>Ladders</p> <p>Use only single person ladders which are rated 1A or 1AA or have been approved by the Safety Department. Standing on boxes, barrels, chairs, handrails or other improvised supports is prohibited.</p> <p>Ladders or specially designed platforms are required to service, maintain or repair elevated locations on locomotives.</p> <p>Metal/Wooden Ladders</p> <p>Do not use metal ladders or scaffolds when working on or near energized electrical wires. Wooden ladders must not be painted.</p> <p>Extension Ladders</p> <p>Assemble and carefully raise to ensure guides and hooks are properly engaged. Use the ladder's rope to raise and lower the extension and keep hands and fingers clear of the moving portion.</p> <p>Step Ladders</p> <p>A step ladder must not be used unless it is fully opened and the spreaders properly set. Step ladders more than 10 feet high must not be used unless held and steadied by another individual. Standing on the top step, platform or those parts of the ladder labeled "NO STEP" is prohibited. Stepladders that are two sided and can accommodate two people at one time must have a minimum total capacity rating of 500 pounds.</p> <p><i>(Note: All ladders and portable steps must be properly stored.)</i></p>
--------------	---

Rule Updated Date

July 2, 2013

[^Top](#)

80.11.1: Inspection

80.11.1	<p>Inspection</p> <p>Before a ladder, scaffold, platform or elevated board is used, check to ensure it has been:</p> <ul style="list-style-type: none">• Securely placed and is capable of supporting the load.
----------------	--

- Inspected for broken or missing steps, rungs, cleats, broken side rails or other defects.

Do not use a defective ladder. Defective ladders must be removed from service and tagged, "OUT OF SERVICE."

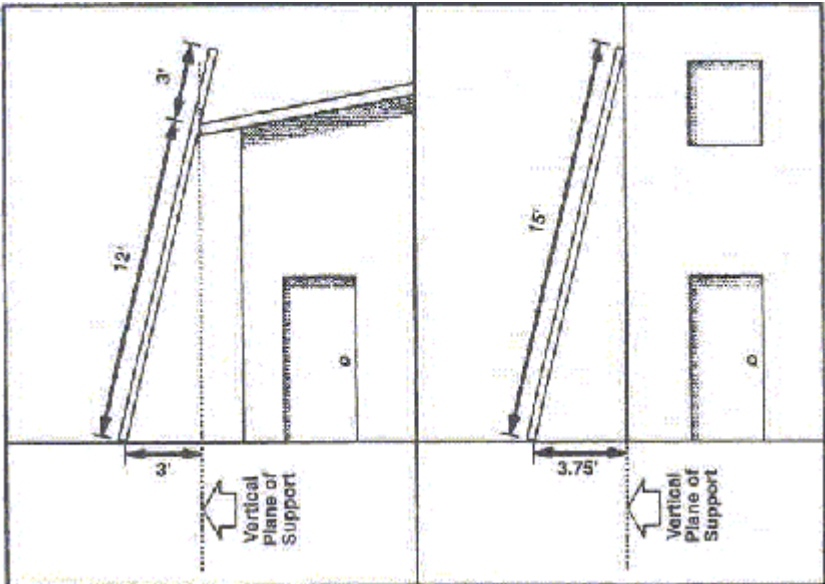
Before using a portable ladder, ensure it is equipped with spikes or non-slip feet suitable for the surface which it will be used. Portable ladders used in areas where they could contact exposed energized parts must have nonconductive side rails.

Rule Updated Date

July 2, 2013

[^Top](#)

80.11.2: Placement

<p>80.11.2</p>	<p>Placement</p> <p>Place a straight ladder so that the horizontal distance from the base to the vertical plane of the support is approximately one-fourth the ladder length between the supports. When it is required to exit the top of the ladder, the ladder side rails must extend at least three feet above the top landing, eaves, gutter or roof. Place ladder legs on firm footing and secure against movement. Do not lean a ladder against an unstable object or place on a box, barrel, block or other unstable base for additional height. Ladders must be secured to prevent movement. Do not use a ladder in a horizontal position as a runway or scaffold.</p> 
-----------------------	--

Rule Updated Date

July 2, 2013

[^Top](#)

80.11.3: Ascending or Descending

80.11.3	Ascending or Descending Face ladder and use both hands when ascending or descending maintaining three point contact.
----------------	--

Rule Updated Date

July 2, 2013

[^Top](#)

80.11.4: Near Doors and Aisles

80.11.4	Near Doors and Aisles Ladders used near a door, aisle, pathway or roadway must be secured or guarded.
----------------	---

Rule Updated Date

July 2, 2013

[^Top](#)

80.11.5: Climbing with Tools/Material

80.11.5	Climbing with Tools/Material Do not climb ladders with tools or materials in your hands; tools must be carried in an approved tool belt or use a hand line. Tools or materials must not be placed on a scaffold or platform in such a manner that they may fall or be knocked off.
----------------	--

Rule Updated Date

July 2, 2013

[^Top](#)

80.12: Platforms

80.12	<p>Platforms</p> <p>Platforms more than 6 feet above the ground or floor in construction operations or 4 feet in General Industry operations must have:</p> <ul style="list-style-type: none">• Guard rails with a nominal height of 42 inches.• Mid-rail at one half the height distance of the top rail.• Toe board of 4 inches nominal height on all open sides and ends. <p>Exception: In California the above applies to platforms 30 inches or more above the ground or floor.</p>
--------------	---

Rule Updated Date

July 2, 2013

[^Top](#)

80.13: Sectional Scaffolding

80.13	<p>Sectional Scaffolding</p> <p>Sectional scaffolding must be erected in accordance with the manufacturer's instructions. Scaffolding equipped with wheels must be equipped with wheel locks and be locked before work is performed.</p> <p>Outriggers and toe boards, where provided, must be in working condition and protected from damage. Scaffolding legs must be placed on firm footing and secured against movement.</p>
--------------	---

Rule Updated Date

July 2, 2013

[^Top](#)

80.14: Fall Protection

<p>80.14</p> <p><i>Ref. SRM Section J</i></p> <p><i>Rule(s) 1.21</i></p>	<p>Fall Protection</p> <p>Do not work on bridges, elevated structures or roofs of cars and locomotives without proper authority. Comply with appropriate departmental instructions and the Fall Protection Policy.</p>
---	---

Rule Updated Date

July 2, 2013

[^Top](#)

Union Pacific Rules

Safety Rules

81.0: WORKING AROUND TRACKS OR BEING ON EQUIPMENT

- [81.0: Working Around Tracks or Being on Equipment](#)
- [81.1: Precautions Around Tracks and Moving Equipment](#)
- [81.1.1: Precautions Near Passing Trains or Equipment](#)
- [81.1.2: Signals for Movement](#)
- [81.1.3: Warning Traffic at Grade Crossings](#)
- [81.2: Crossing Tracks](#)
- [81.2.1: Walking Near or Crossing Track](#)
- [81.2.2: Sufficient Distance](#)
- [81.3: Safety Appliances](#)
- [81.4: Getting On or Off Equipment](#)
- [81.4.1: Standing Equipment](#)
- [81.4.2: Moving Equipment](#)
- [81.4.3: Loading and Unloading Luggage and Supplies](#)
- [81.5: Crossing Through or Fouling Equipment](#)
- [81.5.1: Crossing Through Standing Equipment](#)
- [81.5.2: Stepping from One Car to Another](#)
- [81.5.3: Moving Cars](#)
- [81.5.4: Understanding Between Crew Members Before Crossing Through or Fouling Equipment](#)
- [81.5.5: Trainline Power Cables](#)
- [81.6: Coupler and End Sill](#)
- [81.6.1: Placing Feet](#)
- [81.7: Riding Equipment](#)
- [81.7.1: Unexpected Movement](#)
- [81.7.2: Shiftable Lading](#)
- [81.7.3: Business Cars or Passenger Equipment](#)
- [81.7.4: Riding Locomotive Cranes and Work Equipment](#)
- [81.8: Close Clearances](#)
- [81.8.1: Avoiding Fouling Hazards](#)
- [81.8.2: Maintain Lookout](#)
- [81.8.3: Impaired Clearances](#)
- [81.9: Cars in Motion](#)
- [81.10: Moving Equipment in Locomotive, Car, or Maintenance of Way Repair Facilities](#)
- [81.10.1: Before Moving Equipment](#)
- [81.10.2: Using Mobile Equipment](#)

- [81.10.3: Using Locomotive](#)
- [81.10.4: One Person Operation](#)
- [81.11: Hand Brake](#)
- [81.11.1: Releasing Hand Brake](#)
- [81.11.2: Difficult or Defective Hand Brake](#)
- [81.11.3: Brake Sticks](#)
- [81.12: Wheel Chocks / Skate](#)
- [81.13: Coupling and Uncoupling Equipment](#)
- [81.13.1: Going between Cars](#)
- [81.13.2: Coupler Adjustment](#)
- [81.13.3: Using a Knuckle-Mate](#)
- [81.13.4: Using Coupler Alignment Strap](#)
- [81.13.5: Replacing Knuckle](#)
- [81.13.6: Opening Angle Cock](#)
- [81.13.7: Coupling and Uncoupling Hoses](#)
- [81.14: Dump Cars](#)
- [81.15: Car Doors](#)
- [81.16: Load Dividers](#)
- [81.17: Cars Being Loaded or Unloaded](#)
- [81.18: Loading Roadway Equipment](#)
- [81.19: Air Brake Rigging](#)
- [81.20: Moving In and Out of Equipment or On Equipment](#)
- [81.21: Locomotives, Working On or About](#)
- [81.21.1: General Requirements](#)
- [81.21.2: Restrictions](#)
- [81.21.3: Locomotive Cab Floor](#)
- [81.21.4: Locomotive Electrical Components](#)
- [81.22: Securing Supply Apparatus](#)
- [81.23: Lockout Protection Required](#)

81.0: Working Around Tracks or Being on Equipment

81.0 WORKING AROUND TRACKS OR BEING ON EQUIPMENT

Rule Updated Date

July 2, 2013

[^Top](#)

81.1: Precautions Around Tracks and Moving Equipment

81.1 Precautions Around Tracks and Moving Equipment
--

Rule Updated Date

July 2, 2013

[^Top](#)

81.1.1: Precautions Near Passing Trains or Equipment

<p>81.1.1 <i>Ref. Rule(s)</i> <i>SSI Item 12</i></p>	<p>Precautions Near Passing Trains or Equipment</p> <p>When near passing trains or equipment:</p> <ul style="list-style-type: none">• Move away from the track to avoid being struck by car doors, protruding or falling articles.• Stand clear of all tracks when trains are approaching or passing in either direction. <p>Do not:</p> <ul style="list-style-type: none">• Stand on one track while trains are passing on an adjacent track.• Allow anyone next to or between equipment while a train or equipment is closely passing on the adjacent track.• Rely on others for notification of an approaching train, engine or other equipment unless that person's duties include providing warnings. <p>Engineering employees are governed by Chief Engineer Bulletins and other M of W rules when working on adjacent tracks.</p>
---	--

Rule Updated Date

July 2, 2013

[^Top](#)

81.1.2: Signals for Movement

81.1.2	Signals for Movement After giving a signal to stop the movement, keep clear until the equipment has stopped. Do not give a signal to move engines or cars if anyone is foul of movement.
---------------	--

Rule Updated Date

July 2, 2013

[^Top](#)

81.1.3: Warning Traffic at Grade Crossings

81.1.3	Warning Traffic at Grade Crossings When required to be on the ground at a grade crossing to warn traffic of an approaching movement, the employee must be in a safe location to avoid injury. Do not stand in traffic lanes.
---------------	--

Rule Updated Date

July 2, 2013

[^Top](#)

81.2: Crossing Tracks

81.2 Crossing Tracks

Rule Updated Date

July 2, 2013

[^Top](#)

81.2.1: Walking Near or Crossing Track

81.2.1	Walking Near or Crossing Tracks
---------------	--

	<p>When assigned duties require standing, walking, or working between or near tracks, keep a careful lookout in both directions for trains, locomotives, cars or other moving equipment.</p> <p>Expect movement at any time, on any track, in either direction. Do not rely on hearing the approach of a train or equipment.</p> <p>Supervisors or others in charge of employees working on or about the track must require employees to be alert, watchful, and to keep out of danger.</p> <p>Employees must not stand, sit, walk fouling of or walk between rails of any track unless required by assigned duties.</p> <p>Stop before fouling or crossing track(s) and:</p> <ul style="list-style-type: none"> • Look in both directions. • Ensure no movement is closely approaching. • Look for conditions that could interfere with footing. <p>When walking near or crossing tracks:</p> <ul style="list-style-type: none"> • Walk straight across tracks. • Avoid conditions that could interfere with footing. • Step over rails, frogs, switches, guardrails, etc.
--	---

Rule Updated Date

May 2, 2016

System Special Instructions

Effective Date: May 2, 2016

[^Top](#)

81.2.2: Sufficient Distance

<p>81.2.2</p> <p><i>Ref. Rule(s)</i></p> <p>5.13</p> <p>81.5.4</p> <p>81.23</p>	<p>Sufficient Distance</p> <p>Unless authorized, employees must not:</p> <ul style="list-style-type: none"> • Cross or step foul of tracks closely in front of or behind moving equipment. • Cross tracks unless there is at least 20 feet between the employee and the equipment. • Go between standing equipment if the separation is less than 100 feet.
--	---

	<p>When it is known no movement will occur and sufficient distance is maintained to avoid injury from cars with moveable center sills, employees may go:</p> <ul style="list-style-type: none"> • Between or around the equipment in less than the specified distance provided employee is protected by Rule 5.13 or 81.23. • Around the end of equipment in less than 20 feet when the equipment is protected by Rule 81.5.4.
--	--

Rule Updated Date

July 2, 2013

[^Top](#)

81.3: Safety Appliances

81.3	<p>Safety Appliances</p> <p>Visually inspect safety appliances on equipment for defects such as loose, damaged or missing hand holds, ladders, grab irons, sill steps or crossover platforms.</p> <p>Do not use defective safety appliances. Warn others and report any defects to the yardmaster, train dispatcher or supervisor.</p> <p>Do not get on equipment that is not equipped with safety devices.</p>
------	--

Rule Updated Date

July 2, 2013

[^Top](#)

81.4: Getting On or Off Equipment

81.4	<p>Getting On or Off Equipment</p> <p>Do not get on or off equipment except when required in the performance of duty, and only when it can be done safely.</p>
------	---

Rule Updated Date

July 2, 2013

[^Top](#)

81.4.1: Standing Equipment

81.4.1	<p>Standing Equipment</p> <p>The following precautions must be taken when getting on or off standing equipment:</p> <ul style="list-style-type: none">• Always use the provided appliances (steps, ladders and hand holds) for getting on and off equipment. Be aware of and take necessary precautions to prevent injury from the build up of snow, ice, water, mud, grease and oil on footwear, sill steps and side ladders.• Keep hands free of all objects that may hinder a secure handhold. Always maintain a secure grip on the handholds on engine platforms or while using appliances on the equipment. Be prepared for sudden movement.• Face the equipment and use the side ladder or steps, maintaining three-point contact. Feet must be securely placed.• Pause at bottom step maintaining 4 point contact and observe surface conditions of the ground and activity in the area before getting off. Guard against injury by looking out for unsafe footing, obstructions or equipment moving on other tracks. Perform a 180 degree look before stepping off equipment.• When getting off, retain a grip with both hands on the hand hold until both feet are firmly placed on the ground or other support and pause with 4 point contact before releasing your grip on the hand hold.• When practical, get on or off equipment on the side away from main tracks or close clearances.• When practical, get off of equipment on the same side that you got on the equipment.• Use extreme care during wet, muddy, snowy or icy conditions and at night in unlit areas.
--------	--

Rule Updated Date

July 2, 2013

[^Top](#)

81.4.2: Moving Equipment

81.4.2	Moving Equipment
--------	-------------------------

	<p>Employees are prohibited from getting on or off moving equipment unless necessary to prevent injury to themselves or others.</p> <p>If necessary to get on or off moving equipment, the following precautions must also be taken:</p> <ul style="list-style-type: none"> • When getting on, stand clear of equipment so as not to be struck. • When boarding boxcars or similar equipment, grasp the leading grab iron with leading hand in direction of movement, then step up with the trailing foot as you grasp trailing grab iron, putting trailing foot in trailing corner of step letting movement lift you off the ground. • When getting off, do not step between the rails, on tie ends or immediately ahead of switches. Make sure you are clear of the engine or car. The trailing foot (foot opposite from the direction of movement) must strike the ground first, directing you away from the equipment.
--	---

Rule Updated Date

July 2, 2013

[^Top](#)

81.4.3: Loading and Unloading Luggage and Supplies

<p>81.4.3</p>	<p>Loading and Unloading Luggage and Supplies</p> <p>Use the following precautions when loading or unloading grips, luggage, ice chests, and other supplies on equipment:</p> <ul style="list-style-type: none"> • Load or unload from the side of equipment, not the front. • Do not throw or swing luggage or materials onto a locomotive from the ground. • Board or detrain carrying luggage with shoulder straps on your shoulder. Load or unload materials without straps before or after getting on or off. • Maintain firm footing and use proper body mechanics, lifting techniques, and 3 point contact. • If necessary, pass items to a co-worker.
---------------	---

Rule Updated Date

July 2, 2013

[^Top](#)

81.5: Crossing Through or Fouling Equipment

81.5 <i>Ref. Rule(s)</i> 81.5.4 5.13	Crossing Through or Fouling Equipment Do not get on, cross through, crawl, sit or lie under cars, unless duties require. When duties require, assure that all movement has stopped, protection has been provided and no movement will occur.
--	--

Rule Updated Date

July 2, 2013

[^Top](#)

81.5.1: Crossing Through Standing Equipment

81.5.1 <i>Ref. Rule(s)</i> 81.6	Crossing Through Standing Equipment When duties require crossing through a standing train or cut of cars, proper protection against movement must be provided and employees must: <ul style="list-style-type: none"> • Choose equipment carefully, using cars with ends equipped with a crossover platform and hand holds, when available. • Keep hands free of objects that may hinder a secure handhold. • Be prepared for unexpected movement, maintaining a three-point contact while walking across the end of the car. <p>On equipment where crossover platforms and hand holds are not available, use end of car structural bracing to maintain three point contact, if safe to do so. If no structural bracing is available, do not cross through.</p> <p>A train or cut of cars made up of intermodal cars equipped with crossover platforms without handholds may be crossed through without three-point contact; taking short, deliberate steps.</p>
--	--

Rule Updated Date

July 2, 2013

[^Top](#)

81.5.2: Stepping from One Car to Another

81.5.2	Stepping from One Car to Another
---------------	---

	<p>Stepping from one car to another is permitted only if:</p> <ul style="list-style-type: none"> • Equipment is standing. • It can be done safely. • Proper protection against movement has been provided.
--	---

Rule Updated Date

July 2, 2013

[^Top](#)

81.5.3: Moving Cars

<p>81.5.3</p>	<p>Moving Cars</p> <p>Do not cross under, over, through or ride between moving cars.</p> <p>Some maintenance activities require movement from car to car. Equipment must be designed for movement such as:</p> <ul style="list-style-type: none"> • Rail loading and unloading. • Rail grinding. • Car top material handling. • Loading and unloading wheeled equipment from flatcars.
---------------	---

Rule Updated Date

July 2, 2013

[^Top](#)

81.5.4: Understanding Between Crew Members Before Crossing Through or Fouling Equipment

<p>81.5.4</p> <p><i>Ref. Rule(s)</i></p> <p>5.13</p> <p>7.2</p> <p>70.3</p>	<p>Understanding Between Crew Members Before Crossing Through or Fouling Equipment</p> <p>What is Red Zone:</p> <p>Anytime a Train, Engine or Yard employee is working within an area where there is the potential to be struck by moving equipment, crossing through equipment and/or fouling equipment.</p>
---	---

81.2.2
81.5
81.11.3
81.13
81.13.1

Note: This applies to TE&Y employees only. All other crafts will be governed by their department's rules.

When to Establish Red Zone:

Employees must establish protection before:

- Fouling equipment.
- Making adjustments to equipment.
- Crossing through cars.

Who Must Establish Red Zone Protection:

Employees must establish protection with each crew member prior to entering the Red Zone when equipment is:

- Coupled to an occupied engine, active remote control engine or other motive equipment.
- On the same track as another occupied engine or equipment coupled to an occupied engine.

Exceptions:

- Pulling pins.
- Primary RCO opens knuckles during humping operations or kicking cars. Movement must be stopped.

Note: Refer to Rule 81.2.2 if required to cross in front of equipment. Minimum distance of 20 feet required if no Red Zone has been established.

- Rule 5.13 is in effect.

How to Establish Red Zone Protection:

1. Request Red Zone:

Face to face: A job briefing must occur with all crewmembers present. The job ID or engine number and track to be fouled must then be announced over the radio.

or

Request over radio: Employee(s) requesting Red Zone must indicate the track to be fouled. Single employee RCO must announce job id and track to be fouled over the radio.

2. Actions Required Before Entering the Red Zone:

A. When equipment is attached to an occupied locomotive(s), the engineer or primary control operator must:

- Allow movement to stop and slack to adjust.
- Fully apply independent brakes and apply train airbrakes if necessary. (Brakes must not be released until all employees are clear of the Red Zone.)
- Center the reverser / direction selector.

	<ul style="list-style-type: none">• Announce over the radio confirming job or locomotive id, red zone, set and centered condition, and name of the track to be protected. (i.e. "UP 2246, set and centered, track 6, over.") <p>B. When no occupied locomotive is on the track:</p> <ul style="list-style-type: none">• Announce job ID and track to be fouled over the radio. <p>Performing Work in Red Zones in a Yard:</p> <p>Employees performing work in the Red Zone within a Yard must:</p> <ol style="list-style-type: none">1. First communicate with job(s) near tracks to be fouled, and if necessary, contact yardmaster or employee in charge to ascertain which jobs are working. Do not establish a Red Zone if:<ul style="list-style-type: none">• Cars will be kicked, shoved or pulled from the track or tracks to be fouled.2. Provide additional protection when necessary to make a coupler adjustment (81.13.2) by:<ul style="list-style-type: none">• Waiting for the slack to adjust and know that all movement is stopped.• Tying a sufficient number of handbrakes, with a minimum of 2, on the end of the equipment closest to the employee working when it is not coupled to an occupied locomotive where a "set and centered" can be established.• If unable to secure the unattached portion, pull the equipment onto the lead to perform the work or have another employee be a lookout until work is completed. <p>Releasing Red Zone Protection:</p> <p>Crew Member on Ground:</p> <ul style="list-style-type: none">• Each employee who established Red Zone Protection must announce by radio when they are clear of the red zone before movement can be made. <p>Crew Member at Controls:</p> <ul style="list-style-type: none">• Engineer or Primary RCO must confirm release of the Red Zone over the radio from all employees who requested Red Zone.
--	---

Rule Updated Date

May 2, 2016

System Special Instructions

Effective Date: May 2, 2016

[^Top](#)

81.5.5: Trainline Power Cables

81.5.5	Trainline Power Cables Before going between equipment to work on or make adjustments to trains equipped with electrical power cables between equipment, employees must ensure that electrical power to these cables is off unless cable is clear of the area where the employee will be working.
--------	--

Rule Updated Date

July 2, 2013

[^Top](#)

81.6: Coupler and End Sill

81.6	Coupler and End Sill Do not: <ul style="list-style-type: none">• Place any part of the body on or between coupler and car end sill.• Reach over drawbars to open or close angle cocks. When near cars equipped with movable center sills take precautions to avoid injury in case of movement, even though the car is standing.
------	---

Rule Updated Date

May 2, 2016

System Special Instructions

Effective Date: May 2, 2016

[^Top](#)

81.6.1: Placing Feet

81.6.1	Placing Feet Do not place feet on knuckles, uncoupling lever, drawbar assembly or any cushioning drawbar device.
--------	--

Rule Updated Date

July 2, 2013

[^Top](#)

81.7: Riding Equipment

81.7	<p>Riding Equipment</p> <p>1. Determine if You Should Ride</p> <p>Ride cars or equipment only when duties require and after determining you can do so safely.</p> <p>When determining whether cars or equipment should be ridden, employees must consider:</p> <ul style="list-style-type: none">• Alternatives such as repositioning locomotives to pull instead of shoving cars, repositioning of crew members or utilizing other employees to complete the task without having to ride moving equipment.• Weather conditions that may cause unsafe conditions to ride, e.g. ice storms.• Designs and configuration of cars that may make them unsuitable to ride.• Selecting or repositioning other cars to ride.• Your physical limitations.• Potential slack action.• Applicable Operating and Safety Rules. <p>2. Do Not Ride</p> <p>Employees must not ride:</p> <ul style="list-style-type: none">• On cars that are rolling free, except where a "Gravity Switch" has been authorized by a "Superintendent Bulletin" and then only when movement can be controlled by a hand brake located on the trailing end of the trailing car in the direction of movement (See Rule 7.7.1 Gravity Switch).• On the end of a moving car – except as provided in this rule.• While sitting on walkways, steps, or platforms of locomotives.• On equipment where track conditions can not be clearly observed because of debris, snow, ice, water, grain, sand or mud.• On sill step of cars (stirrup beneath ladder), engine steps, caboose steps or vestibule steps of cars when moving over a street or highway crossing, or yard access crossing.• On side ladders leading to engine cabs on full body type locomotives.• On tank cars if it can possibly be avoided and never on the side ladder providing access to top of tank car.• Inside equipment (i.e. hopper cars, gondola cars, etc.).
-------------	--

- On any part of coupler apparatus, center sill, side sill, or end sill.
- In a location where you may be struck or pinched by moving lading or equipment.

3. How to Ride

When riding on equipment employees must:

- Maintain three-point contact with hands and feet on fixed platforms and/or grab irons designed for this purpose. Hand brake may not be used as one of the required points of contact.
- Look in the direction of movement.
- Ride on the side of the car, the vertical plane of the end of the car must not be broken; except:
 - May ride on the brake or end platform on the trailing end of the last car in direction of movement.
 - When allowed to ride on the deck of a flat car.
 - May ride on end platform of ARMN, JRSX cars equipped with an end platform and hand rails. The platform is located on the "A" end of the car.
- Only ride on cars equipped with two vertical hand holds or horizontal hand hold positioned to allow an erect body position.

4. Where to Ride

When riding on equipment employees must be positioned:

- When possible, while making a pulling movement, on the brake or end platform on the trailing end of the last car in direction of movement.
- On the side of leading end of equipment in direction of movement.
- On deck of empty flat car or on a TOFC/COFC flat car only if you can mount the car safely and kneel or sit as near as possible to the center of the car until the car has come to a complete stop. If equipped with two vertical hand holds or horizontal hand hold positioned to allow an erect body position may ride on side of car.
- When riding empty bulkhead or centerbeam flat car, employee may ride on the deck behind the bulkhead in the direction of movement and maintain three point contact while facing the direction of movement.

Riding tank cars:

Employees may only ride a tank car when the tank car is the first car of a shoving movement or the last car in a cut of cars being handled.

Employees must maintain three or four-point contact and:

- When shoving:
 - Be on leading end of leading car.
 - Be positioned to ride behind the safety bar outside the gage of the track. On cars equipped with two vertical handholds or if unable to ride behind the safety bar, employee may ride on the outer portion of the crossover platform facing direction of movement, positioned outside the gauge of the track.

	<ul style="list-style-type: none"> • Place both feet on the car to provide secure contact with the car. If unable to place both feet in a secure position, employee must not ride the car. • When pulling: <ul style="list-style-type: none"> • Be on the trailing end platform of the last car, facing the direction of movement. • Place both feet on the end platform to provide secure contact with the car.
--	---

Rule Updated Date

May 2, 2016

System Special Instructions

Effective Date: May 2, 2016

[^Top](#)

81.7.1: Unexpected Movement

81.7.1	<p>Unexpected Movement</p> <p>When duties require moving around, inside, or on equipment, anticipate and protect yourself from sudden stops, starts, slack action or other movements and:</p> <ul style="list-style-type: none"> • Be adequately braced. • Maintain a firm hand hold. • Sit down quickly and safely. • Unless duties require otherwise, remain seated when stopping, entering and departing terminals. • Stay out of cars being or about to be switched and notify all occupants before switching cars. <p>When above normal vertical or lateral motion is detected on a locomotive, the train dispatcher must be notified. Engineer must reduce speed to a level that provides a normal ride.</p>
---------------	--

Rule Updated Date

July 2, 2013

[^Top](#)

81.7.2: Shiftable Lading

81.7.2	Shiftable Lading
---------------	-------------------------

	<p>Do not:</p> <ul style="list-style-type: none"> • Stand or place any part of body on or between the side or end of a car loaded with lumber, pipe or other lading that could shift. • Be in a position where you can be struck by drop ends that may fall inwards. • Hold on to the end post or stand near the end door on a gondola equipped with drop ends.
--	--

Rule Updated Date

July 2, 2013

[^Top](#)

81.7.3: Business Cars or Passenger Equipment

81.7.3	<p>Business Cars or Passenger Equipment</p> <p>Side and trap doors of vestibules must be kept closed while the train is in motion, except when attended by a crew member.</p> <p>When vestibules are in use at stations:</p> <ul style="list-style-type: none"> • Open them only on the side where passengers are received and discharged. • Place an end gate at the rear of the last car in a train if the car has a vestibule. • Use chain or crossbar if the car does not have a vestibule. <p>Trainmen must know that end gate or chain is in the proper position at the end of each car when making cuts between occupied passenger cars during switching operations.</p>
---------------	---

Rule Updated Date

July 2, 2013

[^Top](#)

81.7.4: Riding Locomotive Cranes and Work Equipment

81.7.4	<p>Riding Locomotive Cranes and Work Equipment</p> <p>Unless authorized, do not ride on cranes, ditchers, other machines or cars on which machines are mounted.</p>
---------------	--

When authorized to ride, do not go out on a ledge, running board or any other outside part of moving locomotive cranes or other roadway equipment. However, a designated ground man is permitted to ride on the locomotive crane footboard that is equipped with a standard riding cage under the following conditions:

- Maximum crane speed is 10 MPH.
- The crane will approach no closer than one car length from standing equipment.
- Riding is only allowed at the project site and as necessary to support bridge work. The limitations of the project site shall be as follows:
 - From the material staging area to the bridge, not to exceed 1,400 feet.
 - No more than 300 feet past either end of the bridge.
- Riding is not permitted through public road crossings.
- When riding on the leading end, the crane operator must have the rider in visual sight at all times.
- Riding is not permitted on the same end of the crane that cars are coupled to.

The footboard shall be large enough to completely and firmly support both feet of the rider. The rider must have three-point contact at all times.

- Footboard and riding cage must be inspected daily and repaired immediately if damaged.
- Cage must be removed when the locomotive crane is entrained.

Rule Updated Date

July 2, 2013

[^Top](#)

81.8: Close Clearances

81.8 Close Clearances

Rule Updated Date

July 2, 2013

[^Top](#)

81.8.1: Avoiding Fouling Hazards

<p>81.8.1</p> <p><i>Ref. Rule(s)</i> 7.1</p>	<p>Avoid Fouling Hazards</p> <p>Do not leave equipment standing where it will foul equipment on adjacent tracks or cause injury to employees riding on the side of a car or engine.</p> <p>On tracks where clearance point is indicated, leave equipment beyond the clearance point.</p> <p>If clearance point is not indicated or visible, determine clearance point by standing outside the rail of adjacent track and extending arm towards the equipment. When unable to touch equipment, leave the equipment at least an additional 50 feet into the track to ensure equipment is beyond the clearance point.</p> <p>Equipment may be left on a:</p> <ul style="list-style-type: none"> • Main track, fouling a siding track switch, when the switch is lined for the main track. • Siding, fouling a main track switch, when the switch is lined for the siding. • Yard switching lead, fouling a yard track switch, when the switch is lined for the yard switching lead. <p>or</p> <ul style="list-style-type: none"> • Industry track beyond the clearance point of the switch leading to the industry.
---	---

Rule Updated Date

July 2, 2013

[^Top](#)

81.8.2: Maintain Lookout

<p>81.8.2</p>	<p>Maintain Lookout</p> <p>Keep a careful lookout in both directions for trains, engines or cars on adjacent tracks. Look for other close clearances when duties require any part of the body to be extended beyond the side of a moving or standing engine or car.</p>
----------------------	--

Rule Updated Date

July 2, 2013

[^Top](#)

81.8.3: Impaired Clearances

<p>81.8.3</p>	<p>Impaired Clearances</p> <p>Do not ride on the side of a moving car, engine or other equipment:</p> <ul style="list-style-type: none"> • Next to a structure. • Through gates or doorways. • Into, out of, or within enclosed buildings. Before entering enclosed buildings, an employee must precede movement if safe to do so. Further movements must only be made on employee's signal. • Any time equipment on an adjacent track is foul of or appears to be foul of clearance point. • In a curve or through a turnout when there is less than 6 feet between the ends of ties of adjacent tracks and: <ul style="list-style-type: none"> • There are cars on the adjacent track in the curve or turnout. • If in doubt that the distance between the ends of the ties between the tracks is at least 6 feet. <div style="text-align: center;"> <p>The diagram shows two parallel tracks, labeled 'Trk. 1' on the left and 'Trk. 2' on the right. A box above the tracks is labeled 'Adjacent Tracks'. Between the tracks, there are two vertical lines representing ties. A horizontal double-headed arrow between the ends of these ties is labeled '6 ft', indicating the required clearance.</p> </div> <p>Do not position yourself or allow others to position themselves between a structure and moving car(s), engine(s) or other equipment when clearance is minimal.</p>
----------------------	---

Rule Updated Date

July 2, 2013

[^Top](#)

81.9: Cars in Motion

<p>81.9</p>	<p>Cars in Motion</p> <p>While cars are in motion, do not:</p> <ul style="list-style-type: none"> • Open or close freight car doors. • Perform repairs. • Remove hasps. • Break seals.
--------------------	---

Rule Updated Date

July 2, 2013

[^Top](#)

81.10: Moving Equipment in Locomotive, Car, or Maintenance of Way Repair Facilities

81.10 Moving Equipment in Locomotive, Car, or Maintenance of Way Repair Facilities

Rule Updated Date

July 2, 2013

[^Top](#)

81.10.1: Before Moving Equipment

81.10.1	Before Moving Equipment A job briefing will be conducted between all involved employees. This must include a thorough understanding of moves to be made and what hand signals or radio communication will be used before moving equipment and: <ul style="list-style-type: none">• Cars must be coupled or secured to the locomotive, car mover or equipment, unless repair facility car moving systems are designed for other operation.• Maximum speed must not exceed 5 mph.• If hand signals are used, and the person giving signals disappears from view, movement must be stopped. If radio communication is used, distance and direction must be specified.
----------------	--

Rule Updated Date

January 2, 2014

[^Top](#)

81.10.2: Using Mobile Equipment

81.10.2	Using Mobile Equipment
----------------	-------------------------------

	<p>When using Trackmobile, car mover or other work equipment as the primary mover:</p> <ul style="list-style-type: none"> • Inspect equipment for safety defects prior to movement. If defects are found that prevent safe movement, corrective action must be taken to prevent derailment or further damage. • The operator or groundman will notify affected employees, including others moving equipment, prior to movement. Equipment will be inspected for persons on, under or between before coupling. • When coupling to cars, the operator or groundman must observe that the coupler pin has dropped and stretch slack before movement. Equipment left standing must be properly secured. • Crossings will be cleared prior to movement. • A groundman must be in a position to protect movement when the cab end is not leading.
--	--

Rule Updated Date

July 2, 2013

[^Top](#)

81.10.3: Using Locomotive

<p>81.10.3 <i>Ref. Rule(s)</i> 31.8.7.1</p>	<p>Using Locomotive</p> <p>When a locomotive(s) is used the following applies:</p> <ul style="list-style-type: none"> • If operator is in the lead unit with the controlling cab facing the direction of movement, protection by a groundman is not required if operator can visually determine the move can be made safely. • If operator is not in the lead unit with the controlling cab facing the direction of movement, protection for the movement is required. A groundman must be positioned on the ground or ahead of movement to visually determine that movement can be made safely. • When a spotting operation involves movement of less than 10 feet, movement may be made without groundman ahead of the movement. • When making coupling, groundman must be on the ground when coupling is made. • After coupling, stretch the slack to ensure coupling was made. • After movement is complete, secure equipment per operating rules. Follow applicable shut-down policy.
--	---

Rule Updated Date

July 2, 2013

[^Top](#)

81.10.4: One Person Operation

<p>81.10.4</p> <p><i>Ref. Rule(s)</i> 32.2 31.8.7.1</p>	<p>One Person Operations</p> <p>One person operations may be made as follows:</p> <ol style="list-style-type: none">1. Ensure the area is protected in accordance with Rule 5.13, Blue Signal Protection for Workmen.2. Determine by visual inspection that no person is on, under or between the equipment. Confirm that no personnel or rolling equipment will enter track where move is to be made.3. Determine by visual inspection that other equipment or structures will not be struck, or insufficient clearances created, by moving locomotives or equipment.4. On locomotives, apply the independent brake and visually inspect to ensure brakes apply, then release hand brakes.5. Turn on headlight to the front and rear when possible.6. On locomotives, ring the bell before moving and during the entire movement.7. Sound the whistle prior to moving, when reversing direction of movement, when approaching crossing and when employees or others are seen within the area of movement.8. Operate the locomotive or controlling equipment facing the direction of movement whenever possible. Stop before coupling and then proceed to make coupling.9. After coupling to other equipment, stretch the slack to ensure coupling was made.10. Do not make movements farther than the distance inspected in steps 2 and 3 above, unless additional visual inspections are completed. <p>After movement is complete, secure all locomotives and/or equipment per operating rules. Follow applicable shut-down policy.</p>
--	---

Rule Updated Date

July 2, 2013

[^Top](#)

81.11: Hand Brake

<p>81.11</p> <p><i>Ref. Rule(s)</i> 81.11.3</p>	<p>Hand Brake</p> <p>Before operating hand brake inspect for defects. Use good body mechanics to prevent strains, sprains, etc. Maintain firm footing and hand hold to prevent slipping, falling or injuries.</p>
--	--

	<p>While operating hand brakes employees must not:</p> <ul style="list-style-type: none"> • Use end ladders to go up or down the car. • Brace any part of body against another car. • Place feet in wheel or on a hand brake lever or pawl. • Hold brake tension on moving car by hand without using a pawl and ratchet. • Place thumb inside wheel when applying or releasing wheel type brake. • Apply or release brake from ground while car is in motion. • Use unapproved material or device to apply or release brake. • Place both hands on brake wheel. <p>The following hand brakes must be operated from a position on the equipment:</p> <ul style="list-style-type: none"> • End-mounted brake. • Horizontal wheel (staff) hand brake. • Inward facing end mounted brake on TOFC/COFC and similar configured cars. <p>The following hand brakes may be operated from a position on the ground provided they are within easy reach and good body mechanics are maintained:</p> <ul style="list-style-type: none"> • Side-mounted brake. • End-mounted brake on TOFC/COFC and similarly configured cars.
--	---

Rule Updated Date

May 2, 2016

System Special Instructions

Effective Date: May 2, 2016

[^Top](#)

81.11.1: Releasing Hand Brake

81.11.1	<p>Releasing Hand Brake</p> <p>Use caution when releasing hand brake. Obtain help when necessary. Avoid being struck by the brake wheel when the pawl is released. Avoid having clothing or hand caught in a spinning brake wheel.</p> <p>When unable to release a hand brake that has been set after an air brake application, if possible, follow this procedure:</p> <ol style="list-style-type: none"> 1. Recharge train line pressure of the car.
----------------	--

	<ol style="list-style-type: none"> 2. Reapply air brake (to relieve tension on hand brake chain). 3. Release hand brake by hand.
--	--

Rule Updated Date

July 2, 2013

[^Top](#)

81.11.2: Difficult or Defective Hand Brake

81.11.2	<p>Difficult or Defective Hand Brake</p> <p>If hand brake is difficult to operate, defective or damaged, do not attempt to operate it.</p> <p>Report the defective brake to proper authority and attach a bad order tag to hand brake wheel or lever.</p>
----------------	--

Rule Updated Date

July 2, 2013

[^Top](#)

81.11.3: Brake Sticks

<p>81.11.3</p> <p><i>Ref. Rule(s)</i> 81.5.4</p>	<p>Brake Sticks</p> <p>When practical and available, use approved brake sticks to operate:</p> <ul style="list-style-type: none"> • Hand brake wheels. • Knuckles. • Angle cocks located on the side nearest where you are standing. <p>Precautions when using brake sticks:</p> <ul style="list-style-type: none"> • Car must be stopped. • Work from the field side rather than between adjacent tracks when possible. • Brake sticks less than 5 feet in length may not be used to reach across drawbar to operate hand brake wheel. • The handle can easily foul an adjacent track, so be alert to keep clear of moving equipment. <p>Do not:</p>
---	---

	<ul style="list-style-type: none"> • Place the butt of the brake stick against your body. • Climb or cross equipment with the brake stick in your hand. • Use brake stick while in or on a vehicle. • Operate the hand brake quick release with a brake stick. <p>Local instructions may be issued regarding use of brake sticks.</p>
--	---

Rule Updated Date

May 2, 2016

System Special Instructions

Effective Date: May 2, 2016

[^Top](#)

81.12: Wheel Chocks / Skate

81.12	<p>Wheel Chock / Skate</p> <p>Use wheel chocks or skates where required. When placing or removing wheel chocks or skates, keep body outside rail or place from outside the rails to avoid pinch points.</p>
--------------	--

Rule Updated Date

July 2, 2013

[^Top](#)

81.13: Coupling and Uncoupling Equipment

<p>81.13</p> <p><i>Ref. Rule(s)</i></p> <p>81.5.4</p>	<p>Coupling and Uncoupling Equipment</p> <p>Local instructions may be issued requiring:</p> <ul style="list-style-type: none"> • Movement to stop before coupling is made. • Employees riding locomotives to dismount prior to coupling. <p>When coupling or uncoupling:</p> <ul style="list-style-type: none"> • Stand in the clear.
--	---

	<ul style="list-style-type: none"> • Ensure couplers are in proper alignment and knuckle is open before coupling. • Turn face away from connected air hoses while uncoupling. <p>Do not:</p> <ul style="list-style-type: none"> • Ride cars to coupling. • Use your feet to operate uncoupling lever. • Use excessive force or jerk on uncoupling lever. • Operate an uncoupling lever on a car or engine while riding on another car or engine. <p>Be alert for pinch points. Always place your hand on portion of uncoupling lever that is designed as the handle.</p> <p>Use the uncoupling lever to open knuckles when possible.</p> <p>If you must use hands to open the knuckle on standing equipment, avoid placing more than one foot between the rails when possible. During coupling operations, separate equipment at least 100 feet and stop equipment before reaching in. Make sure knuckle pin is in place before putting hand on the knuckle.</p>
--	--

Rule Updated Date

May 2, 2016

System Special Instructions

Effective Date: May 2, 2016

[^Top](#)

81.13.1: Going between Cars

<p>81.13.1</p> <p><i>Ref. Rule(s)</i></p> <p>81.2.2</p> <p>81.5.4</p> <p>81.13.3</p>	<p>Working Between Equipment</p> <p>Do not go between, in front of or behind moving equipment to arrange knuckles, couplers or manipulate other appliances for any reason without sufficient distance.</p> <p>Before going between equipment to perform work:</p> <ul style="list-style-type: none"> • Allow slack to adjust. • On tracks where cars are likely to roll together, apply sufficient hand brakes, but not less than two, on unattached portion to prevent movement.
---	--

Rule Updated Date

July 2, 2013

[^Top](#)

81.13.2: Coupler Adjustment

<p>81.13.2</p> <p><i>Ref. Rule(s)</i> 81.2.2</p>	<p>Coupler Adjustment</p> <p>When necessary to make a coupler adjustment:</p> <ul style="list-style-type: none">• Avoid lifting the full weight of couplers.• Do not kick or use your foot to make a coupler adjustment.• Coupler must move without applying excessive force. <p>If unable to make the adjustment using reasonable force, use a Knuckle-Mate or coupler alignment strap, if available.</p>
---	---

Rule Updated Date

July 2, 2013

[^Top](#)

81.13.3: Using a Knuckle-Mate

<p>81.13.3</p> <p><i>Ref. Rule(s)</i> 81.2.2 81.5.4 81.13.1</p>	<p>Using a Knuckle-Mate</p> <p>When using a Knuckle-Mate to adjust a misaligned coupler, the following procedure must be used:</p> <ol style="list-style-type: none">1. Separate the misaligned couplers at least 100 feet, then close the knuckle of the coupler or couplers that need adjustment.2. Place the Knuckle-Mate over the top of the knuckle, making sure the central pin is securely in the hole of the knuckle (pin may be adjusted by loosening the levered nut).3. Assume a braced position with both hands on the handle.4. Exert a steady pull on the handle, being careful that an unexpected movement of the coupler does not cause overbalance.5. When couplers are properly aligned, remove the Knuckle-Mate, open at least one knuckle, stand clear of the equipment and proceed with the coupling.6. Return the Knuckle-Mate to its assigned location.
--	--

Rule Updated Date

July 2, 2013

[^Top](#)

81.13.4: Using Coupler Alignment Strap

<p>81.13.4</p> <p><i>Ref. Rule(s)</i></p> <p>81.2.2</p> <p>81.5.4</p> <p>81.13.1</p>	<p>Using a Coupler Alignment Strap</p> <p>When using a coupler alignment strap to adjust misaligned couplers, the following procedure must be used:</p> <ol style="list-style-type: none">1. Separate the cars with misaligned coupler(s) at least 100 feet.2. Apply sufficient hand brakes to secure the car(s) not coupled to the engine.3. Close knuckles on both cars and check that the locking blocks have dropped.4. Check for large burrs on the knuckle surfaces that could cut or damage the nylon material of the strap. If a burr or other defect is discovered that would damage the strap, change the knuckle or notify mechanical personnel for assistance.5. Place one loop on the strap inside the closed knuckle on the misaligned coupler. Lay the remaining strap material on the top of the coupler shank.6. Move the equipment together until the couplers are about three feet apart.7. Keeping one foot outside the rail, place the remaining strap loop inside the closed knuckle of the coupler to be used for pulling.8. Stand clear of the track and the alignment strap.9. Move the engine very slowly in the direction that tightens the strap until the coupler is centered.10. Move the engine in the direction that puts slack back into the strap, until about three feet separates the equipment.11. Keep one foot outside the rail. Lift the uncoupling lever to open the knuckle and remove the strap.12. Remove the strap from the other knuckle.
---	---

Rule Updated Date

July 2, 2013

[^Top](#)

81.13.5: Replacing Knuckle

<p>81.13.5</p>	<p>Replacing Knuckles</p>
-----------------------	----------------------------------

<p><i>Ref. Rule(s)</i> 81.2.2 81.5.4 81.13.1</p>	<p>When replacing a knuckle, the following procedure must be used:</p> <ol style="list-style-type: none"> 1. Use the correct knuckle type. 2. Keep your feet clear of the area under the coupler to the extent possible. 3. Make sure the knuckle pin is in place, then open the knuckle. 4. Remove the pin and place within easy reach. 5. Remove the knuckle from the coupler and dispose of it ensuring it will not become a tripping hazard. 6. Holding or securing the uncoupling lever up, ensure that the lock block is back into the coupler recess as far as it will go. 7. Use good body mechanics and lift the knuckle and place it into the coupler pocket. 8. Insert the knuckle pin into the pin hole, close the knuckle and check to see that it locks properly. Do not close it with your foot.
--	---

Rule Updated Date

July 2, 2013

[^Top](#)

81.13.6: Opening Angle Cock

<p>81.13.6 <i>Ref. Rule(s)</i> 81.11.3</p>	<p>Opening Angle Cock</p> <p>Do not kick, strike or shake pressurized hose couplings. Turning angle cock on moving equipment is prohibited.</p> <p>When opening angle cock the following procedure must be used:</p> <ol style="list-style-type: none"> 1. Open angle cock slowly. Do not use excessive force. 2. Keep your legs and feet clear of the air hose coupling. 3. Listen for air escaping, which will indicate a faulty coupling which may fly apart. <p>If an air leak is heard, close both angle cocks and ensure pressure in the hoses is fully depleted before attempting adjustment or repair.</p> <p>Before opening the angle cock to an uncoupled air hose:</p> <ol style="list-style-type: none"> 1. Grasp the hose at the glad hand, clear of the vent port. 2. Brace the glad hand firmly against your thigh just above the knee with vent port directed away from you. 3. Turn your face away from the glad hand before opening the angle cock.
---	--

Rule Updated Date

July 2, 2013

[^Top](#)

81.13.7: Coupling and Uncoupling Hoses

81.13.7 <i>Ref. Rule(s)</i> 81.5.4	Coupling and Uncoupling Hoses When coupling and uncoupling hoses the following applies: <ul style="list-style-type: none">• Avoid being struck or burned when coupling air hoses or steam connections.• Before coupling or uncoupling air hoses by hand, or before operating angle cocks, have a clear understanding with the engineer and other crew members as to the work to be performed.• When coupling air hoses together or uncoupling air hoses by hand, keep one foot outside the rail and place the other inside the rail. However, when coupling high air dump hoses on cars so equipped, it is permissible to place both feet between the rails. Be prepared to step out should the equipment move.• When necessary to part air brake train line hose connections; close the angle cocks, grasp the hoses firmly, and turn your face away while making the uncoupling.• When separating locomotives allow air hoses to pull apart with the movement of the locomotives.
---	---

Rule Updated Date

July 2, 2013

[^Top](#)

81.14: Dump Cars

81.14 <i>Ref. Rule(s)</i> 1.35	Dump Cars When dumping loads or working around dump doors: <ul style="list-style-type: none">• Ensure all persons are clear on both sides of car and no one is inside before opening the dump door.• Do not close dump doors of empty cars while cars are in motion.• Do not be on or inside cars when it is necessary to "shake" or "bump" cars to loosen gravel or other material.• Do not ride in air dump cars.
---	--

Rule Updated Date

July 2, 2013

[^Top](#)

81.15: Car Doors

81.15	<p>Car Doors</p> <p>TE&Y employees must not open or close car doors.</p> <p>When opening or closing doors:</p> <ul style="list-style-type: none">• Keep fingers clear of the edge or door jamb, casting or rail on which the door travels.• Keep your body clear of the door opening to avoid injury from falling freight.• Check box car doors for damage by thoroughly inspecting the top and bottom track and rollers.• On plug doors examine the roller assembly, locking rods and all crank arms. Make sure the door is properly tracked before opening it. If the door is off track, take necessary precautions before opening it. If a plug door is found open enroute, car may continue in the train to the next location where mechanical forces are available to close the door.• If there is evidence of load shift, i.e. bulging door, take action to relieve the pressure on the car door before opening it.• Guard against spinning or kicking of handles. <p>Close and open doors with a mechanical device if normal force used by one person cannot accomplish the task. Use of excessive force is prohibited. Always position yourself in the clear, should the door fall, and be prepared for any sudden movement of the door. Use proper body positioning to prevent injury.</p>
--------------	---

Rule Updated Date

July 2, 2013

[^Top](#)

81.16: Load Dividers

81.16	Load Dividers
--------------	----------------------

	<p>Inspect the load dividers on a railcar carefully before operating to be certain load divider is properly tracked. The upper and lower crane rails must be free of defect that could derail or hinder load divider operations. If load divider is off track or safety straps are not in place, necessary precautions must be taken to safeguard its use. Do not push or move the door into an area that has not been inspected or is not properly tracked.</p> <p>Operators should position their body to prevent injury in the event of unsuspected movement, falling or stopping of load divider. While operating load dividers, fingers must be kept clear of pinch points and feet clear of gate swing to avoid foot injury.</p>
--	--

Rule Updated Date

July 2, 2013

[^Top](#)

81.17: Cars Being Loaded or Unloaded

<p>81.17</p>	<p>Cars Being Loaded or Unloaded</p> <p>Personnel who load or unload cars are responsible to:</p> <ul style="list-style-type: none"> • Remove and clear platforms, boards, tank car couplings and connections, conveyers, loading or unloading spouts, similar appliances or connections, vehicles and other obstructions. • Ensure plug-type and swinging doors on cars are closed. • Make sure persons in, on or about cars have vacated cars before allowing switching. • Avoid damaging lading of partly loaded cars. • Raise and lock the plates on cars equipped with bridge plates. <p>Preventing Uneven Loads. When loading or unloading cars, take precautions to prevent the load from becoming unevenly distributed which may cause the car to overturn or derail.</p> <p>Do not handle cars with improper or uneven loads if the load could shift or fall from the car or the car could derail or overturn.</p>
--------------	--

Rule Updated Date

July 2, 2013

[^Top](#)

81.18: Loading Roadway Equipment

<p>81.18</p>	<p>Loading Roadway Equipment</p> <p>Observe loading rules when loading and securing roadway equipment, cranes, dragline or other similar equipment loaded on cars.</p> <p>At stations where Car Department personnel are not available, cars loaded with roadway machinery must be inspected and must not be moved until authorized by the train dispatcher.</p> <p>The train dispatcher must:</p> <ul style="list-style-type: none"> • Not authorize movement until receiving confirmation cars are loaded according to loading rules and are safe for movement. • Request inspection from Car Department at the first inspection point enroute. <p>Cars loaded with roadway equipment must receive frequent inspections enroute.</p>
---------------------	---

Rule Updated Date

July 2, 2013

[^Top](#)

81.19: Air Brake Rigging

<p>81.19</p> <p><i>Ref. Rule(s)</i> 32.7.3</p>	<p>Air Brake Rigging</p> <p>When working on the air brake rigging of cars or other equipment, except locomotives, the air brakes must be cut out and the air reservoir must be drained until repairs are completed.</p>
---	--

Rule Updated Date

July 2, 2013

[^Top](#)

81.20: Moving In and Out of Equipment or On Equipment

<p>81.20</p> <p><i>Ref. Rule(s)</i> 80.6, 81.21.3</p>	<p>Moving In and Out of Equipment or On Equipment</p> <p>When entering equipment employees must:</p> <ul style="list-style-type: none"> • Observe and allow eyes to adjust to changing light level.
--	---

	<ul style="list-style-type: none"> • Use a light when working at night or in reduced lighting. • Prepare for possible missing or unsecured floor panels. • Know and adjust to different step and ladder arrangements. • Not allow tools, chains or other items to be placed where you have to step. • Be prepared for electrical or other compartment doors that may have been left open. • Keep all electrical and other compartment doors securely latched when locomotive is under load, except when locomotive forces are conducting load tests. • Report all defective latches and doors that will not stay closed. <p>If you observe oil or other foreign substances on ladders, steps or walkways, warn other employees and if practicable, avoid using that part of the equipment until the condition is corrected. Be sure you report it properly if you cannot correct it yourself.</p>
--	--

Rule Updated Date

July 2, 2013

[^Top](#)

81.21: Locomotives, Working On or About

81.21	Locomotives, Working On or About
--------------	---

Rule Updated Date

July 2, 2013

[^Top](#)

81.21.1: General Requirements

81.21.1	<p>General Requirements</p> <p>While working on or about locomotives employees must:</p> <ul style="list-style-type: none"> • Know that all workmen are in a safe position before starting an engine. • Keep safety guards in position and fastened. • Keep hands out of radiator shutters and all other equipment that engage automatically. • Keep engine room, cab, walkways, steps, and grab irons clean and free from oil, grease, rags, debris, obstructions, snow, ice, sand, etc.
----------------	--

	<ul style="list-style-type: none"> • Place material or equipment on locomotives where it will not create a hazard while being transported, i.e. EOT devices, brooms, air hoses, wrenches, etc.
--	---

Rule Updated Date

July 2, 2013

[^Top](#)

81.21.2: Restrictions

<p>81.21.2</p>	<p>Restrictions</p> <p>Employees must not:</p> <ul style="list-style-type: none"> • Put face or hands near the main generator or any high-voltage equipment while it is working under load. • Have an open flame in the engine room. • Pull fuses while they are under load. • Open ground relay protective knife switches when ground relay is tripping. • Manually operate high-voltage contactors while the engine is in motion, even though the power plant supplying that particular cabinet is shut down. • Use hands, feet or improvised objects to close or open contacts while under electrical load. • Open high-voltage cabinet when the engine is under load. <p>EXCEPTION: These restrictions do not apply to mechanical forces for inspection purposes.</p> <p>After performing engine maintenance, ensure no tools are left near electrical or rotating equipment.</p>
-----------------------	---

Rule Updated Date

July 2, 2013

[^Top](#)

81.21.3: Locomotive Cab Floor

<p>81.21.3</p>	<p>Locomotive Cab Floor</p> <p>If necessary to remove floor board(s) for inspection or repair purposes:</p>
-----------------------	--

	<ul style="list-style-type: none"> • "Danger Floor Out" sign must be placed at each door to the locomotive cab at all times when the floor boards are removed. • Floor boards should be replaced when leaving the cab. If it is not practical to replace the floor board due to work in progress and there is potential for anyone entering the cab, the cab doors must have yellow caution tape tied across the door openings. If available, a flashing red strobe light may also be left in the locomotive cab. • If possible, locomotive cab lights should be left on so the opening is visible. • Floor boards must be replaced when work is complete.
--	--

Rule Updated Date

July 2, 2013

[^Top](#)

81.21.4: Locomotive Electrical Components

<p>81.21.4</p>	<p>Locomotive Electrical Components</p> <p>Employees may only make repairs for which they are qualified.</p> <p>The generator field switch must be "OFF" while working on or inspecting the main generator or power circuits on diesel locomotives. On multiple unit locomotives, the power plant must be isolated from control. When traction motors are to be inspected, the generator field switch must be "OFF", the throttle closed, the reverser handle removed and the air brakes set. At locations other than established inspection or shop locations, the employee making the inspection must carry the reverser handle with him while making the inspection and tag the control stand "out of service".</p> <p>Do not repair any switches, contactors or relays on locomotives without first shutting down the diesel engine and opening the control switch and the main battery switch. Do not attempt repairs on switches, contractor relays or related electrical apparatus without first shutting off all power. A volt meter must be used to ensure all current has been disconnected before starting repairs.</p>
-----------------------	---

Rule Updated Date

July 2, 2013

[^Top](#)

81.22: Securing Supply Apparatus

81.22	<p>Securing Supply Apparatus</p> <p>After supplying a train with fuel, water, or sand, replace and secure the apparatus in a position clear of tracks.</p>
--------------	---

Rule Updated Date

July 2, 2013

[^Top](#)

81.23: Lockout Protection Required

81.23	<p>Lockout Protection Required</p> <p>Lockout protection must be provided before beginning work activities that require protection for employees or contractors not governed by other lockout protection rules as follows.</p> <p>A. Effective Lockout Protection</p> <p>Line the switch away from movement or place a derail at least 150 feet (50 feet if track speed is 5 MPH) from end of rolling equipment and secure the switch or derail with an effective locking device. The derail or switch must be able to restrict access to the portion of track where work is being performed.</p> <p>One Locking Device</p> <p>Use one locking device if the employees being protected:</p> <ul style="list-style-type: none"> • Are assigned to work together as a unit under a common authority. • Communicate with each other while working. <p>Additional Locking Devices</p> <p>If more than one working group exists, the employees must communicate and apply an additional locking device to the derail or switch.</p> <p>B. Red Flag</p> <p>At each lockout position, display a red flag that can be clearly seen during the day. At night, display a red light with the flag.</p> <p>Do not place a derail or switch in the lockout position until red flag protection is in place. Do not remove the red flag protection until lockout protection is removed.</p> <p>C. Common Authority</p> <p>Common authority must be established. The person or persons in authority must:</p> <ul style="list-style-type: none"> • Communicate with all employees being protected by a red flag and lockout device.
--------------	--

- Control the red flag and the only keys to the lockout protection.
- Be responsible for the safety of all employees in the working area.

Do not work on the track or railroad rolling equipment until both ends of the track have a red flag and lockout protection.

D. Derails

Derails that are used in conjunction with worker protection must be in the derailing position with proper flag displayed only when their use is required for such protection. When their use is not required for protection:

- Remove portable derails, then remove flag.
or
- Lock fixed derails in non-derailing position with an effective locking device, then remove (take down) flag.

Rule Updated Date

July 2, 2013

[^Top](#)

[Union Pacific Rules](#)

Safety Rules

82.0: HANDLING SWITCHES AND DERAILS

- [82.0: HANDLING SWITCHES AND DERAILS](#)
- [82.1: Switches and Derails](#)
- [82.2: Operating Switch by Hand](#)
- [82.3: Switch Operation](#)
- [82.4: Defective Switches](#)
- [82.5: Operating High / Low-Stand Switch](#)
- [82.6: Operating Lever-Action Switches](#)
- [82.7: Switch Point Locks](#)
- [82.8: Spring Switch](#)
- [82.9: Power Switch](#)
- [82.10: Switch Heaters](#)

82.0: HANDLING SWITCHES AND DERAILS

82.0 HANDLING SWITCHES AND DERAILS

Rule Updated Date

July 2, 2013

[^Top](#)

82.1: Switches and Derails

82.1	Switches and Derails Only authorized persons may unlock, operate or repair switches or derails. Do not sit or lean on any part of switch or derail.
-------------	--

Rule Updated Date

July 2, 2013

[^Top](#)

82.2: Operating Switch by Hand

<p>82.2</p> <p><i>Ref. Rule(s)</i> 8.2</p>	<p>Operating Switch by Hand</p> <p>When switch is to be operated by hand, equipment must not pass the following limits:</p> <p>Trailing Point movement:</p> <ul style="list-style-type: none">• Stop movement before fouling adjacent track to prevent tension being placed on switch points and switch handle. <p>Facing Point movement:</p> <ul style="list-style-type: none">• Stop movement a sufficient distance from switch points to prevent binding of switch points.
---	--

Rule Updated Date

July 2, 2013

[^Top](#)

82.3: Switch Operation

<p>82.3</p> <p><i>Ref. Rule(s)</i> 8.2 8.8</p>	<p>Switch Operation</p> <p>Switches have different physical operating characteristics. Be familiar with the procedures for properly lining each type of switch. Switch operation will change depending on weather, temperature, maintenance, and other operating conditions.</p> <p>While operating a switch or derail, keep hands and feet clear to avoid being caught or struck by the switch lever handle or ball.</p> <p>Before operating a switch or derail:</p> <ol style="list-style-type: none">1. Look in both directions and be alert for moving equipment on adjacent tracks.2. Visually inspect the switch or derail, making sure it is not damaged, locked, tagged or spiked and points are not obstructed by ballast, ice, snow, or other material which may interfere with the normal movement of switch points.
---	---

	<p>3. If necessary to remove foreign material between the switch point and stock rail, use a broom, stick or similar object. Do not use your hand or foot for this purpose. If the switch is spiked, do not attempt to operate it.</p> <p>4. Always take a firm stance and be alert for conditions which may cause loss of footing.</p> <p>After operating a switch or derail:</p> <ol style="list-style-type: none"> 1. Look in both directions and be alert for moving equipment on adjacent tracks. 2. Visually inspect the switch or derail, confirming the points fit properly and the target, if so equipped, corresponds with the switch's position.
--	---

Rule Updated Date

July 2, 2013

[^Top](#)

82.4: Defective Switches

82.4	<p>Defective Switches</p> <p>When a switch is hard to operate, defective, or in need of maintenance, do the following:</p> <ul style="list-style-type: none"> • Take the switch out of service. • Report the switch to the proper authority, including its exact location and problem. • Tag the defective switch with a warning tag describing the defect. • Spike switch when necessary. <p>CAUTION: Do not rely solely on tags for identifying spiked switches.</p> <p>The switch must remain out of service until an inspection and repairs can be completed.</p>
-------------	---

Rule Updated Date

July 2, 2013

[^Top](#)

82.5: Operating High / Low-Stand Switch

82.5	Operating High / Low-Stand Switch
-------------	--

<p><i>Ref. Rule(s)</i> 8.8</p>	<p>CAUTION: The switch handle may be under compression and may swing around when released from the keeper slot.</p> <p>When operating a high / low stand switch:</p> <ol style="list-style-type: none"> 1. Lift up on switch handle, keeping the body clear of handle movement. 2. Do not jerk handle and avoid placing body in a twisted or awkward position. Pull handle slowly through its arc of travel. Expect that the switch may suddenly operate in either an easy or stiff manner. 3. Always keep firmly braced and do not exert unnecessary force. Reposition feet as necessary to maintain good body mechanics. Use leg muscles instead of back muscles. 4. When switch is in the desired position, fully insert the handle into the keeper slot. 5. Once the handle is down, secure it with a lock or hook, when available. <p>Use either the two-hand or the mast-support method to lift the lever handle out of the base.</p> <p>Two-Hand Method</p> <p>When using the two-hand method:</p> <ol style="list-style-type: none"> 1. Stand facing the switch stand and place both hands near the end of the handle. 2. Lift up the switch handle, keep your back as straight as possible and your legs slightly bent. <p>Mast-Support Method</p> <p>When using the mast-support method:</p> <ol style="list-style-type: none"> 1. Place one hand on the mast and the other hand on the end of the handle. 2. Stand parallel to the handle and slowly pull the handle through the line of travel. 3. After completing the move, stand as close to the handle as possible, leaving room for the handle to clear the body, and push the handle down into keeper slot. <p>Do not use your feet to operate this type of switch or secure the handle.</p>
------------------------------------	--

Rule Updated Date

July 2, 2013

[^Top](#)

82.6: Operating Lever-Action Switches

<p>82.6</p>	<p>Operating Lever-Action Switches</p> <p>CAUTION: The switch lever may be under compression and could pop up when released from the latch or keeper.</p>
-------------	--

	<p>When operating a lever-action switch:</p> <ol style="list-style-type: none"> 1. Stand parallel to handle movement, with your stance centered over the lever arm handle. 2. If the switch is equipped with a foot latch, keep foot on the latch until lever is moved toward the vertical position. Hand or other object must not be used to release latch. 3. Stand as close as possible to the lever arm, placing one hand on knee or on top of the switch staff for support. 4. Place other hand on the handle and lift up slowly and smoothly. 5. Once the lever has traveled at least to the vertical position, reposition feet and hands so lever movement may be completed with a pushing motion. 6. On ground throw switches (not 45 degree switches), where movement is completed in close proximity to the ground, it is permissible to use one foot to complete the last 6 inches of movement, provided good balance is maintained. Place one foot near the end of the lever and step down until lever arm is latched. <p>CAUTION: Avoid using feet to push the lever arm down during wet, ice, or snow conditions, or if oil, grease, or other such contaminants are present.</p>
--	--

Rule Updated Date

July 2, 2013

[^Top](#)

82.7: Switch Point Locks

<p>82.7</p>	<p>Switch Point Locks</p> <p>Switch point locks are installed on certain main track switches at the base of the rail and locked with a switch lock. Switches equipped with this device are identified by:</p> <ul style="list-style-type: none"> • A sign on the switch stand. or • A switch handle or bottom portion of stand painted yellow. <p>To operate the switch, remove the lock and depress the foot pedal with your foot. This must be done before attempting to operate the switch. Do not use your hands to depress the foot pedal.</p> <p>To reengage the device, snap the switch point lock into locking position by returning the switch to the normal position. Inspect to assure the locking position before putting hands near the switch point lock or replacing the padlock. If the switch point lock fails to snap into locking position, reopen the switch and repeat the process.</p> <p>If defects exist:</p>
-------------	---

	<ul style="list-style-type: none">• Do not attempt to pull the pedal by hand or other means.• Contact the train dispatcher and report the switch point lock defective. Attach an out-of-service or warning tag to the switch.
--	--

Rule Updated Date

July 2, 2013

[^Top](#)

82.8: Spring Switch

82.8	<p>Spring Switch</p> <p>Do not manually operate a spring switch when springs are compressed by wheels, except in an emergency. In an emergency, keep clear of the handle when it is released.</p>
------	--

Rule Updated Date

July 2, 2013

[^Top](#)

82.9: Power Switch

82.9	<p>Power Switch</p> <p>Take precautions to avoid injury when working on power-operated, remote or automatic control, or interlocking switches, derails, or movable point frogs.</p> <ul style="list-style-type: none">• Keep hands and feet clear of connections.• Do not place hands or feet between switch point and stock rail without first isolating the switch against remote operation.
------	--

Rule Updated Date

July 2, 2013

[^Top](#)

82.10: Switch Heaters

82.10	Switch Heaters Avoid contact with switch heaters or switch rails when heaters are operating.
-------	--

Rule Updated Date

July 2, 2013

[^Top](#)

Union Pacific Rules

Safety Rules

83.0: INTERMODAL RAMP RULES

- [83.0: INTERMODAL RAMP RULES](#)
- [83.1: General Intermodal Ramp Rules](#)
- [83.1.1: Authorized Personnel on Company Property](#)
- [83.1.2: Walkways](#)
- [83.1.3: Staying Clear of a Suspended Load](#)
- [83.1.4: Riding In/On Intermodal Equipment](#)
- [83.1.5: Parking of Containers, Trailers, Chassis](#)
- [83.1.6: Adjustment of Containers on Chassis](#)
- [83.1.7: Security Bolts and Seals](#)
- [83.1.8: Repairs to Equipment](#)
- [83.1.9: Intermodal Equipment Maintenance and Repair Lockout / Tagout Procedures](#)
- [83.2: Operating Vehicles on Ramp](#)
- [83.2.1: Speed Limits on Ramp](#)
- [83.2.2: Observing Stop Signs](#)
- [83.2.3: Vehicle Lights](#)
- [83.2.4: Operating Vehicles](#)
- [83.3: Working on or Around Equipment](#)
- [83.3.1: Precautions Near Equipment](#)
- [83.3.2: Overhead Lifting](#)
- [83.3.3: Working Around Lift Equipment - Groundmen](#)
- [83.3.4: Staying Clear of a Suspended Load](#)
- [83.3.5: Getting On and Off Intermodal Cars](#)
- [83.3.6: Top Chords-Double Stack Cars](#)
- [83.3.7: Standing on Platform](#)
- [83.3.8: Crossing Platforms](#)
- [83.4: Loading Trailer/Container on Flat Car](#)
- [83.4.1: Trailer/Container Doors](#)
- [83.4.2: King Pin](#)
- [83.4.3: Loading Container on Flat Car - COFC](#)
- [83.4.4: Electrical Wrenches](#)
- [83.4.5: Hitches](#)
- [83.5: Container on Double Stack Car](#)
- [83.5.1: Loading Container](#)
- [83.5.2: Side Spacers](#)

- [83.5.3: IBC Storage](#)
- [83.5.4: Securing Containers](#)
- [83.6: Stacking Chassis](#)

83.0: INTERMODAL RAMP RULES

83.0 INTERMODAL RAMP RULES

Note: This chapter governs all Union Pacific Railroad employees and any contractor or vendor whose duties may include working within or close to intermodal facilities.

Rule Updated Date

July 2, 2013

[^Top](#)

83.1: General Intermodal Ramp Rules

83.1 General Intermodal Ramp Rules

Rule Updated Date

July 2, 2013

[^Top](#)

83.1.1: Authorized Personnel on Company Property

83.1.1	<p>Authorized Personnel on Company Property</p> <p>All employees and third parties including vendors, contractors and visitors who are not assigned to the intermodal facility must receive permission to enter by checking in with gatehouse personnel.</p>
---------------	---

Rule Updated Date

July 2, 2013

[^Top](#)

83.1.2: Walkways

83.1.2	Walkways Use only designated pathways for walking. Keep eyes on path and remain alert for obstructions and walking conditions including moving vehicles and equipment.
--------	--

Rule Updated Date

May 2, 2016

System Special Instructions

Effective Date: May 2, 2016

[^Top](#)

83.1.3: Staying Clear of a Suspended Load

83.1.3	Staying Clear of a Suspended Load Working, standing or walking under a suspended load is prohibited. Keep hands and feet clear of a suspended load.
--------	---

Rule Updated Date

July 2, 2013

[^Top](#)

83.1.4: Riding In/On Intermodal Equipment

83.1.4	Riding In/On Intermodal Equipment Only the operator may ride in a packer, crane, hostling truck, or forklift while the equipment is moving. Exception: Employees in training may ride in the packer or crane.
--------	--

Rule Updated Date

July 2, 2013

[^Top](#)

83.1.5: Parking of Containers, Trailers, Chassis

83.1.5	Parking of Containers, Trailers, Chassis Do not park equipment where it will protrude into roadways or is hazardous to passing vehicles or equipment.
---------------	---

Rule Updated Date

July 2, 2013

[^Top](#)

83.1.6: Adjustment of Containers on Chassis

83.1.6	Adjustment of Containers on Chassis Employees are prohibited from attempting to adjust containers not properly seated on chassis by other than securing the proper lift equipment to reseat the container onto the chassis. Do not use any of the following to adjust containers not properly seated on chassis: <ul style="list-style-type: none">• Hammers.• Crowbars.• Any other devices. Employees are prohibited from placing hands between the container and chassis.
---------------	---

Rule Updated Date

July 2, 2013

[^Top](#)

83.1.7: Security Bolts and Seals

83.1.7	Security Bolts and Seals Employees are prohibited from applying or removing security bolts and seals from trailer or container doors. Only Freight Damage Prevention personnel or Railroad Police are authorized to open trailer/container doors and check for proper blocking and bracing of lading in containers or trailers.
---------------	--

Rule Updated Date

May 2, 2016

System Special Instructions

Effective Date: May 2, 2016

[^Top](#)

83.1.8: Repairs to Equipment

83.1.8	Repairs to Equipment Non-authorized personnel are prohibited from making repairs to railroad or private equipment.
---------------	--

Rule Updated Date

July 2, 2013

[^Top](#)

83.1.9: Intermodal Equipment Maintenance and Repair Lockout / Tagout Procedures

83.1.9	Intermodal Equipment Maintenance and Repair Lockout / Tagout Procedures
---------------	--

In order to properly lock out and tag out equipment on UPRR intermodal ramps and service areas, prior to performing service, maintenance, adjustments or repair of any energized type of equipment, the following steps must be taken:

1. Apply the parking brake if equipped and test the brake to ensure that it will hold.
2. Shut the equipment down and remove the key from the ignition switch.
3. Release all stored energy in hydraulic, pneumatic, electric, mechanical, chemical, thermal and any other sources of energy present in equipment.
4. Block at least one of the equipment's wheels on both sides to prevent unwanted movement.
5. Ensure that no movement will take place if controls are moved, whether intentionally or unintentionally. All lockable or brace-able components must be locked or braced to prevent any movement of equipment.
6. Place a "do not operate / out of service" sign facing inward at the driver's controls, attached to the steering wheel or blocking door entry way to ensure that anyone approaching the equipment controls will see the sign.
7. Place reflective safety cones that are at least 36" in height in the front center and rear center of equipment when it is practical and safe to do so.
8. Disconnect the battery using the battery disconnect switch and lock if the battery is equipped. If there is no disconnect switch, disconnect the battery cables from the battery and place a lock in the ring on the battery cable with a tag indicating "out of service" so the battery cannot be reconnected without removing the lock. In cases where the battery cable is disconnected, the cable must be placed in a position to ensure that it will not accidentally come into contact with the battery terminal.
9. Follow all manufacturer procedures to ensure that the equipment is safe for performing maintenance or service.
10. Test the integrity of the tagout. If the equipment cannot be started and the components cannot be energized, you may safely start the maintenance or service.
11. Only the employee who tagged the equipment out of service or that individual's supervisor, may remove the lock out- tag out locks and tags and restore equipment to service.

Rule Updated Date

May 2, 2016

System Special Instructions

Effective Date: May 2, 2016

[^Top](#)

83.2: Operating Vehicles on Ramp

83.2 Operating Vehicles on Ramp

Rule Updated Date

July 2, 2013

[^Top](#)

83.2.1: Speed Limits on Ramp

83.2.1	Speed Limits on Ramp Maximum speed on intermodal ramps is 20 MPH.
--------	---

Rule Updated Date

May 2, 2016

System Special Instructions

Effective Date: May 2, 2016

[^Top](#)

83.2.2: Observing Stop Signs

83.2.2	Observing Stop Signs All vehicle operators must come to a complete stop prior to passing a stop sign or painted stop bar location.
--------	--

Rule Updated Date

May 2, 2016

System Special Instructions

Effective Date: May 2, 2016

[^Top](#)

83.2.3: Vehicle Lights

83.2.3	Vehicle Lights All vehicles and equipment operating on ramps will have headlights/running lights on dim and four-way flashers on while operating. All equipment and vehicles assigned to ramp operations must display illuminated amber strobe lights.
--------	---

Rule Updated Date

May 2, 2016

System Special Instructions

Effective Date: May 2, 2016

[^Top](#)

83.2.4: Operating Vehicles

83.2.4	Operating Vehicles Only authorized drivers are permitted to operate yard vehicles. Compliance with other vehicle rules including speed and inspection also apply to operating all vehicles. Reckless or careless driving is prohibited. Operators of vehicles must: <ul style="list-style-type: none">• Maintain control at all times.• Be prepared to stop within one half their range of vision short of any person or object.• Avoid striking standing or moving equipment or being struck by moving equipment.• Maintain sufficient clearance from tracks and equipment on those tracks.• Operate only in designated areas and over designated crossings, pathways and road ways.• Know the vehicle and load will clear all obstructions or close clearances.• Observe all traffic signs, warnings and pavement direction indications.• Yield to all trains, and lift equipment.• Maintain a minimum of 400 feet from lift equipment unless authorized by ramp management.• Back into parking stalls. Operators of vehicles must not:
--------	--

	<ul style="list-style-type: none"> • Make adjustments or disable any speed limiting devices. • Park the vehicle foul of any railroad track. • Park vehicle to foul a portion of a roadway unless proper warning to approaching traffic is provided. • Cut through empty parking stalls. • Pull through parking stalls. • Cross over yellow crane safety distance lines. • Drive under or park under overhead cranes. • Enter a protected work area. • Pass any vehicle on the right side of the roadway.
--	---

Rule Updated Date

July 2, 2013

[^Top](#)

83.3: Working on or Around Equipment

83.3 Working on or Around Equipment
--

Rule Updated Date

July 2, 2013

[^Top](#)

83.3.1: Precautions Near Equipment

83.3.1	<p>Precautions Near Equipment</p> <p>All personnel on the ground must remain alert and attentive to equipment movement and expect movement at any time. Employees on the ground must maintain a safe distance from tractors, trailers, or any other equipment standing or moving.</p>
---------------	--

Rule Updated Date

May 2, 2016

System Special Instructions

Effective Date: May 2, 2016

[^Top](#)

83.3.2: Overhead Lifting

83.3.2	<p>Overhead Lifting</p> <p>At points where side loaders or cranes are used, do not walk between the trailer or container and the flat car during any step of the loading or unloading cycle.</p> <p>Exception: It is permissible to raise or lower landing gear after all other movement has stopped and a job briefing has been performed with the crane or packer operator.</p>
--------	--

Rule Updated Date

July 2, 2013

[^Top](#)

83.3.3: Working Around Lift Equipment - Groundmen

83.3.3	<p>Working Around Lift Equipment - Groundmen</p> <p>All personnel must stay clear of crane or packer lifting arms at all times. Do not go under a suspended trailer or container.</p> <p>When groundmen are utilized, they must remain in contact with the crane or packer operator at all times during the loading and unloading process. If the operator loses contact with the groundman, all movement must be stopped until contact is restored and the operator knows the groundman's location.</p> <p>When working with cranes or packers, the groundmen and all personnel in the vicinity must:</p> <ul style="list-style-type: none">• Be positioned where they cannot be caught between the load being handled and an obstruction.• Stay clear of suspended loads.• Not be under the crane boom or similar machine when it is lifting or suspending a container, trailer or chassis.
--------	--

	<ul style="list-style-type: none"> • Not stand near or in line with a cable, rope or chain under tension or one that might be tightened at any moment. • Not operate equipment under crane area unless authorized to do so by crane operator.
--	---

Rule Updated Date

May 2, 2016

System Special Instructions

Effective Date: May 2, 2016

[^Top](#)

83.3.4: Staying Clear of a Suspended Load

83.3.4	<p>Staying Clear of a Suspended Load</p> <p>Working, standing or walking under a suspended load is prohibited. Keep hands and feet clear of a suspended load.</p>
---------------	--

Rule Updated Date

July 2, 2013

[^Top](#)

83.3.5: Getting On and Off Intermodal Cars

83.3.5	<p>Getting On and Off Intermodal Cars</p> <p>Employees are permitted to get on and off standing intermodal cars by stepping on truck bolsters provided:</p> <ul style="list-style-type: none"> • Track is known to be protected by blue and/or red flags. • Truck bolster is seen to be free of debris and moisture. • Hands are free while getting on or off cars. • Employee is facing equipment when getting on or off. • Three-point contact is maintained.
---------------	---

*Ref. Rule
81.4.1*

Rule Updated Date

May 2, 2016

System Special Instructions

Effective Date: May 2, 2016

[^Top](#)

83.3.6: Top Chords-Double Stack Cars

83.3.6	Top Chords-Double Stack Cars Only use the walkways provided. Do not walk on top chords of double stack cars.
--------	--

Rule Updated Date

July 2, 2013

[^Top](#)

83.3.7: Standing on Platform

83.3.7	Standing on Platform Do not stand on a platform or well of a car while that same platform or well is being loaded or unloaded.
--------	--

Rule Updated Date

July 2, 2013

[^Top](#)

83.3.8: Crossing Platforms

83.3.8	Crossing Platforms
--------	---------------------------

	Cross from platform to platform using the walkways provided. Do not cross from car to car over the drawbars.
--	--

Rule Updated Date

July 2, 2013

[^Top](#)

83.4: Loading Trailer/Container on Flat Car

83.4 Loading Trailer/Container on Flat Car

Rule Updated Date

July 2, 2013

[^Top](#)

83.4.1: Trailer/Container Doors

83.4.1	Trailer/Container Doors Close and secure trailer and container doors before moving or loading.
---------------	--

Rule Updated Date

July 2, 2013

[^Top](#)

83.4.2: King Pin

83.4.2	King Pin
---------------	-----------------

	<p>While a trailer is being loaded, loading employees must visually inspect the trailer king pin to ensure that:</p> <ul style="list-style-type: none"> • It is properly seated and secured in the hitch. • The diagonal strut is locked in the upright position, as evidenced by the hitch-lock indicators.
--	--

Rule Updated Date

July 2, 2013

[^Top](#)

83.4.3: Loading Container on Flat Car - COFC

<p>83.4.3</p>	<p>Loading Container on Flat Car - COFC</p> <p>A. Loading Container With Detachable Chassis</p> <p>When containers with chassis are loaded on flat cars, make sure the pins securing the chassis to the container body are in place and locked. Before loading a container/chassis assembly, ensure all chassis locks are in place and secure.</p> <p>B. Loading Container Without Detachable Chassis</p> <p>When containers without chassis are loaded on flat cars, inspect the containers and make sure all corners are secured and locked in the corner castings.</p>
----------------------	--

Rule Updated Date

July 2, 2013

[^Top](#)

83.4.4: Electrical Wrenches

<p>83.4.4</p> <p><i>Ref. Rule(s)</i> 78.2</p>	<p>Electrical Wrenches</p> <p>Employees must ground electric screw wrenches properly. Extension cords must be no longer than 89 feet.</p> <p>Wear rubber gloves when operating electrical wrenches in wet conditions.</p>
--	--

Rule Updated Date

July 2, 2013

[^Top](#)

83.4.5: Hitches

83.4.5	<p>Hitches</p> <p>Employees must stay clear of the diagonal strut of "pull-up" hitches to avoid injury in case the hitch is knocked down inadvertently. Do not manually open hitch jaws until ensuring the diagonal-strut indicator shows "locked."</p> <p>To lower a knockdown hitch properly, complete these steps, making sure to stand clear of the stanchion:</p> <ol style="list-style-type: none">1. Stand on either side of the stanchion with your legs positioned to give solid support.2. Using a sledge hammer, strike the unlocking knockdown lever located between the upper diagonal struts.3. Make sure this action causes the knockdown lever to retract the diagonal locking plunger, causing the stanchion to fall. <p>If this procedure fails, "bad order" the hitch until a railroad maintenance employee repairs the hitch and returns it to service.</p> <p>Do not:</p> <ul style="list-style-type: none">• Use a pry bar to force the hitch down.• Place a bar between the locking plunger and the locking plate to try to retract the locking plunger. <p>Anytime a locking mechanism does not work freely and requires excessive force, "bad order" the hitch and have it repaired before using the mechanism again.</p>
---------------	--

Rule Updated Date

July 2, 2013

[^Top](#)

83.5: Container on Double Stack Car

83.5 Container on Double Stack Car

Rule Updated Date

July 2, 2013

[^Top](#)

83.5.1: Loading Container

83.5.1	Loading Container When loading double stack cars, make sure the container Interbox Connectors (IBCs) are locked in the proper position.
--------	---

Rule Updated Date

July 2, 2013

[^Top](#)

83.5.2: Side Spacers

83.5.2	Side Spacers On doublestack car platforms equipped with side spacers, the side spacers must be in the down position before loading 96 inch wide containers, and in the up position before loading 102 inch wide containers.
--------	---

Rule Updated Date

July 2, 2013

[^Top](#)

83.5.3: IBC Storage

83.5.3	IBC Storage IBCs must be stored in the box provided on each platform of a double stack car. IBCs must not be left on walkways or stored in other than the IBC box.
---------------	--

Rule Updated Date

July 2, 2013

[^Top](#)

83.5.4: Securing Containers

83.5.4	Securing Containers Double stacked containers must be loaded using four (4) AAR approved IBCs. All four (4) IBCs must be locked in the corner casting of the stacking post for the container to be secure. All containers that are positioned in a double stack car (bottom well loading only) shall have IBCs removed from the top of container before car is released for movement.
---------------	--

Rule Updated Date

July 2, 2013

[^Top](#)

83.6: Stacking Chassis

83.6	Stacking Chassis To secure the arms in the chassis stacks, complete these steps: <ol style="list-style-type: none">1. Center the mast over the chassis stack.2. Lower the arms until the foot pads are below the bottom chassis.3. Make sure the arms are lined between the tandems at each end.4. Obtain four chains that are 12 feet long and made of 1/2 inch alloy steel. Ensure the chains have a certified working rating of 11, which is 200 pounds or more.5. Wrap one end of the chain completely around the arm just above the foot pad and hook the chain in place.
-------------	--

- | | |
|--|--|
| | <ol style="list-style-type: none">6. Take the other end of the chain and wrap it around the bottom chassis frame, pull the slack out of the chain, and hook the chain in place.7. Repeat steps 5 and 6 on the other three arms. |
|--|--|

Rule Updated Date

July 2, 2013

[^Top](#)

[Union Pacific Rules](#)

[Safety Rules](#)

GLOSSARY: Glossary

- [GLOSSARY: Glossary](#)

GLOSSARY: Glossary

Glossary

Authorized

The supervisor of an authorized employee has assured that the person under their direction has been qualified and is competent to perform their required work in a safe manner. Authorization in any other manner requires approval from another qualified person.

Body Mechanics

Movement and positioning of the human body. A person who uses good body mechanics properly positions their body or parts of their body in relationship to tasks being performed, stabilizes movement, maintains good footing and grip, and avoids placing undue stress or strain on muscles, ligaments, and joints.

Energized

Connected to an energy source.

Facing Point Movement

Facing point movement is moving into the switch points or making movement from the switch points into the body of the switch.

Fouling a Track

Placement of an individual or a piece of equipment in such proximity to a track that the individual or equipment could be struck by a moving train or on-track equipment, or in any case is within 4 feet of the field side of the near running rail.

Fumes

Minute solid particles arising from the heating of a solid.

Gases

A state of matter which diffuses with other gases, uniformly distributes itself when in a container and changes state as a result of changes in pressure and/or temperature.

Groundman

The person assigned to assist an operator in assuring a safe operation. This is the designated person to give signals.

Licensed

Person has completed appropriate training and passed required examinations.

Off Road Vehicles

An off-road vehicle is a non-licensed vehicle capable of driving on and off paved or gravel surfaces.

Operator

The person at the controls of a tool, machine or piece of equipment.

Periodic Inspection

Inspection conducted as required based on usage of equipment, severity of service conditions, experience gained as to need, but at least annually.

Qualified

Person has been trained and instructed to perform the work in a competent and safe manner.

Three Point Contact

When ascending, descending, crossing through or riding equipment, the use of two feet and one hand or two hands and one foot to maintain contact with the equipment.

Red Zone

Anytime an employee is working within an area where there is the potential to be struck by moving equipment, when required to work on under or between equipment, when working with or around machinery or when entering control operator/train dispatcher work stations.

Toxic

A substance that can potentially cause harm to the body.

Trailing Point Movement

Movement is traveling in a direction from the switch frog towards the switch points.

Vapors

The gaseous form of substances which are normally in a solid or liquid state.

Work Activities (working on the ground)

TE & Y employees performing duties such as walking between adjacent parallel tracks, switching, inspecting, testing, repairing, or servicing equipment or components etc. Activities such as walking to and from a train, which would include getting on and off the locomotive, crew van or yard office, is not considered a work activity.

Rule Updated Date

July 2, 2013

[^Top](#)

[Union Pacific Rules](#)

Safety Rules

INDEX: Index

COVER: Cover Page

- [COVER: COVER PAGE](#)

COVER: COVER PAGE



BUILDING AMERICA®

**UNION PACIFIC RAILROAD
SYSTEM SPECIAL INSTRUCTIONS**

Effective 0900 CDT Monday, May 02, 2016

C.A. Scott, Executive Vice President – Operations
K. H. Hunt, Vice President – Transportation
S. K. Keller, Vice President – HDC & Network Operations
G. N. Garrison, Vice President – Northern Region
C. A. Wilbourn, Vice President – Southern Region
R. M. Castagna, Vice President – Western Region
G. D. Workman, Vice President – Engineering
J. C. Estes, Chief Mechanical Officer
T. F. Jacobi, Vice President – Operating Systems & Practices
R. N. Doerr, Vice President – Safety & CSO

This document supersedes:
Union Pacific Railroad
System Special Instructions
Effective April 01, 2015

Rule Updated Date

May 2, 2016

[^Top](#)

[Union Pacific Rules](#)

[System Special Instructions](#)

SHL: Safety Hot Lines

- [SHL: Safety Hot Lines](#)

SHL: Safety Hot Lines

NORTHERN REGION			
David Giandinoto, Assistant Vice President - Operations Ken Bruening, Chief Engineer - Northern Region Dean Hagelstein, General Superintendent, HDC			
Service Unit	Safety Hot Line	Superintendent	Headquarters
01: Twin Cities	651-552-3916	Erik Erickson	St. Paul, MN
02: Chicago	See Local Instructions	Ricky Wells	Northlake, IL
03: Council Bluffs	See Local Instructions	Paul Hinton	Council Bluffs, IA
04: St. Louis	See Local Instructions	Kelli Dunn	St. Louis, MO
05: Kansas City	See Local Instructions	Jason Wilkerson	Kansas City, MO
13: North Platte	308-535-4545	Tony Orr	North Platte, NE
14: Denver	See Local Instructions	Ron Tindall	Denver, CO
23: Commuter Ops	See Local Instructions	Arnold Robinson	Chicago, IL
SOUTHERN REGION			
Brian McGavock, Assistant Vice President - Operations Mark Wheeland, Chief Engineer - Southern Region Dan Witthaus, General Superintendent, HDC			
Service Unit	Safety Hot Line	Superintendent	Headquarters
06: North Little Rock	501-373-2444	Jay Everett	N. Little Rock, AR
07: Wichita	8-211-9990	Cliff Bowman	Wichita, KS
08: Livonia	866-896-7511	Jamal Chappell	Livonia, LA
09: Houston	8-211-0891	Jack Huddleston	Spring, TX
11: Ft. Worth	817-353-7488	Kurt Zalar	Ft. Worth, TX
12: San Antonio	210-200-3504	Daniel Torres	San Antonio, TX

WESTERN REGION

Neil Scott, Assistant Vice President - Operations

Jason Rea, Chief Engineer - Western Region

Ruben Lopez, General Superintendent, HDC

Service Unit	Safety Hot Line	Superintendent	Headquarters
16: Sunset	800-269-2060	Ramiro Barba	El Paso, TX
17: Utah	800-992-0945	Terry Brown	Salt Lake City, UT
18: Portland	503-249-2539	Robert Ellis	Portland, OR
19: Roseville	916-789-6161	James Rawlinson	Roseville, CA
20: Los Angeles	909-685-2655	Roger Lambeth	Bloomington, CA
21: Pocatello	8-211-1458	Carl Garrison	Pocatello, ID

Operating Practices

Cecil E. Copeland, General Director - Operating Practices – Ph 402-544-8842

Steve L. Foresman, Sr. Director - Operating Practices & Rules – Ph 402-544-3219

Taylor J. Weisbeck, Director Operating Systems Compliance – Ph 402-544-4620

Jay K. Bahr, Director - Field Training Exercises (FTX) – Ph 402-544-6133

Rules Manager	Phone Number	Service Unit
Robbie Goldman	801-212-3815	Denver; Chicago; Commuter Operations; Council Bluffs; Kansas City; North Platte; St. Louis; Twin Cities.
Ricky Carver	402-501-4310	Ft. Worth; Houston; Livonia; North Little Rock; San Antonio; Wichita.
Rob Hunter	909-685-2826	Los Angeles; Roseville; Portland; Salt Lake City; Sunset.

For emergencies call RMCC: 1- 888 UPRR COP or 1-888-877-7267

Harriman or Spring Dispatching Centers: Safety Hot Line Numbers: 8-501-3666 and 800-262-0608

Rule Updated Date

May 2, 2016

[^Top](#)

TOC: Table of Contents

- [TOC: TABLE OF CONTENTS](#)

TOC: TABLE OF CONTENTS

INTRODUCTION TO SPECIAL INSTRUCTIONS	1
Item 1 Time Comparison	1
Item 2 Speed Restrictions	2
Item 2-A Maximum Speeds: General	2
Item 2-B Maximum Speeds: Cars	3
Item 2-C Maximum Speeds: Maintenance of Way and Mechanical Equipment	6
Item 2-D Maximum Speeds: Hot Weather	8
Item 2-E Maximum Speeds: Cold Weather	9
Item 2-F Maximum Speeds: Tons Per Operative Brake (TPOB)	10
Item 3 Trains Handling - Company Equipment	15
1. Rail Trains	15
2. Wrecking Derricks, Locomotive Cranes and Similar Equipment	16
3. Jordan Spreaders	16
4. Snow Plows	17
5. Two-axle Scale Test Cars	17
6. Passenger, Business, and Outfit Cars	17
7. Ballast Cars with Air-Operated Ballast Gates	17
8. Engine Handling ITW (In Track Welder)	18
Item 4 Locomotive Information	19
Item 5 Car Placement and Train Make-up Restrictions	22
Item 5-A Shipments of Excessive Height/Width	22

Item 5-B System Train Make-up Requirements	23
1. Responsibilities When Train Make-up Does Not Meet Requirements	24
2. Maximum Train Length Restrictions	24
3. Maximum EPA/EDBA	25
4. Car Placement Restrictions	26
5. Train Make-up Restrictions West of N. Platte, Denver and El Paso	27
6. Train Make-up and Helper Requirements	28
Item 5-C Coupler Limits with Helper(s), Helper Placement, and Train Power Balance	30
Item 6 Maximum Gross Weight Limitations	32
Item 7 Employee Information	33
Item 7-A Reference Documents	33
Item 7-B Qualifications of Certified Employees	36
Item 8 Heavy and Mountain Grade Operations	40
Item 9 Use of Engine Horns - Quite Zone	44
Item 10 Rule Supplements & Amendments (Cardinal Rules)	45
Item 10-A General Code of Operating Rules, Chapters 1 to 19	49
Item 10-B (<i>Reserved</i>)	82
Item 10-C Air Brake & Train Handling Rules, Chapters 30 to 39	82
Item 10-D Maintenance of Way Rules, Chapters 40 to 57	91
Item 10-E Safety Rules, Chapters 70 to 83	99
Item 10-F Instructions for Inspecting, Welding and Grinding of Rail and Track Components, Chapters 100 to 115	102
Item 10-G Chief Engineer Instruction Bulletins, Chapters 121 to 138	103
Item 10-H Hazardous Materials Instructions	124
Item 10-I Programs and Policies	125
Item 10-J Commuter Train Operations	126
I. Commuter Operations Documents & Requirements	126
II. Instructions Governing Movements Between the Ogilvie Transportation Center (OTC) and Halsted and Erie	126
III. Additional Rules and Instructions	127

Item 10-K Main Track Switches	133
Item 10-L Additional Equipment Securement Requirements	134
Item 10-M Mechanical Department (Maintenance Operations)	136
Item 11 Moveable Point Frogs	145
Item 12 Track Breach Protection	147
Item 13 Train Defect Detectors	149
13.1 General Instructions For All Detectors	149
13.2 Hot Box or Hot Box/Hot Wheel and Dragging Equipment Detector with Radio Transmitted Defect Indicators	151
13.3 Hot Box or Hot Box/Hot Wheel and Dragging Equipment Detector with Radio Transmitted Defect Indicators - Talk On Defect Only	152
13.4 High Wide Shifted Load Detector and Dragging Equipment Detector with Radio Transmitted Verbal Defect Indicators	152
13.5 Dragging Equipment Detector Equipped With Radio Transmitted Verbal Defect Indicators - Talk On Defect Only	152
13.6 Wheel Impact Detector Equipped With Radio Transmitted Verbal Defect Indicators - Talk On Defect Only	152
13.7 Wheel Down Indicators	153
13.8 Detector Failures	153
13.8.1 Failed Detector Situation Table	154
13.8.2 Detector Failure - Action Table	155
Item 14 Operating With Foreign Railroads	156
Item 14-A UPRR Crews Operating Over Foreign Railroads	156
Item 14-B Foreign Railroads Operating on UPRR Tracks	156
Item 15 Work Orders	157
Item 16 Tornado Watch and Warning Instructions	160
Item 17 Accessing General Orders and Bulletins Electronically	161
Item 18 Distant Signals	161
Item 19 Block and Interlocking Signals	162
Item 20 Automatic Cab Signals	169

Item 21 Slide Warning Indicator	169
Item 22 Roadway Signs	170
Item 23 Security Alert Instructions	172
Item 24 California Proposition 65 Warning	173

Rule Updated Date

April 1, 2015

[^Top](#)

[Union Pacific Rules](#)

[System Special Instructions](#)

INTRO: Introduction to Special Instructions

- [INTRO: Introduction to Special Instructions](#)

INTRO: Introduction to Special Instructions

The General Code of Operating Rules, Air Brake and Train Handling Rules, and Safety Rules apply system wide unless modified by System Special Instructions. Timetable subdivision special instructions apply on the subdivision listed.

Observe all slower speed restrictions. Examples include subdivision speed restrictions, train consist speed restrictions, tons per operative brake restrictions and locomotive maximum speed etc.

When operating on any foreign railroad:

- Respect all restrictions listed in UPRR System Special Instructions Item 2-A (parts 1, 2, and 9 through 12), Item 2-B, Item 2-C, and Item 14.
- Respect the foreign railroad's requirements that are more restrictive.

Rule Updated Date

May 2, 2016

[^Top](#)

ITEM 1: Time Comparison

- [Item 1: Time Comparison](#)

Item 1: Time Comparison

Obtain Coordinated Universal Time (Greenwich Time) by calling:

- 8-544-4601
or
- 8-976-1111

Use the following table to convert from Coordinated Universal Time:

FROM THE SECOND SUNDAY IN MARCH UNTIL THE FIRST SUNDAY IN NOVEMBER, CONVERT TO:	BY SUBTRACTING:	FROM THE FIRST SUNDAY IN NOVEMBER UNTIL THE SECOND SUNDAY IN MARCH, CONVERT TO:	BY SUBTRACTING:
Central Daylight Saving Time	5 hours	Central Standard Time	6 hours
Mountain Daylight Saving Time	6 hours	Mountain Standard Time	7 hours
Pacific Daylight Saving Time	7 hours	Pacific Standard Time	8 hours

Rule Updated Date

May 2, 2016

[^Top](#)

[Union Pacific Rules](#)

System Special Instructions

ITEM 2: Speed Restrictions

- [Item 2-A: Maximum Speeds: General](#)
- [Item 2-B: Maximum Speeds: Cars](#)
- [Item 2-C: Maximum Speeds: Maintenance of Way and Mechanical Equipment](#)
- [Item 2-D: Maximum Speeds: Hot Weather](#)
- [Item 2-E: Maximum Speeds: Cold Weather](#)
- [Item 2-F: Maximum Speeds: Tons Per Operative Brake \(TPOB\)](#)

Item 2-A: Maximum Speeds: General

Part	Description	MPH
1	Key Trains (including trains with one or more PIH/TIH cars)	50
	Key Trains - Crude Oil / Key Trains - High Hazard Flammable Train (Operating within a High Threat Urban Area)	40
2	Moving against the current of traffic:	
	• Passenger trains	59
	• All other trains	49
3	Through dual control switch turnouts not connected to a siding	30
4	Through other turnouts not connected to a siding	15
5	Sidings:	
	• Sidings identified with a "!" symbol and connected turnouts / not to exceed main track speed at that location	30
	• Other sidings and connected turnouts / not to exceed main track speed at that location	20
6	Tracks other than main tracks and sidings	10
7	Balloon tracks & Wye tracks, except those portions used as a main track or siding	5
8	Live rails of track scales	5
9	Designated locomotive servicing facilities and car repair facilities	5
10	Engines with cars	70
	• GE AC Locomotives	75
	• Engines UP 844, 949, 951, B963, 3985, 6936 and Amtrak and other passenger engines	82
	• SW-1500	50
11	A multiple-unit engine controlled from other than the leading unit	30
12	Engines running light	70

	• Eight locomotives or less may operate at passenger train speeds not to exceed	70
	• More than eight locomotives	45
	• When speed cannot be controlled using dynamic brake	45
	• When speed cannot be controlled using dynamic brake on descending grade over 1 percent	25
13	Unit trains (loaded or empty)	50
14	Military trains	
	• Loaded	50
	• Empty	60
	Exception: Military train that exceeds 60 cars (Does not Apply to military trains consisting entirely of intermodal equipment.)	45
15	Movements over piston type (Dowty) retarders	6

Rule Updated Date

May 2, 2016

[^Top](#)

Item 2-B: Maximum Speeds: Cars

A. Use the train consist, when available, to identify the maximum train speed. It shows the maximum speed for each car and the maximum train speed, which is the lowest maximum speed of any car entrained. If a car that restricts the maximum train consist speed is set out at an unscheduled location, operate at the lowest maximum speed of cars left in the train.

Exception: Rule 31.8.7 part B regarding coal train operations.

B. The maximum speed for cars is shown on the train consist. When train consist is not available:

- The maximum speed is 60 MPH, unless the table shows a different speed.
- or
- If the equipment is 100% passenger car equipment, the train may operate at maximum passenger speed, unless otherwise restricted.

C. Use the speeds listed in the table as a backup summary:

- When a train consist is not available.
- When a pickup is made enroute without car speed information.
- or
- For foreign railroads operating on UPRR.

D. Refer to Item 2-C for MW and Mechanical equipment speeds.

Maximum Speeds Cars

Part	Description	MPH
1	Loaded ordinary flat cars	50
	Exceptions:	
	(a) Flat cars loaded with auto frames; flat cars UP 904150-904167 loaded with locomotive traction motors	60
	(b) Cars in series TBCX 7471-7481, TBCX 76700-76707, and specially equipped flat cars carrying airplane and rocket equipment	70
2	Bulkhead flat cars:	
	• Loaded	50
	• Empty cars equipped with constant contact side bearings	50
	• Empty	40
3	Centerbeam flat cars:	
	• Loaded with plywood or lumber	60
	• Loaded with other commodities	50
	• Empty	50
4	Anode flat cars:	
	• Loaded	50
	• Empty cars equipped with constant contact side bearings	50
	• Empty	40
5	Heavy-Duty Flat Cars, 8 axles or more:	
	8 to 14 axles:	
	• Loaded or empty	45
	16 to 24 axles:	
	• Loaded	25
	• Empty	45
	36 axles:	
	• Loaded	15
	• Empty	25
6	TOFC or COFC flat cars or other intermodal equipment:	
	• Loaded	70
	• Empty	60
	Exceptions:	
	(a) Loaded multi-platform/unit/well cars	75
	(b) Empty well cars and empty articulated spine cars for carrying trailers and/or containers	70
	(c) Intermodal flat cars made from box cars in series SP 520583-520727, CP 520350-520386 and empty NS 157000-157849	50

	(d) Loaded intermodal flat cars made from box cars in series NS 157000-157849	60
	(e) Flat cars in series DRGW 4015-4071, DRGW 21502-21547, DRGW 21700-21759, SP 513153, SP 514004, SP 513153-515761, SP 518013-518180, SP 599702-599888, SSW 84894, and SSW 85401-85492:	
	• Loaded	50
	• Empty	45
7	Open-top hopper cars:	
	• Loaded	60
	• Loaded with coal	50
	• Empty	50
	• Loaded cars in series CTRN 601001 – 601600 and 602001 - 602920 unless train consist indicates a higher speed	40
	Exception:	
	Empty cars having constant contact side bearings or center plate extension pads	60
8	Gondola cars	50
	Exceptions:	
	(a) Empty car in series EJE 4000-4549, EJE 4800-4874, CR 607000-607480, UP 66800-67649, SP 337700-338099, MRL 38000-38071 and MRL 80511-81332 except if equipped with constant contact side bearings	40
	(b) Loaded cars in series UP 903084-903094; cars with initials UP, WP, MP or GONX loaded with aluminum ingots and empty gondolas having constant contact side bearings or center plate extension pads	60
	(c) Covered coil gondolas equipped with constant contact side bearings	70
9	Gondola or open-top hopper cars used to haul ore	50
10	Covered hopper cars in car series TGSX 443401-443700 and CGAX 9001-9505	50
11	Tank cars:	
	• Loaded	60
	• Empty	50
	Exception:	
	Loaded 4-axle tank cars with 125 ton trucks designed for maximum gross weight of 315,000 lbs	50
12	Multilevels	70
13	Mechanical reefers; cryogenic reefers with initials CRYX or JRSX	70
14	Cabooses	70
15	Business cars and AMTK 70000 and AMTK 71000 series	79
16	Cars in ANSX series 800420-800421, 800425-800427, 800430-800433, and 800440-800444	50
17	Roadrailer™ cars	70

Rule Updated Date

May 2, 2016

[^Top](#)**Item 2-C: Maximum Speeds: Maintenance of Way and Mechanical Equipment**

The maximum speed for cars is 60 MPH unless the train consist shows a different speed. Use the speeds listed below as a backup summary, when a train consist is not available.

Maintenance of Way and Mechanical Equipment		
Part	Description	MPH
1	Continuous welded or jointed rail trains	
	• Loaded	40
	• Empty	50
	Loram rail train (loaded or empty)	50
2	Cars in series RGAX 25000-25049	40
3	MPX cars (excluding outfit cars and locomotive cranes), loaded or empty air dump cars, SPMW 7721-7799, RGAX 3900-3923, SPMW 4111-4147, 5101-5121, 5128-5191, 5202, 5218-5291, 5835, 6401-6438, and SSW 94500-94520	35
	Exception: Series Series MPX 27028-27060, 30000-30014 and 50001-50014	50
4	Outfit cars	40
	Exception: After mechanical department approval following inspection of cars	50
5	Four-axle scale test cars	50
	Two-axle scale test cars	30
6	Snow plows, or locomotive cranes on their own wheels; foreign line or privately-owned derricks, cranes or other similar equipment on their own wheels on revenue billing (unless further restricted on waybill or train consist); or company-owned cranes loaded on flat cars	30
	Exception: Cranes moved on flat cars in series MP 17000-17057 and MP 50064	50
7	Self-propelled cranes, pile drivers and similar equipment moving under its own power or TRT 909	30
8	Hy-rail equipped Holmes, Pettibone and similar type cranes, and hy-rail equipped wheel changers	25
9	Gondola or open top hoppers used to carry ballast	50
	Exception: Loaded UP 901710-901830, UP 919000-920216 & HZGX 7000-7700	60
10	Jordan spreaders (in all plowing operations with a MW Supervisor present):	
	• In snow plowing operations or traveling in either direction with wings retracted and locked	45
	• In snow plowing operations with wings extended	35
	• In other plowing operations	25

	<ul style="list-style-type: none"> • With one wing extended 	15
	When moving in reverse direction, wings should be fully retracted. When there is no MW Supervisor present, be governed by Item 3.3 Jordan Spreader (entrained) rules.	
11	Engines handling ITW (in-track welder) work equipment, Loram rail train or TRT 909	50
12	Wrecking derrick consists are assigned to locations shown below. When operating derrick consists, the equipment having the lowest authorized speed restricts the maximum authorized speed for that consist.	
Assigned Location	Consist Contains Equipment:	MPH
Ogden	UP 905275, 905280, 908455	50
Green River	UP 903047, 909317, 906209, 904206, 904703	60
	UP 905269, 905273, 905274	50
Denver	RGAX 030, 3330	35
Hinkle	UP 903050, 909351, 906203, 904294, 904295, 909355	60
Salt Lake	UP 903046, 904200, 904239, 906200, 906208, 909307, 909308	60
Stockton	UP 909313, 904301	60
	WPMW 796, 797	50
	UP 900310, TPX 14181	40
Portola	UP 903045, 904232, 904300, 909320	60
	WPMW 376, 378	50
North Little Rock	MP 15427, 3646, 15082, 517, 2909, 4324, MPX 251	60
	MP 2155, 3160, 15090	50
Roseville	SPMW 7113, 7184, 7185, 7071, 7055	45
	SPMW 7072, 7077, 7078	35

Rule Updated Date

May 2, 2016

[^Top](#)

Item 2-D: Maximum Speeds: Hot Weather

During periods of extreme heat, conditions exist that could affect track structure. When advised by track bulletin that a Level 1 or 2 Heat Restriction is in effect, restrict train speed within the limits of the track bulletin as shown in the tables below. In addition, when the train is equipped with distributed power at the rear of the train, operate in synchronous mode or in

independent mode with distributed power 1-3 throttle notches below the lead consist in power and 1-3 throttle positions above the lead consist in dynamic brake, except when cresting a grade or when specific train handling procedures are required by local instructions.

Maximum Speeds: Hot Weather	
Level 1 Heat Restriction:	Restriction MPH:
Passenger trains, light engines, and freight trains averaging less than 90 tons per car/platform/unit/well (see Note below).	No Additional Restrictions
Freight trains averaging 90 tons or more per car/platform/unit/well in signaled territory (see Note below).	50

Level 2 Heat Restriction:	Restriction:
Chicago - All Metra trains. California - Metrolink, Pacific Surfliner, Capitol Corridor, Altamont Commuter Express(ACE), Caltrain and San Joaquin trains.	No Additional Restrictions
Passenger trains (except commuter trains listed above), light engines, and freight trains averaging less than 90 tons per car/platform/unit/well.	50
Freight trains averaging 90 tons or more per car/platform/unit/well.	40
Exceptions: When an exception to Item 2-D is shown on the subdivision page, the above restrictions do not apply to freight trains and the appropriate exception listed below applies instead.	
Exception 1: All freight trains operating on the subdivision while heat restriction bulletin is in effect	30
Exception 2: All freight trains operating on the subdivision while heat restriction bulletin is in effect	Restricted speed, not exceeding 10 MPH

Note: Each platform/unit/well of an intermodal car is to be considered as one car when calculating tons per car.

Rule Updated Date

May 2, 2016

[^Top](#)

Item 2-E: Maximum Speeds: Cold Weather

During periods of extreme cold, conditions exist that could affect track structure. When advised by track bulletin that a Cold Weather Restriction is in effect, restrict train speed within the limits of the track bulletin as shown in the table.

Maximum Speeds: Cold Weather		
Cold Weather Restrictions	Restriction MPH	
	Signaled Track	Non-Signaled Track

All Passenger trains, light engines, and freight trains averaging less than 90 tons per car/platform/unit/well.	No Restrictions	40
Freight trains averaging 90 tons or more per car/platform/unit/well.	40	40

Note: Each platform/unit/well of an intermodal car is to be considered as one car when calculating tons per car.

Rule Updated Date

May 2, 2016

[^Top](#)

Item 2-F: Maximum Speeds: Tons Per Operative Brake (TPOB)

Freight trains must not exceed the speed specified in the tables below. If a subdivision special instruction specifies a higher or lower TPOB speed, be governed by that speed.

When using the following tables, round your train's TPOB up to the next whole number. For example, 100.1 TPOB becomes 101 TPOB.

The TPOB as shown on the train graph will be used to determine the maximum speed of the train. If the train graph for TPOB is unavailable, or train consist is changed enroute and a new train graph is not provided, the TPOB of the train will be computed by dividing the train's tonnage by the total number of operative brakes in the train. There is 1 brake per conventional car (See **Table C** for other car types).

Table A applies to multi-platform/unit/well trains with less than 5 conventional cars.

Table B applies to all other freight trains.

Table C is used to determine the equivalent number of operative brakes for multi-platform/unit/well cars and for cars that are solid drawbar connected.

The following abbreviations are used in **Table A** and **Table B**:



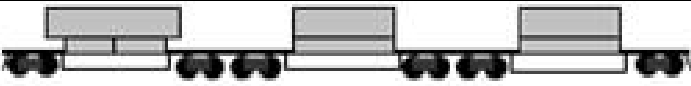

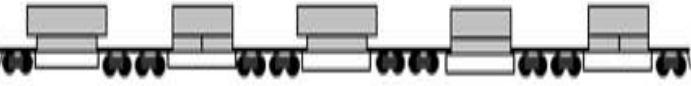

MSS: Maximum Subdivision Speed NR: No Restriction

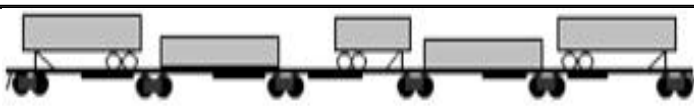

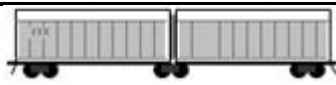

Table A –Multi-Platform/Unit/Well Trains with Less Than 5 Conventional Cars				
T P O B	Total number of platforms/units/wells & other cars			
	80 or less	81 to 110	111 to 140	141 or more
120 or less	NR	NR	NR	MSS minus 10 MPH
121 to 126	NR	NR	MSS minus 10 MPH	MSS minus 10 MPH
127 to 132	NR	MSS minus 10 MPH	MSS minus 10 MPH	MSS minus 10 MPH
133 or more	MSS minus 10 MPH	MSS minus 10 MPH	MSS minus 10 MPH	MSS minus 10 MPH

Table B – All Other Freight Trains			
Including Multi-Platform/Well Trains with 5 or More Conventional Cars			
T P O B	Maximum Speed	T P O B	Maximum Speed
100 or less	NR	111 to 120	MSS minus 10 MPH
101 to 110	MSS minus 5 MPH	Over 120	50 MPH

Note: Tables do not restrict train speed to below 50 MPH.

Use **Table C** to determine the equivalent number of operative brakes for multi-platform/unit/well cars and for cars that are solid drawbar or articulated connected and for other cars that are shown in the table .

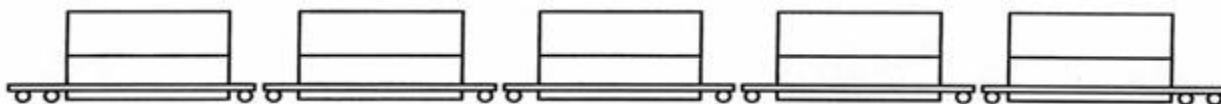
Table C - Equivalent Number of Operative Brakes	
Type of Equipment (Car Code)	Number of Operative Brakes
1. Well cars (Permanently connected solid drawbar or articulated equipment)	
A.  Equipped with five wells: (A, E, D, C and B) (Articulated Equipment) (P5A)	3 brakes
B.  Equipped with three wells (A, C and B) (3 Unit Articulated) (P3A)	2 brakes
C.  Equipped with three units (A, C and B) solid drawbar connected (P3A)	3 brakes
D.  Equipped with four units(A, D, C and B) solid drawbar connected. (P4A)	4 brakes
E.  Equipped with five units (A, E, D, C and B) solid drawbar connected. (P5A)	5 brakes
2. Spine Cars (Permanently connected multi-platform articulated equipment)	
A. 	2 brakes

	Three platform articulated spine cars (P3 *)	
		3 brakes
	B. Five platform articulated spine cars (P5 *) (* is a number)	
3.	TOFC and COFC flat cars (Two-unit solid-drawbar connected long car)	
		2 brakes
	A. Two cars with solid-drawbar (P2 *) (* is a letter or number)	
4.	Cars for automobiles (Permanently connected articulated equipment)	
		2 brakes
	Two unit articulated in series BTTX 880000-880419 and Automax (M* 1 or M* 3) (* is number of decks)	
5.	Superhopper car (C7T)	3 brakes
6.	Roadrailer™ cars	½ brake per van
		

The train consist shows each well (1A-E above) as a single car. The train consist shows other cars listed above (2 or 3) as one car. (See examples). When applying Item 2-D (Maximum Speed: Hot Weather) or Item 6 (Maximum Gross Weight Limitations) to calculate tons per platform/unit/well, use the total number of platforms/units/wells shown for cars listed in the above table. If it becomes necessary to cut the air brakes out on a car (control valve), count as 1 brake per Rules 30.2.2 & 32.7.4.

Examples of Train Consist: Table C – 1.

Intermodal Cars - Train Consist Articulated Multi-Well Car



DTTX 75292 LP5A ARTICULATED MULTI-WELL CAR

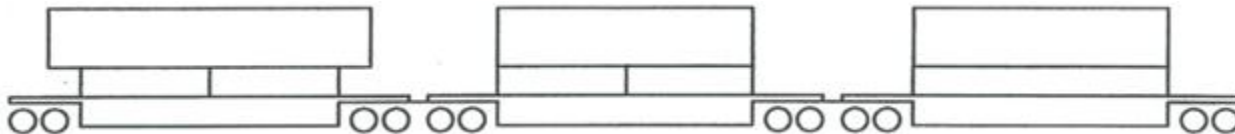
CONSISTS OF FOLLOWING 5 CARS

8 DTTA 75292 LP1A COFC XG077 05-701-96 RAMP MARION AR UNION PAC
75-MPH 61-TONS 62-FT 1-P 0.0-BRK 832-ATONS 1136-AFT
DO NOT HUMP

CSXU 683386 LK60 MIXFRT XG077 MARION AR CSX INTERMOD
EMHU 230112 LK70 MIXFRT XG077 MARION AR LANDST LOGIS

9	DTTE	75292 LP1A	COFC XG077	05-701-96 RAMP	MARION	AR UNION PAC
		75-MPH 62-TONS	62-FT 1-P	0.0-BRK 894-ATONS	1198-AFT	
		DO NOT HUMP				
	EMPU	289223 LK60	MIXFRT XG077		MARION	AR CLARKE LOGIS
	STXU	240104 LK70	MIXFRT XG077		MARION	AR PROFES TRANS
10	DTTD	75292 LP1A	COFC XG077	05-701-96 RAMP	MARION	AR UNION PAC
		75-MPH 59-TONS	62-FT 1-P	0.0-BRK 953-ATONS	1260-AFT	
		DO NOT HUMP				
	APLU	492709 LK60	MIXFRT XG077		MARION	AR SHARP FRE SY
	EMHU	230602 LK70	MIXFRT XG077		MARION	AR LANDST LOGIS
11	DTTC	75292 LP1A	COFC XG077	05-701-96 RAMP	MARION	AR UNION PAC
		75-MPH 76-TONS	62-FT 1-P	0.0-BRK 1029-ATONS	1322-AFT	
		DO NOT HUMP				
	EMPU	681487 LK60	MIXFRT XG077		MARION	AR SCHNEI NAT O
	STXU	238934 LK70	MIXFRT XG077		MARION	AR SHARP FRE SY
12	DTTB	75292 LP1A	COFC XG077	05-701-96 RAMP	MARION	AR UNION PAC
		75-MPH 67-TONS	62-FT 1-P	0.0-BRK 1096-ATONS	1384-AFT	
		DO NOT HUMP				
	APLU	492264 LK60	MIXFRT XG077		MARION	AR SHARP FRE SY
	CSXU	934228 LK70	DRYGDS XG077		MARION	AR CSX INTERMOD

Intermodal Cars - Train Consist
Solid Drawbar Connected or Articulated Multi-Well Car



DTTX 427102 P3A SOLID DRAWBAR CONNECTED MULTI-WELL CAR

CONSISTS OF THE FOLLOWING 3 CARS

1	DTTA	427102 LP1A	COFC JP017	41-801-96 RAMP	ICTF	CA UNION PAC
		70-MPH 78-TONS	72-FT 1-P	3.00-BRK 78-ATONS	72-AFT	
		NH DO NOT HUMP				
		DO NOT HUMP				
	HLXU	511982 LK4E	MIXFRT JP017		ICTF	CA HAPAG LLO AM
	HLXU	447026 LK40	MIXFRT JP017		ICTF	CA HAPAG LLO AM
2	DTTC	427102 LP1A	COFC JP017	41-801-96 RAMP	ICTF	CA UNION PAC
		70-MPH 79-TONS	72-FT 1-P	0.00-BRK 157-ATONS	144-AFT	
		NH DO NOT HUMP				

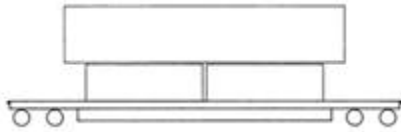
DO NOT HUMP

UESU	483829 LK50	MIXFRT JP017		ICTF CA HUB GROUP
TRLU	402070 LK40	MIXFRT JP017		ICTF CA PACER GLO LO
3 DTTB	427102 LP1A	COFC JP017	41-801-96 RAMP	ICTF CA UNION PAC
	70-MPH 80-TONS	72-FT 1-P	0.00-BRK 237-ATONS	216-AFT

NH DO NOT HUMP
DO NOT HUMP

MOAU	705 LK1E	MIXFRT JP017		ICTF CA MITSUI OSK L
FSCU	756099 LK40	MIXFRT JP017		ICTF CA HAPAG LLO AM
MOFU	55161 LK40	MIXFRT JP017		ICTF CA MITSUI OSK L

**Intermodal Car - Single Unit Well Car
(Considered a conventional car for train makeup purposes)**



34 DTTX	54000 LP1A	TOFC NZ020	05-801-96 RAMP	GLO2 IL UNION PAC
	70-MPH 80-TONS	70-FT 1-P	1.00-BRK 2273-ATONS	2283-AFT

SINGLE UNIT WELL CAR
NH DO NOT HUMP
DO NOT HUMP

NOSU	246829 LK10	MIXFRT NZ020		GLO2 IL APL LAN TRA
TRLU	211890 LK10	MIXFRT NZ020		CPRS MINNEAPOLMN APL LAN TRA
APHU	455705 LK50	MIXFRT NZ020		GLO2 IL APL LAN TRA

**Intermodal Cars - Train Consist
Multi-Platform Spine Car**



1 TTAX	553048 LP52	TOFC AX482	02-801-96 RAMP	PTLAREDO TX UNION PAC
	70-MPH 218-TONS	291-FT 5-P	2.00-BRK 218-ATONS	291-AFT

MULTI-PLATFORM SPINE CAR
DO NOT HUMP

NONZ	57098 LV77	MIXFRT AX482	LAREDO	TX SWIFT INTERM
EMHU	231127 LK70	CLNRS AX482	LAREDO	TX ALLIAN SHIPP
NONZ	541025 LV66	MIXFRT AX482	LAREDO	TX SWIFT INTERM

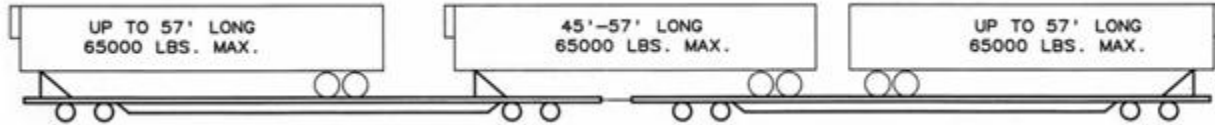
SNLZ 400592 LV77

CEREAL AX482

LAREDO

TX SCHNEI NAT C

Two-Unit Solid Drawbar Connected Long Car



17 TTEX	353221 LP28	TOFC RV185	01-800-96 RAMP	SPARKS	NV UNION PAC
---------	-------------	------------	----------------	--------	--------------

70-MPH	162-TONS	186-FT 2-P	2.00-BRK	1723-ATONS	2533-AFT
--------	----------	------------	----------	------------	----------

TWO-UNIT SOLID DRAWBAR CONNECTED LONG CAR

CC NO COUPLE TO 39FT. CAR

DO NOT HUMP

SNLZ 441782 LV77

MIXFRT RV185

SPARKS

NV SCHNEI NATIO

SNLZ 450448 LV77

MIXFRT RV185

SPARKS

NV SCHNEI NATIO

SNLZ 508399 LV78

AUTOPT RV185

SPARKS

NV SCHNEI NATIO

Rule Updated Date

May 2, 2016

[^Top](#)

[Union Pacific Rules](#)

[System Special Instructions](#)

ITEM 3: Trains Handling - Company Equipment

- [Item 3: Trains Handling Company Equipment](#)

Item 3: Trains Handling Company Equipment

1. Rail Trains

Equipment for handling continuous-welded rail, or continuous lengths of bolted rail, consists of permanently-coupled flat cars. Couplers are blocked against slack and are highly susceptible to damage from rough handling.

Buffers Cars

When equipment is loaded with rail, a buffer car is used at each end. The buffer car must not be a car containing hazardous materials or an occupied caboose or camp car. The ends of the buffer car must be at least as tall as the top row of rail to restrain the rail. The "B" end of the buffer car must not be next to the equipment loaded with rail. However, the rail train supervisor may authorize loaded equipment to be operated without a buffer to/from an unloading/loading site.

Exception: Trains LR1-50, LR2-50 and LR3-50 will utilize their attached bulkhead doors on each end to restrain rail.

Do Not Combine Rail Trains

Do not combine rail trains with other traffic. However, a Chief Engineer may authorize an empty rail train to be placed on the rear of a manifest train. A Chief Engineer may also authorize handling outfit cars and cars of track material or related items, not exceeding 70 cars, behind the CWR equipment.

Do not combine two CWR rail train sets on the following territories unless authorized by a Chief Engineer:

- Western Region
- Colorado Springs Subdivision
- Alamosa Subdivision
- Moffat Tunnel Subdivision
- Glenwood Springs Subdivision
- North Fork Subdivision
- Craig Subdivision
- Tennessee Pass Subdivision,
or
- Any track with curvature exceeding six degrees.

Loram Rail Train

Do not handle Loram rail train on any territory with curvature exceeding 16 degrees.

Movement of Loaded Rail Trains

Do not move loaded rail trains without authority from:

- The MW supervisor in charge on the rail train.
or
- MW train management.

The MW supervisor must accompany rail trains during loading and unloading operations. The MW supervisor is not required to accompany rail train movements to/from an unloading/loading site. When accompanied by a MW supervisor, train and engine crews must be alert for any signal or instruction from the MW supervisor. Before releasing a loaded rail train, the MW supervisor must ensure all rails are properly secured and buffer cars are in place.

Bad-ordered and/or Separated Equipment

If any rail trains or support equipment have been bad-ordered and/or separated from their mated car/s, the Maintenance of Way Operations Control (MWOC) Desk (402) 636-7434, must be notified immediately and the remainder of the rail train or support equipment should stay (as a unit) at that location until the repair is complete. The rail train manager must be notified if necessary repairs will require the rail train to be delayed more than 24 hours. The rail train manager can be contacted through the MWOC Desk.

Rail Train Equipment:

Rail Pick-up Units	
MP6853 (F-50)	UP913720 (C-50)
UP913498 (E-50)	UP913722 (D-50)
UP913671 (G-50)	UP904596 (M-54)
SSW97003 (S-40)	SPMW5396 (T-40)
SPMW6678 (U-48)	SPMW9013 (H-40)
SPMW9019 (K-40)	UP904697 (P-40)
UP904735 (W-50)	ADBF51140 (X-50)
SPMW9028 (J-40)	UP913523 (N-40)
SPMW9052 (I-40)	UP904534 (L-40)
CGW251000 (O-40)	RGAX4650 (Q-40)
RGAX4688 (R-40)	SPSX915 (SP-50)
LMIX701019 (LR-1) Train	LMIX701046 (LR-2) Train
LMIX701073 (LR-3) Train	

Rail Pick-up Units - Sets of Two

UP913524 & UP913525
UP913526 & UP913527
UP913528 & UP913529
UP913530 & UP913531
MP6858 & MP6863
MP6859 & MP6861
RGAX4691 & RGAX4693
SPMW6681 & SPMW6682
SPMW6683 & SPMW6684
SPMW6685 & SPMW6686
UP913532 & UP913533
UP913534 & UP913535
UP913536 & UP913537
Rail Pick-up Units - Sets of Three
LMIX701003/04/05 (Loram)
Rail Pick-up Units - Sets of Four
MP6800/MP6801/MP6802/MP6803
MP6804/MP6805/MP6806/MP6807
SPMW6650/SPMW6651/SPMW6652/SPMW6653
Rail Pick-up Units - Sets of Five
MP6864/MP6865/MP6866/MP6867/MP6868
SPMW5398/SPMW5399/SPMW5401/SPMW5403/SPMW5397
UP904563/UP904564/UP904565/UP904566/UP904567

2. Wrecking Derricks, Locomotive Cranes and Similar Equipment

Secure booms on wrecking derricks, locomotive cranes and similar equipment. Booms must be trailing or detached unless they are in work train service. A mechanical employee will accompany the wrecking derrick. A crane operator will accompany locomotive cranes and must ride either:

- In the crane.
- On the train that has the crane entrained.
or
- In a nearby vehicle having radio communications.

Inspect cranes at the following locations:

- Before leaving the initial terminal.
- Within 50 miles of the initial terminal.
- Within each 100 miles afterward.

During the inspection, ensure:

- Crane is headed in the right direction.
- Boom is properly secured.
- Equipment is being handled at the proper speed.

Booms must be disconnected on cranes, unless boom rest car specifically designed to enable the crane to move with the boom attached accompanies the crane. However, if the boom cannot be disconnected and cannot be in the trailing position, the train may be moved only as follows:

- Train management or an operating manager must authorize the movement.
- A crane operator must accompany the crane.
- Speed must not exceed:
 - 15 MPH if the crane operator is not riding the crane.
 - 30 MPH if the crane operator is riding the crane.
- Movement may only be made to the first location where it can be turned.

Placement in train:

- Place derricks and cranes within 10 cars of the engine and not ahead of more than 8000 tons.
- Place wrecking derrick consists as close to the rear of the train as possible and not ahead of more than 4000 tons.

The above restrictions do not apply to cranes loaded on flat cars, series MP 17000-17057, and MP 50064. These cranes may operate at 50 MPH. They may also operate with the boom in the non-trailing position, if properly secured.

3. Jordan Spreaders (entrained)

Head Jordan Spreaders in the direction the train is moving, unless in work trains. Inspect equipment carefully before moving, and frequently en-route. When entrained:

- Operate with wings always retracted, locked and secured with chain or cable.

- Maximum speeds:
 - 35 MPH forward.
 - 15 MPH reverse.*
- Only move in reverse direction to the first location machine can be turned.*
- Must be handled on the rear of train.*

***Exception:** Upon instructions from the MW supervisor, Jordan Spreaders entrained in work trains may be moved in reverse, to the designated location, at the speed authorized by the MW supervisor.

4. Snow Plows

Handle one-way (multiple track) and wedge (single track) snow plows as follows:

- When deadheading the plow and snow is not above the top of the rail locate the plow in trailing position on the rear of freight trains.
- When deadheading the plow and snow is above the top of the rail, locate the plow in leading position immediately ahead of the lead locomotive.
- When plowing snow, locate the plow in leading position immediately ahead of the lead locomotive. Do not pull a train when plowing snow.
- Do not operate snow plows through drifts when trains are approaching or passing on an adjacent track.
- Raise flangers when passing over bridges, highway crossings, railroad crossings, track car set-offs, high guardrails, frogs, and switches, and when passing through interlocking limits.
- Handle rotary snow plows in special trains or on the rear of freight trains with rotary blades in the trailing position.
- In switching movements, handle a snow plow alone or with only one car.

5. Two-axle Scale Test Cars

Handle two-axle scale test cars in a train immediately ahead of the rear car. Scale test cars must not be placed next to any loaded car containing hazardous materials. Handle two-axle scale test cars in separate trains if moving more than one.

6. Passenger, Business, and Outfit Cars

Train management may specifically instruct handling passenger, business and outfit cars differently than listed below. Do not handle passenger, business, or outfit cars while switching. In freight trains, handle:

- Outfit cars on the head end.
- Passenger and business cars on the rear end.

When handling passenger or business cars on the rear end of a freight train, comply with the following:

- Limit bulk commodity unit trains and trains consisting entirely of multi-platform/unit/well cars to a maximum of three passenger and/or business cars.
- Limit all other trains to a maximum of two passenger and/or business cars. In addition, trains must not:
 - Contain more than 20 multilevel cars.
 - Exceed 6000 feet (including locomotives and passenger and/or business cars).

If train management authorizes handling passenger or business cars on the head end of a freight train, comply with the following:

- A maximum of five of these cars may be entrained.
- When handling two or more of these cars if trailing tonnage behind these cars exceeds 3500 tons, separate these cars from each other by at least two loaded freight cars.
- Handle business cars UPP 106 (Shoshone) UPP 115 (Selma), UPP 203 (Idaho), and UPP 420 (Fox River) only on the rear of freight trains.
- Handle business cars UPP 210, UPP 252, EMDX 820, and EMDX 840 (mobile laboratory cars) at any location in freight trains.

7. Ballast Cars with Air-operated Ballast Gates

The following cars are ballast cars equipped with air-operated gates and an independent ballast air system:

- UP 901660-901830.
- UP 901900-901949.
- UP 901991-901999.
- UP 919000-920311.

Do the following to make the ballast air system inoperative when these cars are loaded and in transit:

- Stop the air supply to the ballast air system.
- Bleed the ballast air system reservoirs by opening an air drain valve on the ballast reservoirs, located on the "A" end of the car.
- Leave the ballast air line angle cocks open.

Before using the ballast air system, close all ballast reservoir drain valves. Charge the system only during short work train moves to an unloading site and during actual ballast unloading.

8. Engines Handling ITW (In-Track Welder)

- Employee in charge may impose more restrictive speed restrictions.
- ITW work equipment is equipped with independent air brakes.
- Employees in charge will occupy ITW and have control of the air brakes and have radio communication with the engineer.
- ITW is towed with a solid hitch and must not be placed in a train or handled with any other equipment.
- ITW is equipped with marker on rear.

9. Unmanned Geometry Measurement System (UGMS) UP910701

- Do not kick or hump.
- Must be the head car in the train.

Rule Updated Date

July 6, 2016

General Order

Effective Date: July 6, 2016

[^Top](#)

ITEM 4: Locomotive Information

- [Item 4: Locomotive Information](#)

Item 4: Locomotive Information

To determine Equivalent Powered Axles (EPA) and Equivalent Dynamic Brake Axles (EDBA) for a locomotive consist, use the EPA and EDBA numbers indicated on the train consist. The following table is to be used only when a train consist is not available or when a locomotive consist is changed.

Note: An Equivalent Axle is a locomotive's tractive effort or braking effort compared to one standard axle which has 10,000 lbs. tractive effort or 10,000 lbs. braking effort. The locomotive model is identified on the FRA Form F 6180-49A (blue card).

As used in these tables, the following abbreviations apply:

- CTE = Controlled Tractive Effort (limits locomotive to maximum of 110,000 lbs. tractive effort when equipped).
- PA = Powered Axles.
- EPA = Equivalent Powered Axles.
- EDBA = Equivalent Dynamic Brake Axles.
- FTE = Full Tractive Effort.
- TM c/o = Traction motor(s) cut out.
- Truck c/o = Truck cut out.

DC Locomotives					
Model	EPA	EDBA	Model	EPA	EDBA
B23-7	4.5	4.2*	GP40-2	5.0	3.9#
B30-7	5.0	4.2*	GP50	6.5	4.1*
B36-7	5.0	4.2	GP60	8.0	5.4
B39-8; B40-8	7.8	5.2	SD38-2	5.4	5.7*#
C40-8; C40-8W	7.8	5.2	SD40-2; SD40N; SD30Eco	7.1	5.9*#
C41-8; C41-8W	10.1	7.9	SD45	7.0	5.9
C44-9; C44-9W	11.5	7.9	SD50	9.2	6.1
ES40DC	10.1	7.9	SD59MX	7.1	8.1
ES44DC	11.5	7.9	SD60; SD60M	9.9	8.1**
SW1500	3.7	0.0	SD70/SD70M	10.4	8.6
MP15	4.0	0.0	SD75	10.3	8.6
GP9	4.0	3.0*#	DDA40X	10.3	8.0
GP15-1	3.9	0.0	E9	3.5	6.2
GP22; GP22Eco	5.1	0.0	SL1 (Slug)	4.0	0.0

GP38; GP38-2	4.5	4.0*#	S4B (Slug)	4.0	0.0
GP39-2	4.5	3.8	S3-2B (Slug)	4.0	0.0
GP40	4.5	4.0*#	S6-1 (Slug)	5.0	0.0

*May not be equipped with dynamic brakes.

May be equipped with standard range dynamic brakes.

** UP 2100, 2156, 2157, 2159-2168, 2170-2214 have 6.0 EDDBA.

Note: Traction motor cut out switches.

- DC locomotive traction motors must not be cut out to meet EPA or EDDBA limitations. Traction motors may be cut out only when they are defective. Locomotives may be isolated/shut down to meet EPA or EDDBA limitations.
- AC Locomotive traction motors 1, 2 & 3 may be cut out to meet EPA or EDDBA limitations, traction motors 4, 5 & 6 may only be cut out when defective.
- A tag must be placed on the lead unit and on the unit having the cut out traction motor stating that the traction motor has been cut out for the purpose of meeting equivalent axle restrictions. This is to ensure subsequent crews are aware that all dynamic brakes on that locomotive are inoperative.

AC Locomotives			
GE Model	Total # of Traction Motor(s) Cut Out	EPA	EDDBA
C44AC; C44/60AC; C44ACCCA	None	12.1	9.8
	1	11.0	8.0
	2	8.0	6.0
	3	6.0	5.0
C44AC (CP)	None	12.1	7.8
	1	11.0	7.0
	2	8.0	5.0
	3	6.0	4.0
C6044AC	None	12.1	11.7
	1	11.0	10.0
	2	8.0	6.0
	3	6.0	6.0
C44ACCTE; C45ACCTE; C45AH; ES44AC** & ES44AH** When in a lead consist or in a remote consist operating in the Full Tractive Effort (FTE) mode	None	12.1	9.8
	When in a remote consist operating in the Controlled Tractive Effort (CTE)	11.0*	9.8*
	1	11.0	8.0

mode*	2	8.0	6.0
	3	6.0	5.0
CW60AC	None	12.1	11.7
	1	12.0	10.0
	2	11.0	8.0
	3	8.0	6.0
**Foreign line ES44AC and ES44AH locomotives may not be CTE capable.			
AC Locomotives			
EMD Model	Truck Cut Out	EPA	EDBA
SD70MAC	None	10.4	8.1
	#1	6.0	5.0
SD70ACe; SD70AH *Operating in CTE mode.	None	12.0	10.5
		11.0*	10.5*
	#1	7.0	6.0
	#2	7.0	0.0
SD80MAC	None	13.0	10.0
	#1	7.0	5.0
	#2	7.0	0.0
SD9043AC	None	11.6	9.6
	#1	7.0	5.0
	#2	7.0	0.0
SD9043AC (CP)	None	12.0	9.0
	#1	9.0	5.0
	#2	9.0	0.0

Note:

On AC locomotives, dynamic brakes and wheel slip protection are still operative with either traction motors or a truck cut out. Therefore, cutting out axles or a truck on AC locomotives to meet equivalent axle limitations is not a non-complying condition.

If unable to determine the model of a locomotive or its EPA and EDBA, type =po in the MyUP search bar and select Go. In the tab that opens, enter the unit initials and number, then select submit.

Dynamic Brakes are designated in the report as follows:

A - AC

E - Extended Range (Flat)

F - Extended Range (Tapered)

N - Not Equipped

S - Standard Range (Flat) = #

T - Standard Range(Tapered) = #

X - Disconnected (No Dynamic Brake)

Z - AC with Dynamic Braking to 0 MPH

A unit in the locomotive consist that is not working or bad ordered will have the values in the EA PW and EA DB columns enclosed in parenthesis, e.g., "(12.1)", or displayed as dashes, "---", and will not be calculated in the locomotive totals.

Rule Updated Date

May 2, 2016

[^Top](#)

[Union Pacific Rules](#)

[System Special Instructions](#)

ITEM 5: Car Placement and Train Make-Up Restrictions

- [Item 5-A: Shipments of Excessive Height/Width](#)
- [Item 5-B: System Train Make-Up Requirements](#)
- [Item 5-C: Coupler Limits with Helper\(s\), Helper Placement, and Train Power Balance](#)

Item 5-A: Shipments of Excessive Height/Width

When train length and train make-up requirements permit, position dimensional loads, excess high wide shipments and unusual shipments (including those identified as high value on the consist) that require close attention as close to the engine as possible, but no closer than the sixth car from an occupied engine or caboose when train length permits. When positioning a shipment, each platform/unit/well of a multi-platform/unit/well car is to be considered as one car.

The following must be considered when placing excessive dimension loads, unusual shipments that require close attention or high value loads:

- **Train Make-Up requirements take precedence.**
- Equipment requiring handling on the rear end only.

Excessive Dimension Load

The following classes of equipment will be covered by instructions from a Manager Clearances and/or a track bulletin concerning movement:

- Excessive dimension load.
- or**
- Other unusual shipments that require close attention.

An "**Excessive Dimension Load**" is any load with a width more than 12 feet. At least twelve hours ahead of the train's departure, local managers must notify Train Management of the train in which they would like to place the excessive dimension load. Excessive dimension loads may only be scheduled to the train by Train Management. Upon Train Management's approval, the train dispatcher will issue a wide load notification track bulletin:

- To the train that will handle the excessive dimension load.
- To trains that may meet, pass or be passed by the train handling the excessive dimension load.

If the conductor does not receive a track bulletin covering such shipments, notify the train dispatcher before moving the train.

Dimensional Load

A "**Dimensional Load**" is any load with a width of 11 feet 0 inches to 12 feet 0 inches, inclusive, as shown on the train consist. If the consist includes a dimensional load, the conductor must conduct a job briefing with the train dispatcher before moving the train, reviewing all operating restrictions for their route.

The conductor must notify other crew members of the presence of both excessive dimension loads and dimensional loads before movement of the train.

Speed Restricted Areas

Trains handling dimensional or excessive dimension loads must not exceed 30 mph until load is beyond restricted area. Train dispatcher may authorize normal speed when other trains are not in the area to be met or passed. Restricted areas will be listed in subdivision special instructions.

Special Handling Guidelines for High Wide or High Value Loads

When there are High Wide or High Value Loads in the train that require close attention these shipments must:

Be inspected by a Mechanical representative at time of interchange or release from an industry to ensure loads are properly braced and secured for safe damage-free transportation.

- Be positioned in a train in accordance with system and subdivision special instructions.
- Not remain in a consist during switching operations, except when necessary to properly position the car in train.
- Not be kicked or humped.
- Not have other cars kicked or humped against these loads.
- Have air brake system charged and used when spotting/pulling these loads.
- Be set to a special hold track designated to hold/process such loads at terminals.

The air brake system must be charged and used when spotting/pulling these loads.

At terminals, these loads must be set to a special hold track designated to hold/process such loads.

Rule Updated Date

May 2, 2016

[^Top](#)

Item 5-B: System Train Make-Up Requirements

Train consist information will govern train make-up requirements.

When train consist specifies train type different from train symbol, train will operate as the train type identified on train consist.

Example: QHONL 14 will operate as a bulk train.

TPA and trailing tonnage limits (including tonnage behind entrained helper) shown on train consist must not be exceeded. Tonnage handled by helper(s) must be deducted from total tonnage to determine trailing tonnage behind lead consist.

If an enroute locomotive failure causes the TPA listed on the train consist to be exceeded, train may continue provided maximum TPA for any train category on that route is not exceeded.

If the coupler limit is exceeded, one or a combination of the following may be necessary:

- Road power rearranged (Move units from the lead consist to the helper.)
- Add power to the helper.
- Add additional helper consist.
or
- Reduce Tonnage.

In addition, the lead cars of a manifest train may be equipped with high strength couplers. If the first car behind locomotive is determined to have high strength couplers, the accumulated tonnage of that car and any consecutive cars equipped with high strength couplers may be added to the standard strength coupler limit, not to exceed the high strength limit.

High Strength Couplers

Each car is to be considered equipped with a standard type coupler unless it is known the car is equipped with high strength couplers. Coal cars, covered hopper cars and cars designed to carry TOFC vans and/or containers are equipped with high strength couplers.

If it is not known that a car is equipped with high strength couplers, it can be determined by looking at the coupler casting identification located on top of the coupler. A high strength coupler will have the letter "E", "EA" or "EX" as the last character of identification. Examples of high strength coupler identifications are E60HTE, SBE60CE, SBE60DE, EF512WEX.



If train consist is not available, contact yardmaster or other authority to determine maximum TPA and coupler limits allowed for route to be operated over.

Bulk Commodity Unit Trains

On territories where bulk TPA is higher than manifest TPA, bulk trains operating with more than one DC locomotive must not exceed TPA for manifest trains.

TPA requirements will not apply to loaded bulk commodity unit trains operating with less than 3 locomotives on the following service units and their respective subdivisions:

- North Platte
- Council Bluffs
- Chicago
- Twin Cities

1. Use the table below to determine general responsibility when a train does not meet train make-up requirements.

Train Make-Up Does NOT Meet the Train Make-Up Requirements				
	Notify Train Dispatcher	Notify yardmaster or proper authority	Speed is not to exceed 45 MPH	Correct Condition
Train was received from another railroad.	Yes	Yes, if applicable.	Yes	As directed by the train dispatcher or at the first scheduled work location.
Other trains (i.e. home terminal).	NA	Yes	NA	Train is not to leave terminal until condition corrected.
Placement error is discovered enroute.	Yes	NA	Yes	Correct condition at next available location.

Note: Trains (including trains received from another railroad) must meet train make-up requirements before entering code 'H' territory.

2. Maximum Train Length Restrictions

Maximum Train Length	
Length	Description
8,500 feet	Behind head end consist to head end of DP remote consist.
10,000 feet	Behind head end consist to EOT.

10,000 feet	Trains consisting entirely of single well cars and/or multi well cars listed in Item 2-F, Table C 1, from behind head end consist to head end of DP remote consist.
15,000 feet	Train with entrained EOT repeater. Distance between the repeater and the head or rear end of the train must not exceed 8,500 feet.
18,000 feet	Train with entrained DP remote consists must not exceed 18,000 feet between rear of head end consist and head end of rear DP remote consist. Maximum distance between rear of any consist to the head end of the next remote consist must not exceed 6,000 feet. Note: If train has no rear DP remote consist, the 15,000 foot restriction applies.
80 cars	Loaded trains containing 60 or more multilevel cars (Auto Racks) must not exceed a total of 80 cars, platforms, units or wells. Empty trains must not exceed 10,000 feet.
	Loaded or Empty Military Trains. Exception: Does not apply to military trains consisting entirely of intermodal equipment.

3. Maximum EPA/EDBA

Maximum EPA/EDBA						
Head End & Helper Consist EPA/EDBA Standard System Limits						
Train Type	Maximum EPA			Maximum EDDBA		
	Head end	Cut-in Helper	Rear Helper	Head end	Cut-in Helper	Rear Helper
Intermodal Equipment, only	62	48	24	28	40	28
Manifest Trains	52*	48	24	28	40	28
Empty Bulk Commodity Unit Train (or Loaded with some empty cars)	52*	36	24	33	40	28
Loaded Bulk Commodity Unit Train (no empty cars in train)	52*	55	28	33	40	28

* Limit head end EPA to 36 axles on ascending grades exceeding 1.9% on Bulk and Manifest trains.

Note: When EPA or EDDBA limits are exceeded by less than one whole number, round down to the next whole number.
 Example: 48.4 EPA becomes 48 EPA.

4. Car Placement Restrictions

Note:

The addition of helper(s) may not be used to provide relief from the following car placement restrictions. Any placement errors will be indicated on the 'detailed' train consist. If no errors are indicated, the detailed train consist will govern train make-up and helper placement. Additional car placement restrictions are also listed in Item 5-C. Car definitions are located at the end of Item 5-B.

Car Placement Restrictions	
Trains Total Trailing Tonnage Exceeds 7,000 tons	<p>Rear 1/4 of the train must not weigh more than 1/3 of the total weight (i.e. a 100 car train weighing 9000 tons must not have more than 3000 tons in the rear 25 cars. Round up other than whole numbers; a 102 car train weighing 9002 tons must not have more than 3001 tons in the rear 26 cars).</p> <p>Exception: This does not apply to:</p> <ul style="list-style-type: none"> • Trains made up entirely of cars weighing a minimum of 45 tons each. • Solid loaded or solid empty unit bulk commodity trains. • Trains made up entirely of intermodal equipment.
Trains Total Trailing Tonnage Exceeds 5,500 tons but not more than 12,000 tons	<p>Place cars listed below no closer than the 11th car/platform/unit/well behind the lead consist:</p> <ul style="list-style-type: none"> • Car that is 80 feet or longer and weighs less than 45 tons. • Multi-platform/unit/well cars having one or more empty platforms, units or wells. • Autoracks weighing less than 60 tons, except when train consists entirely of autoracks.
Trains Total Trailing Tonnage Exceeds 12,000 tons	<p>Place cars listed below no closer than the 16th car/platform/unit/well behind the lead consist:</p> <ul style="list-style-type: none"> • Conventional car weighing less than 45 tons. • Car that is 80 feet or longer and weighs less than 45 tons. • Multi-platform/unit/well cars having one or more empty platforms, units, or wells. • Intermodal flatcar 80 feet or longer in length loaded with a single trailer or container. This also applies to two unit, solid drawbar connected, twin flatcars (186 feet in total length) with a single trailer/container on either unit. • Two-unit solid drawbar-connected long cars (P2) if the total weight of the car is less than 120 tons. • Three and four-unit solid drawbar-connected multi-well cars (P3 / P4) with any well weighing less than 45 tons. • Autoracks weighing less than 60 tons, except when train consists entirely of autoracks.

<p>Long Car/Short Car</p>	<p>Do not couple freight cars 80 feet or longer to any car 45 feet or shorter when weight behind the coupling would exceed 3000 tons. However, this does not apply to:</p> <ul style="list-style-type: none"> • A locomotive crane 45 feet or shorter when coupled to a boom idler car 80 feet or longer. • A car listed in the train consist as 80 feet and the consist does not show a train placement error.
<p>Rear End Only Equipment</p> <p>Note: Does not apply to trains consisting entirely of passenger equipment.</p>	<p>Entrain equipment tagged, stenciled, billed or shown on the train consist as "Rear End Only" or "Rear Rider" as rear car of the train unless the mechanical department specifies that it must be the second car from the rear .</p> <p>This also includes the following equipment:</p> <ul style="list-style-type: none"> • Five unit solid drawbar cars (in series CN 677000-677139). • Gondola cars in series AMGX that are solid-drawbar connected. On the train consist, the symbol 2-P on AMGX cars indicates 2 units that are solid drawbar connected. <p>Passenger cars with initials MTDX must be placed in a train immediately ahead of the rear car of the train.</p> <p>When placed in a train with a rear helper, comply with the following:</p> <ul style="list-style-type: none"> • The helper must be placed immediately ahead of this equipment • The helper must be considered a rear helper in regard to restricted car limits. <p>One rear rider car allowed per train except M of W may have a maximum of 2 cars on rear of train.</p>
<p>Heavy-Duty Flat Cars with 8 axles or more</p>	<p>When gross weight of car exceeds 240 tons, at least one empty car must be positioned ahead of and behind the car unless waived by NCSC and Engineering.</p>
<p>Entrained Locomotive(s)</p>	<p>When locomotives are positioned in rear of a train, refer to Rule 31.7.1.</p>
<p>Shoving Platforms</p>	<p>Move shoving platforms (caboose), only at the rear of the train. However, this requirement does not apply when handling less than 20 cars and not exceeding 2500 tons.</p> <p>Any helper must be placed ahead of this equipment.</p>
<p>Helper Restriction</p>	<p>When helper is located to pull less than 1/2 the tonnage handled by the helper, the helper must be considered a rear end helper in regard to restricted car limits.</p>

5. The following train makeup restrictions apply west of Cheyenne, Denver and El Paso.

The tonnage behind the car must not exceed the listed tonnage.

Maximum Tonnage Behind Car		
Type of Car	Maximum Tonnage	
	Behind Car - 4500 Tons	Behind Car - 5500 Tons
Multiplatform Spine Car	One or more empty platforms	All platforms loaded
Multi-platform/well cars; Solid Drawbar Connected Multi-unit/well Cars; Single Unit Well Cars	One or more empty wells	
Two-unit Solid Drawbar Connected Long Car	One or more empty units	
Solid Drawbar Connected Multi-Well Car	Any well weighing less than 30 tons.	

6. Train Make-up and Helper Requirements

a. The following cars must not be entrained within any restricted car limits:

- Multi-platform/unit/well cars having one or more empty platforms, units or wells.
- Autoracks weighing less than 60 tons, except when train consists entirely of autoracks.
- Conventional car which weighs less than 45 tons. Does not apply to empty bulk commodity unit trains.
- Intermodal flatcar 80 feet or longer in length loaded with a single trailer or container. This also applies to two unit, solid drawbar connected, twin flatcars (186 feet in total length) with a single trailer/container on either unit.
- Car 45 feet or less coupled to a car 80 feet or longer regardless of weight (does not apply to multi-unit equipment unless individual units are 80 feet or longer).
- Two-unit solid drawbar-connected long cars (P2) if the total weight of the car is less than 120 tons.
- Three and four-unit solid drawbar-connected multi-well cars (P3 / P4) with any platform weighing less than 45 tons.
- Five-platform spine car with total car weight less than 175 tons.
- Three-platform spine car with total car weight less than 105 tons.

b. Restricted equipment above in part 'a' must be properly placed in the train. Use the tables below to determine proper placement. These restrictions are in addition to system train make-up requirements and car placement restrictions in Part 4.

Restricted Car Placement Behind Consist	
"L" Territories	
Tonnage behind lead locomotive consist and any entrained consist is:	Place restricted equipment no closer behind lead or helper consist than the:
5500 to 12000 tons	11th Car/Platform/Unit/Well
12001 tons and greater	16th Car/Platform/Unit/Well

'H' territories	
Tonnage behind lead locomotive consist and any entrained consist is:	Place restricted equipment no closer behind lead or helper consist than the:
3500 to 4000 tons	6th Car/Platform/Unit/Well
4001 to 4500 tons	11th Car/Platform/Unit/Well
4501 tons and greater	16th Car/Platform/Unit/Well

Restricted Car Placement Ahead of Consist	
Other than 'H' territories	
If cut-in helper EPA is:	Place restricted equipment no closer ahead of helper than the:
20 or Less	No Restriction
21 to 34	6th Car/Platform/Unit/Well
35 to 48	11th Car/Platform/Unit/Well
If rear helper EPA is:	Place restricted equipment no closer ahead of helper than the:
10 or Less	No Restriction
11 to 20	6th Car/Platform/Unit/Well Exception: Conventional car which weighs less than 45 tons does not apply.
21 to 24	11th Car/Platform/Unit/Well
"H" territories	
If cut-in helper EPA is:	Place restricted equipment no closer ahead of helper than the:
20 or Less	No Restriction
21 to 28	6th Car/Platform/Unit/Well
29 to 36	11th Car/Platform/Unit/Well
37 to 48	16th Car/Platform/Unit/Well
If rear helper EPA is:	Place restricted equipment no closer ahead of helper than the:
10 or Less	No Restriction
11 to 14	6th Car/Platform/Unit/Well Exception: Conventional car which weighs less than 45 tons does not apply.
15 to 19	11th Car/Platform/Unit/Well
20 to 24	16th Car/Platform/Unit/Well

Equipment Definitions:

Spine Car: Multi-platform articulated car.

Well Car: Multi-well articulated car, solid drawbar connected well car, or single well car.

Multi-unit Car: Multi-units permanently connected with solid drawbars. Units can be flat cars or wells.

Conventional: A car such as a gondola, hopper, intermodal flat car, box car, bulkhead flat car or single well car.

Rule Updated Date

May 2, 2016

[^Top](#)

Item 5-C: Coupler Limits with Helper(s), Helper Placement, and Train Power Balance

Trains that exceed the coupler limits for a territory must have locomotive(s) placed within or behind the trailing tonnage to avoid exceeding the designated coupler limit. When helper(s) will be cut-in, it is necessary to determine the proper balance between the lead power and the helper(s) for safe train operations.

The maximum number of Distributed Power remote consists is four.

Example:

'A Consist (Head End) - B Consist - C Consist - D Consist - E Consist (Rear Remote)'

Follow these steps to determine the correct helper placement, power balance and trailing tonnage for helper consists:

Step 1: Determine Total EPA: Add the EPA of the lead consist and all helper power together.

Use only the EPA that will actually be used on each locomotive:

$$EPA \text{ lead consist} + EPA \text{ helper consist(s)} = Total \text{ EPA}$$

Step 2: Calculate the TPA: Divide the total tonnage of the train by the total EPA:

$$Total \text{ Train Tonnage} \div Total \text{ EPA} = TPA$$

Note: When calculating TPA, use the actual EPA number, do not round off. When the resulting TPA is not a whole number round up to the next whole number.

Step 3: Determine placement of a cut-in helper:

When a helper is used, locomotives should be arranged to reduce tonnage handled by a single consist (i.e., use a 2 x 2 configuration rather than 3 x 1 when possible). When practicable, helper should not be cut-in unless

distance behind head end consist and head end of DP remote consist will exceed 8,500 feet.

To determine the tonnage the helper must be placed ahead of, use one of the following formulas, 3-A, 3-B or 3-C, as applicable.

Place helper as close to the calculated position as possible.

A helper may be moved up to 5 cars/platforms/units/wells ahead of or behind the calculated position to comply with restricted car requirements in Item 5-B Part 6 'Train Make-up and Helper Requirements' or Form 8620 Hazardous Materials Placement in Train requirements.

3-A: Single cut-in helper without rear helper:

$$TPA \times \frac{1}{2} \text{ helper EPA} = \text{tonnage to be placed behind cut-in helper}$$

Exception:

Trains with cut-in helper of 24 EPA or less are not required to use placement formula provided the cut-in helper:

- Is located within the rear 50% of the train's trailing tonnage.
- Complies with restricted car requirements and hazardous materials placement requirements.
- Is located within 8,500 feet of the head end consist.

3-B: Single cut-in helper + rear helper:

$$(\frac{1}{2} \text{ EPA cut-in helper} + \text{rear EPA}) \times TPA = \text{tonnage to be placed behind cut-in helper}$$

Exception:

Trains with cut-in helper of 24 EPA or less may be located at other than the calculated position provided the cut-in helper:

- Is located within the tonnage it is calculated to handle.
- Complies with restricted car and hazardous materials placement requirements.
- Complies with coupler limits.

To determine the tonnage range where the cut-in helper may be placed:

- 1) Determine calculated position of cut-in helper using the formula in step 3-B above.

$$(\frac{1}{2} \text{ EPA cut-in helper} + \text{rear EPA}) \times TPA = \text{tonnage to be placed behind cut-in helper}$$

- 2) Determine tons cut-in helper may be moved ahead of or behind the calculated position:

$$\frac{1}{2} \text{ EPA cut-in helper} \times TPA = \text{Tons cut-in helper may be moved from calculated position}$$

Example: 18,000 ton train is operating with lead consist of 36 EPA, single cut-in helper with 24 EPA and a rear helper with 24 EPA (total EPA of train is 84 EPA). The TPA is 215 and, using the formula in step 3-B above, the

calculated position of the cut-in helper is ahead of 7,740 tons. ½ EPA of the cut-in helper is 12.

$$12 \times 215 = 2,580 \text{ tons}$$

Cut-in helper may be moved 2,580 tons ahead of or behind the calculated position.

3-C: Two or more cut-in helpers:

- **Without rear helper:**

Start at the rear of the train and multiply the TPA by ½ the EPA of the first cut-in helper.

$$TPA \times \frac{1}{2} \text{ helper EPA of first cut-in helper} = \text{tonnage to be placed behind first cut-in helper}$$

- **With rear helper:**

Start at the rear of the train and add ½ the EPA of the first cut-in helper to EPA of the rear helper.
Multiply this figure by the TPA.

$$(\frac{1}{2} \text{ EPA of first cut-in helper} + \text{rear helper EPA}) \times TPA = \text{tonnage to be placed behind first cut-in helper}$$

For each additional cut-in helper the following applies. Add ½ the EPA of the next helper to the total EPA of all previous helper consists.

Multiply this figure by the TPA.

$$(\frac{1}{2} \text{ EPA of next helper to be cut-in} + \text{EPA of all previous helper consists}) \times TPA = \text{tonnage to be placed behind the helper consist being cut-in}$$

Step 4: Determine that trailing tonnage handled by each consist is less than the coupler limits, by using the formulas below.

- **Tonnage pulled by Lead Consist:**

Multiply the EPA of lead consist by the TPA. This figure must be less than the coupler limit for the territory.
Applies to trains with cut-in helper(s), (with or without rear helper), and trains with rear only help.

$$\text{EPA of lead consist} \times TPA = \text{tonnage pulled by lead consist}$$

(Must be less than coupler limit)

- **Tonnage pulled behind cut-in helper:**

Multiply ½ the EPA of the helper by the TPA. This number must be less than the coupler limit for the territory.

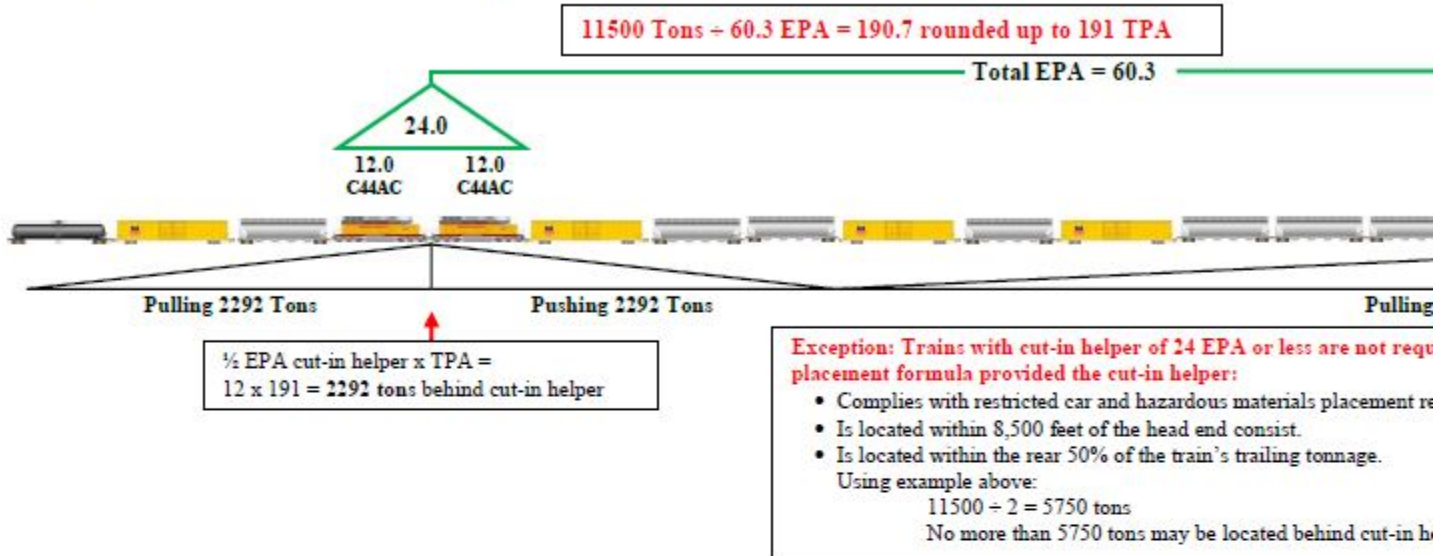
$$\frac{1}{2} \text{ EPA of helper} \times TPA = \text{tonnage pulled by helper consist}$$

(Must be less than coupler limit)

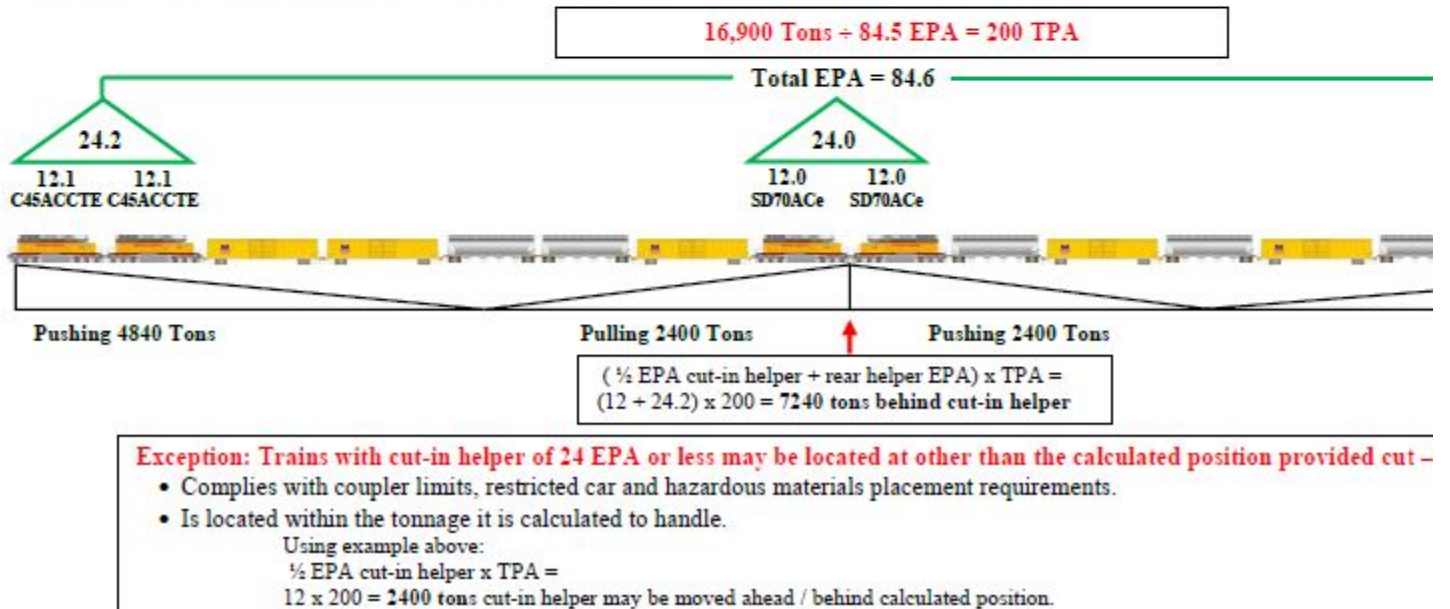
See following page for examples of trains with two or more cut-in helpers.

Example: Item 5-C, Step 3-C: Two or more cut-in helpers - Without rear helper

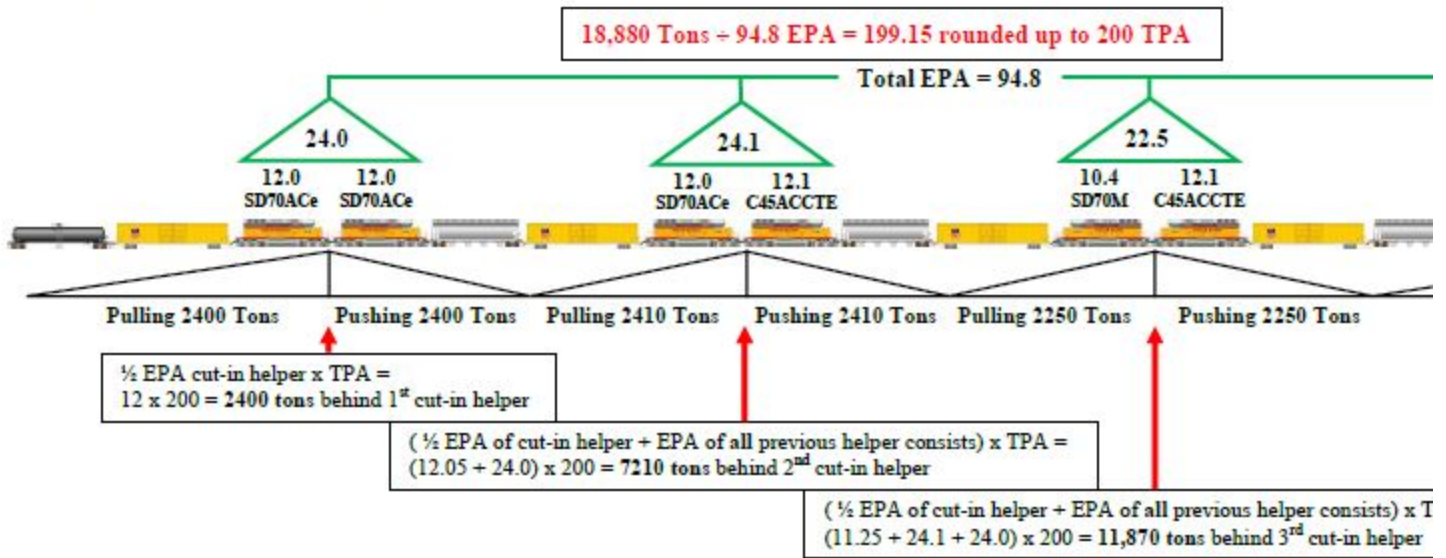
Example: Item 5-C, Step 3-A: Single cut-in helper without rear helper



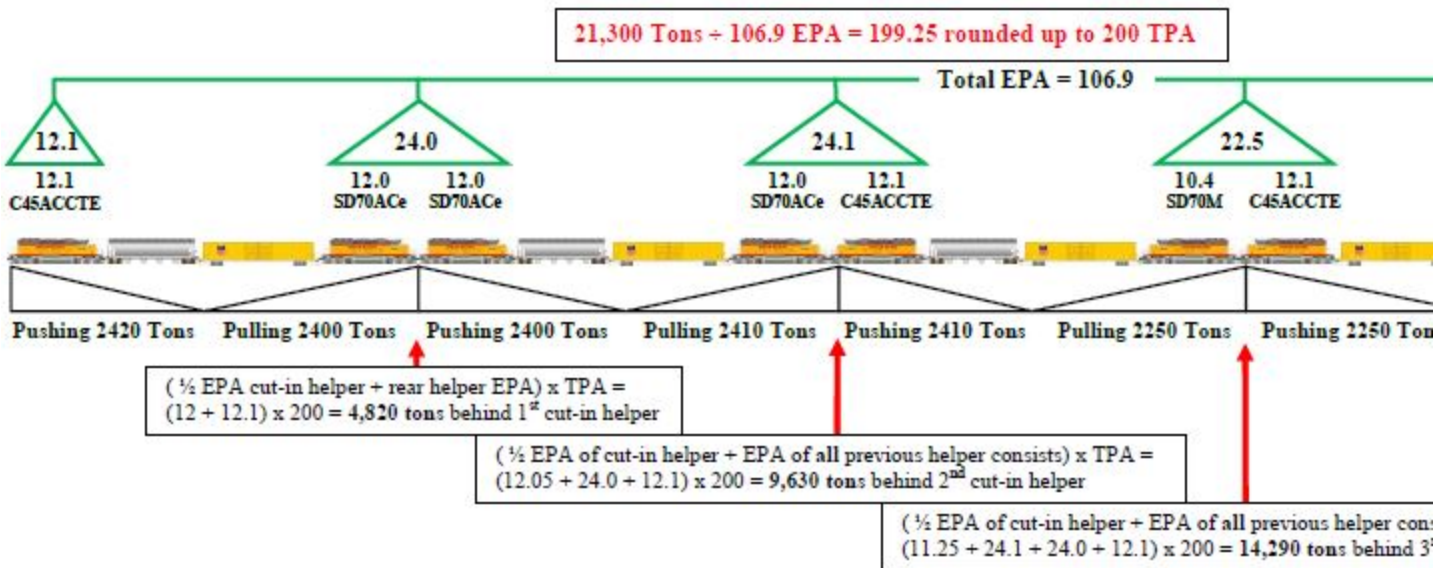
Example: Item 5-C, Step 3-B: Single cut-in helper + rear helper



Example: Item 5-C, Step 3-C: Two or more cut-in helpers - Without rear helper



Example: Item 5-C, Step 3-C: Two or more cut-in helpers - With rear helper



Rule Updated Date

May 2, 2016

[^Top](#)

ITEM 6: Maximum Gross Weight Limitations

- [Item 6: Maximum Gross Weight Limitations](#)

Item 6: Maximum Gross Weight Limitations

Maximum gross weight restrictions are shown in Timetable Item SI-12 for Subdivisions or SI-11 for Industrial Leads. They will indicate a maximum gross weight for a four-axle car with a coupled length of 53 feet 1 inch or longer and two letter restrictions (A through G and N through T).

Maximum gross weight for cars shorter than 53 feet 1 inch, articulated intermodal cars, six-axle cars, or eight-axle cars can be obtained from the Car Weight Restriction Table by referencing the car length, axle count, and letter restriction.

The gross weight of a four-axle car may not exceed the most restrictive case of either:

- maximum gross weight based on journal size or other mechanical considerations, or
- maximum gross weight for subdivision (SI-12) or industrial lead (SI-11), or
- maximum gross weight for car length and letter restriction from the Car Weight Restriction Table.

Examples:

SI-12 for Subdivision XXX states '143 Tons, Restrictions C and R.'

- For a four axle car 53'-1' long, the table indicates 158 Tons (row 11, column C). However, the car weight is restricted to 143 Tons by SI-12 maximum gross weight.
- For a four axle car 41'-11' long, the table indicates 139 Tons (row 4, column C). The car weight is restricted to 139 Tons.
- For an eight-axle car 74'-10' long, the table indicates 190 Tons (row 19, column R). The car weight is restricted to 190 Tons.

1. Cars Exceeding Authorized Weights

Cars that do not meet the specified weight limits and cars having more than eight axles are not permitted without specific authority of the Clearance Bureau in the National Customer Service Center.

2. Six-Axle Locomotives

Do not operate six-axle locomotives on subdivisions or industrial leads where the maximum gross weight limitation is less than 120 Tons.

3. **Cranes and Pile Drivers**

Do not operate relief outfit cranes, locomotive cranes, cranes, or pile drivers on subdivisions or industrial leads where the maximum gross weight limitation is less than 132 Tons.

4. **Multiplatform Cars**

Multiplatform cars are identified on the TCS train consist as either 'articulated' or 'solid drawbar connected.' Weights and lengths are given for each individual platform.

To determine maximum allowable gross weight

- For a solid drawbar connected car, treat each platform as a separate car and refer to the SI-11 or SI-12 restriction and the Car Weight Restriction Table.
- For an articulated car, refer to row 12 of the Car Weight Restriction Table. The maximum weight shown applies to the sum of the weights of any two adjacent platforms in the same car.

5. **Modifications**

Changes to maximum gross weight restrictions in Timetable Items SI-11 and SI-12 must be submitted to the Manager Operating Rules and approved by the Director Structures Design.

Car Weight Restriction Table

4-Axle and Intermodal Cars			Maximum Weight of Car (Tons) Based on Car Restrictions A-G. Applicable to either single car or multiple car movements. If weight in this table exceeds weight listed in Timetable SI-11 or SI-12, lesser weight in SI-11 or SI-12 controls. Car lengths per UMLER reporting rules, with fractional inches rounded to the higher inch. For example, 48'-8½" => 48'-9". NP denotes that the car may not be moved without specific authority of the Clearance Bureau. *For articulated intermodal cars, weight shown is the sum of the weights of any two adjacent platforms in the same car.							
			3.67 T/ft	3.41 T/ft	3.32 T/ft	3.13 T/ft	3.04 T/ft	2.97 T/ft	2.75 T/ft	
Row	No. Axles	Range of Car Lengths	A	B	C	D	E	F	G	
1	4	less than or equal to 34'-11"	NP	NP	NP	NP	NP	NP	NP	
2	4	35'-0" to 38'-10"	129	119	116	109	106	104	96	
3	4	38'-11" to 41'-10"	143	133	129	122	118	115	107	
4	4	41'-11" to 43'-0"	154	143	139	131	128	124	115	
5	4	43'-1" to 45'-8"	158	147	143	135	131	128	118	
6	4	45'-9" to 46'-11"	158	156	152	143	139	136	126	
7	4	47'-0" to 48'-8"	158	158	156	147	143	139	129	
8	4	48'-9" to 50'-0"	158	158	158	152	148	145	134	
9	4	50'-1" to 50'-11"	158	158	158	157	152	149	138	
10	4	51'-0" to 53'-0"	158	158	158	158	155	151	140	
11	4	53'-1" or greater	158	158	158	158	158	158	146	
12	Varies	Articulated Intermodal	158T or 143T Route	158*	158*	158*	158*	158*	158*	146*
			134T Route	134*	134*	134*	134*	134*	134*	124*
6-Axle and 8-Axle Cars			Maximum Weight of Car (Tons) Based on Car Restrictions N-T. Applicable to either single car or multiple car movements. Car lengths per UMLER reporting rules, with fractional inches rounded to the higher inch. For example, 61'-1½" => 61'-2". NP denotes that the car may not be moved without specific authority of the Clearance Bureau.							
Row	No. Axles	Range of Car Lengths	N	O	P	Q	R	S	T	
13	6	less than or equal to 61'-1"	NP	NP	NP	NP	NP	NP	NP	
16	6	61'-2" or greater	188	188	180	171	171	160	NP	
17	8	less than or equal to 64'-0"	NP	NP	NP	NP	NP	NP	NP	
18	8	64'-1" to 73'-3"	209	200	186	190	180	178	NP	
19	8	73'-4" to 84'-9"	222	212	193	201	190	189	NP	
21	8	84'-10" or greater	228	218	196	207	195	194	NP	

Rule Updated Date

May 2, 2016

[^Top](#)

[Union Pacific Rules](#)

[System Special Instructions](#)

ITEM 7: Employee Information

- [Item 7-A: Reference Documents](#)
- [Item 7-B: Qualifications of Certified Employees](#)

Item 7-A: Reference Documents

Employees must provide themselves with their own copy of the following and have them available for reference:

- This UPRR System Special Instructions document, which supersedes all previous System Special Instructions.
- Current applicable area timetable(s) for territories upon which operating.
 - Chicago Area Timetable #5, effective 0900C on 10/13/2014.
 - Council Bluffs Area Timetable #4, effective 0900C on 02/14/2011.
 - Dallas/Ft. Worth Area Timetable #5, effective 0900C on 09/28/2015.
 - Denver Area Timetable #5, effective 0900C on 09/28/2015.
 - Houston Area Timetable #6, effective 0900C on 01/26/2015.
 - Iowa Area Timetable #4, effective 0900C on 10/10/2011.
 - Kansas City Area Timetable #4, effective 0900C on 2/28/2011.
 - Livonia Area Timetable #1, effective 0900C on 01/26/2015.
 - Los Angeles Area Timetable #5, effective 0900C on 10/28/2013.
 - North Little Rock Area Timetable # 5, effective 0900C on 07/09/2012.
 - North Platte Area Timetable #4, effective 0900C on 03/19/2012.
 - Portland Area Timetable #6, effective 0900C on 10/13/2014.
 - Roseville Area Timetable #6, effective 0900C on 10/22/2012.
 - Salina Area Timetable #5, effective 0900C on 12/16/2013.
 - Salt Lake City Area Timetable #5, effective 0900C on 12/07/2015.
 - San Antonio Area Timetable #5, effective 0900C on 03/25/2013.
 - St. Louis Area Timetable #5, effective 0900C on 05/27/2013.
 - Sunset Area Timetable #4, effective 0900C on 04/14/2014.
 - Twin Cities Area Timetable #4, effective 0900C on 11/14/2011.
- Subdivision general order for each subdivision operating on. There is one general order in effect for each subdivision.
- Current system general orders.

Note: There are 10 system general orders in effect at any given time that employees are required to have. System general orders are categorized as follows:

SSI 1 – 3 (1 Time Comparison; 2 Speed Restrictions and 3 Trains Handling - Company Equipment)

SSI 4 - 5-C (4 Locomotive Information and 5 Car Placement and Train Make-up Restrictions)

SSI 6 - 9 (6 Maximum Gross Weight Limitations; 7 Employee Information; 8 Heavy and Mountain Grade Operations and 9 Use of Engine Horns)

SSI 10 - 10-B (10-A General Code of Operating Rules and 10-B (Reserved))

SSI 10-C - 10-D (10-C Air Brake & Train Handling Rules and 10-D Maintenance of Way Rules)

SSI 10-E - 10-G (10-E Safety Rules; 10-F Inspecting, Welding and Grinding of Rail and Track Components and 10-G Chief Engineer Instruction Bulletins)

SSI 10-H - 10-M (10-H Hazardous Materials Instructions; 10-I Programs & Policies; 10-J Commuter Train Operations; 10-K Main Track Switches; 10-L Additional Equipment Securement Requirements; and 10-M Mechanical Department.)

SSI 11 - 17 (11 Moveable Point Frogs; 12 Track Breach Protection; 13 Train Defect Detectors; 14 Operating With Foreign Railroads; 15 Work Orders; 16 Tornado Watch and Warning Instructions and 17 Accessing General Orders and Bulletins Electronically)

SSI 18 – 22 (18 Distant Signals; 19 Block and Interlocking Signals; 20 Automatic Cab Signals; 21 Slide Warning Indicator and 22 Roadway Signs)

SSI 23 – 24 (23 Security Alert Instructions and 24 California Proposition 65 Warning)

- All rule books must contain the current rules and the latest revised chapters/pages in the proper page sequence. The required rule chapters for each employee work group are listed below. All employees must have a current copy of and comply with the rules corresponding to one of these work groups. If you have responsibilities that require rules in addition to those listed for your work group, contact your supervisor.

Transportation (TE&Y)

1-17, Glossary, Index; 30-39, Glossary; 70-83; Glossary, Index.

Engineering and Communications

1-9, 14 & 15, Glossary, Index; 40-57, Glossary, Index; 70-83; Glossary, Index; Electrical Safety Rules.

Maintenance Operations (Mechanical)

1-9, 14-17, Glossary, Index; 30-39, Glossary; 42; 70-83; Glossary, Index; Electrical Safety Rules.

Clerical/General Office

1-5, Glossary, Index; 70-83; Glossary, Index.

Managers and Train Dispatchers

All chapters.

Current version:

- Chapters 1 through 17, effective 04/2015.
- Chapters 20 through 27 effective 08/2008.
- Chapters 30 through 39, effective 05/02/16.
- Chapters 40 through 57, effective 05/02/16.
- Chapters 70 through 83, effective 07/02/13.
- Instructions for Handling Hazardous Materials, Form 8620, effective July 2, 2013. Required for all employees examined on the General Code of Operating Rules. Conductors who transport hazardous materials must also have a copy of the current Emergency Response Guidebook (ERG) (2016) readily accessible while on duty.

- Track Welding Rules and Procedures for Inspecting, Welding, and Grinding of Rail and Track Components, effective 05/02/2016 required for track supervisors, section foremen, and track welders, grinders, and slotters.
- Electrical Safety Rules, effective July 1, 2010,
Required for Maintenance Operations, Engineering & Communications.
- Chief Engineer Instruction Bulletins effective 05/02/2016 required for all examined Engineering Department employees and Transportation Department managers.
- UPRR photo identification card (National Badge). Each National Badge expires after 6 years. If your National Badge is expired, contact your manager to get a new photo taken as soon as possible. The National Badge must be kept current whether the employee has a certification or not. A separate UP photo ID will not be required to be in their possession if the employee has a photo on their FRA certificate.
- A valid "FRA Certificate" card, if applicable, regardless of the type of service the employee is called to perform, must be in the employee's possession while on duty. Each FRA Certificate must have your photo on it to be valid. If you are issued an FRA certificate with no photo, contact your manager to get a new photo taken as soon as possible. Within 10 days after taking photo notify EC&L at 544-CERT. Restrictions listed on certificate must be complied with as required. Certified employees who wear contact lenses must have a pair of corrective glasses available while on duty.

Electronic Versions

Access and use of approved electronic media must be restricted in accordance with Rule 2.21 Electronic Devices.

Employees may utilize electronic media (Laptop, Tablet, Smartphone etc.) to access the approved electronic versions from the UP Website in lieu of printed copies. Follow these instructions to download rules or documents specified in SSI Item 7-A from the employee website:

1. Select **Departments**.
2. Under **Operating**, select **Operations Support**.
3. Under **Rules**, select **UP Rule Book**.
4. Follow instructions for desired download.

Also refer to **Item 17** for additional electronic files and instructions.

Employees must be able to access the electronic versions in a timely manner. This does not relieve employees from having the most current required revisions. Electronic versions must be capable of displaying information as intended, and Timetables and Form 8620 must be displayed in color.

When using electronic devices, the UPRR General Code version applies only when operating on UPRR trackage. UPRR crews operating on foreign lines must use the BASIC General Code of Operating Rules.

Rule Updated Date

May 2, 2016

[^Top](#)

Item 7-B: Qualifications of Certified Employees

A. Locomotive Engineers

Qualification is determined by a Designated Supervisor of Locomotive Engineers (DSLE) before the locomotive engineer is allowed to operate without direct on-board supervision. Depending on individual case-by-case circumstances, a DSLE may provide notice of qualification after a ride, face-to-face discussion, telephone conversation, or electronic notification with the locomotive engineer. However, if the locomotive engineer disagrees with the decision that he or she is qualified, a DSLE must ride with the locomotive engineer before qualification. The ride must be of sufficient duration over the most demanding portion of the territory to ensure proficiency.

1. Initial Familiarization

Prior to being qualified on a main track territory upon which the employee has never operated in the capacity of a locomotive engineer, he or she must make familiarization trips over the entire territory. The average number of familiarization trips necessary for qualification will be determined jointly by the Director Road Operations and DSLE responsible for that location. The average number of trips necessary is based on qualifying the typical locomotive engineer. Prior experience will be taken into account in determining the number of required trips. Certain non-mainline territories, i.e. industrial leads, have such generic and undemanding characteristics that familiarization with similar or more challenging territories may be used in-lieu of trip(s).

2. Maintaining Locomotive Engineer Proficiency

An engineer who has not worked any road trips in the past 12 months on territories in which the locomotive engineer was previously qualified must notify his/her DSLE.

When CMS calls an engineer to work a road trip for skills proficiency, a DSLE or a qualified engineer familiar with the territory will accompany the engineer. To the extent practicable, the DSLE will conduct an annual monitored ride during the trip pursuant to the FRA engineer certification requirements for engineers who do not normally work road trips.

3. Route Familiarization

Route familiarization is required in order to perform service as a certified locomotive engineer without the assistance of a pilot. After initial qualification on a specific route by completing the required familiarization plan specified by the DSLE, route familiarization is maintained by observing the route when performing service in any capacity (engineer or trainman) every 12 months. Other methods of maintaining route familiarization may also be specified by a DSLE.

Locomotive engineers are responsible for maintaining territory familiarization on the routes in their respective seniority districts.

Exception: Route familiarization as outlined above on the heavy and/or mountain grades of subdivisions listed in the following table, in any capacity, is required every 5 months.

In addition to the twelve month requirements, engineers subject to call on the following territories who have not worked both directions in the past five months must notify their manager. When notified, the manager will discuss the familiarization requirements to determine if familiarization trips are needed. An engineer who has not worked **both** directions during the preceding six months must notify CMS and their manager of this fact. Unless otherwise instructed by the DSLE assigned to the territory in question, the engineer is prohibited from operating the train unless accompanied by a DSLE or a qualified engineer familiar with the territory.

Subdivision	Between	Subdivision	Between
Los Angeles	Yermo and W. Riverside	Montana	Monida and Waco, Apex and Silver Bow
Cima	Cima and Kelso	Greeley	Lasalle and Cheyenne
Caliente	Crestline and Las Vegas	Green River	Grand Junction and Helper
Huntington	LaGrande and Huntington	Provo	Helper and Salt Lake
LaGrande	LaGrande and Hinkle	Lakeside	Ogden and Alazon
Canyon	Portola and Oroville	Evanston	Wahsatch and Echo
Brooklyn	Eugene and Oakridge	Tennessee Pass	Minturn and Dotsero
Valley	Dunsmuir and Redding	Laramie	Sherman and Cheyenne
Cascade	Oakridge and Klamath Falls	Colorado Springs	Denver and Colorado Springs
Black Butte	Klamath Falls and Dunsmuir	Mojave	Bakersfield and West Colton
Roseville	Roseville and Sparks	Yuma	West Colton and Indio
Moffat Tunnel	Denver and Tabernash Bond and Crater	SCRRA	Palmdale and Burbank Jct
Craig	Phippsburg and Craig	Coast	San Luis Obispo and Santa Margarita

4. Cut back engineers and engineers recalled to engine service or hostling positions

a. Many promoted engineers retain seniority rights as brakemen and/or conductors. Due to changes in work force requirements, some of these engineers may be cut back to brakeman or conductor assignments. When this occurs, these individuals may be permitted to operate the locomotive under the provisions of Rule 1.47 B. 1. if:

- Such activity does not interfere with their assigned duties.
- They have the consent of the working engineer of the crew.

Locations are not limited to territories where the employee was previously qualified. Only an engineer holding a valid Form 20106, Union Pacific Railroad FRA Certificate, is allowed to operate a locomotive or train. Seniority restrictions placed on an employee while an engineer remain in effect. A disqualified engineer must not operate a locomotive.

b. Cut back brakemen or conductors who have not worked as a locomotive engineer within the past 6 months must notify their DSLE and CMS of this fact. The DSLE may require the employee to make trips over a subdivision to maintain proficiency as an engineer.

c. During the first 12 months following completion of the engineer training program, an employee who has not worked any road trips as an engineer in the past 30 days, if called to work as a road engineer, must not accept the call unless so instructed by the DSLE. The DSLE will also determine what, if any, additional familiarization trips or training may be needed following any period in cut back or furloughed status within that 12 month period.

5. Recertification

Employees requiring recertification packets are to print the necessary forms from the Certification area of the TE&Y portal. Instructions on printing the documents for TE&Y employees are issued in service unit superintendent's bulletin.

150 days prior to the certification expiration date an item will be available on the Certification area of the TE&Y portal allowing the packet to be printed using a local printer. Initially it will only be available for employees who are certified and must complete required documents for recertification. Employees are required to follow the instructions contained in the packet and complete all required forms along with instructions for obtaining hearing and/or vision exams. All required items must be completed promptly, but no less than 60 days in advance of the certificate expiration date. All certified (licensed) employees must be re-certified (licensed) every three years. FRA Certificates will expire on the employee's birthday, every third year, after being initially certified. If the re-certification item is not available on the TE&Y portal, contact the licensing group at 544-2378 (area code 402).

Note: If you are unable to print the necessary forms, please consult your immediate supervisor for assistance. A separate UP photo ID will not be required if the employee has a photo on their FRA certificate.

B. Remote Control Operators (RCO)

1. Qualification

Qualification is determined by a Designated Supervisor of Remote Control Operations (DSRCO) before the RCO is allowed to operate without direct supervision. Depending on individual case-by-case circumstances, a DSRCO may provide notice of qualification after a ride, face-to-face discussion, telephone conversation, or electronic notification with the RCO. However, if RCO disagrees with the decision that he or she is qualified, a DSRCO must ride with the RCO before qualification.

2. RCO position not worked in the previous 6 months

A Remote Control Operator who has not worked as a RCO in the previous 6 months must notify a service unit manager:

- Before being placed on a board that requires the employee to work a RCO position.
- If called to work a RCO position.

Employees must also inform the manager if their skill as an RCO has been evaluated in the past 12 months. The manager will determine if the employee needs familiarization after a discussion with the employee.

3. Remote Control Operators on selected jobs

The service unit will list jobs that require additional training and familiarization. Additional air brake and train/train dynamics training may be required for these jobs. The RCO is responsible for notifying a manager when placing himself or herself on a position or when force assigned to a position listed. The lead DSRCO will determine what, if any, training and familiarization is required. Remote control operators must not exceed the limits of their qualification and must inform the manager of limits, if requested to exceed qualification.

C. Conductors

1. Initial Certification

Train and engine service employees hired on or before December 1, 2012, are "grandfathered" as certified conductors and are fully qualified to perform conductor service under federal regulation. Grandfathered conductors will be evaluated and tested for re-certification (licensing) purposes no later than June 1, 2015.

Train service employees hired after December 1, 2012, must pass all proficiency, knowledge, and territory familiarization training and testing required by law and the Company's Conductor Certification Program to work as a certified, fully qualified conductor.

2. Territory Familiarization on Main Track

Conductors are responsible for maintaining territory familiarization on the routes in their respective seniority districts.

Each person who is called to perform service as a certified conductor must meet the territory familiarization requirements on the pertinent segment(s) of main track where they work. Route familiarization is maintained by observing the route when performing service in any capacity (engineer or trainman). Training trip(s) may be required if territory familiarization has expired and can include the use of technology and/or job aids. Employees must pass a territorial examination covering the operating conditions of main track territory where they have never operated, and for territory not traversed for a period of twenty-four (24) months or longer prior to working over that territory. Conductors must notify CMS and their assigned manager if they do not meet these territorial familiarization requirements prior to protecting service.

Exception: A pilot is not required if a conductor is working on a section of track with an average grade of less than 1% over 3 continuous miles, and any one of the following applies:

- The maximum distance the locomotive or train will be operated does not exceed one mile.
- The maximum authorized speed for any operation on the track does not exceed 20 miles per hour.
- Operations are conducted under operating rules that require every locomotive or train to proceed at a speed that permits stopping within one-half the range of vision of the locomotive engineer.

3. Territory familiarization on other than main track

If a conductor has never worked on a segment of track or has not been over that track for a period of twenty-four (24) months or longer, the conductor will be:

- Accompanied by a qualified employee who meets the territorial requirements where practicable.
- Provided an appropriate job aid or
- Receive a detailed job briefing from an employee familiar with the territory.

D. Recertification (All Classes of Services)

Employees requiring recertification packets are to print the necessary forms from the Certification area of the TE&Y portal. Instructions on printing the documents for TE&Y employees are issued in service unit superintendent's bulletin.

150 days prior to the certification expiration date an item will be available on the "Certification" link of the TE&Y portal allowing the packet to be printed using a local printer. The packet will only be available for employees who are certified and must complete required documents for recertification. Employees are required to follow the instructions contained in the packet and complete all required forms as well as follow the instructions for obtaining hearing and/or vision exams. All required items must be completed promptly, but not less than **60 days in advance of the certificate expiration date**. All certified (licensed) employees must be re-certified (licensed) every three years. FRA Certificates will expire on the employee's birthday, every third year, after initial certification. If the re-certification information is not available on the TE&Y portal, contact the

licensing group at 402-544-2378.

Note: If you are unable to print the necessary forms, please consult your immediate supervisor for assistance. A separate UP photo ID will not be required if the employee has a photo on their FRA certificate.

All certified employees must maintain a valid, unexpired certificate. Failure to do so may result in an interruption in service. It is the individual employee's responsibility to ensure that certification does not expire.

It is the individual employee's responsibility to ensure availability to perform service by maintaining valid certification(s). Employees must carry an unexpired FRA Certificate for freight and/or passenger service while on duty.

Employees who are certified for multiple TE&Y classes of service will be issued one certificate listing each class of service the employee is qualified to perform. In order to maintain multiple classes of service, employees will be required to satisfy all proficiency testing and regulatory recertification requirements on a periodic basis (i.e., hearing, vision, motor vehicle, certification ride, etc.). Multiple certificates will all have the same expiration date.

Recertification is required within three years of the expiration date listed on the employee's FRA Certificate. Employees will have access to recertification instructions via the certification link in TE&Y portal 150 days prior to the expiration date on his/her license. If the re-certification item is not available on the TE&Y portal, contact the licensing group at 402-544-2378.

All requirements must be completed promptly, but no less than 60 days prior to the expiration of the certification.

E. Familiarization and Pilot Authorization

All certified TE&Y employees who bid, place, or are forced to a new assignment must contact a manager to arrange for completion of any necessary company or regulatory familiarization requirements prior to working the new assignment if :

1. They have never worked the territory
or
2. Their territory familiarization or territory exam for that assignment has expired.

The TE&Y employee must contact a service unit manager to authorize the use of a qualified pilot in advance of call or reporting for the assignment. Failure to comply with these instructions may subject the employee to discipline.

Rule Updated Date

May 2, 2016

[^Top](#)

[Union Pacific Rules](#)

[System Special Instructions](#)

ITEM 8: Heavy and Mountain Grade Operations

- [Item 8: Heavy and Mountain Grade Operations](#)

Item 8: Heavy and Mountain Grade Operations

1. Descending Grade Requirements

Cresting the Summit "CG"

When freight trains (leading locomotive) and light locomotive consists crest the summit of grades listed below as "CG", speed must be at least 5 MPH below the maximum authorized speed.

Descending Grades

When operating freight trains or light locomotive consists on descending grades between locations listed below as 1% or 2%, if train speed reaches 5 MPH above maximum authorized speed:

- Stop movement immediately, using an emergency brake application.
- When operating light locomotives consists, actuate and fully apply independent brake.
- After stopping, apply hand brakes as required to prevent movement.
- Do not move the train until authorized by a Designated Supervisor of Locomotive Engineers.

Refer to Rule 34.2.10 Emergency Brake Applications.

2. Two-Way EOT Requirements

The following restrictions are applicable to those grades listed below:

1% Trains departing from a designated crew change location for that train, if entering territory listed in the following table, must be equipped with an operable 2-way end-of-train telemetry device (rear-end unit and head-end unit) or equivalent device. However, the following trains do not require a 2-way EOT or equivalent device to operate on these grades:

- Passenger trains.
- Local trains not exceeding 4000 trailing tons, operating within a single designated crew district, and not operating over a section of track indicated as 2%.
- Work trains not exceeding 4000 trailing tons and not operating over a section of track indicated as 2%.

Refer to rule 32.9.1 for further information.

2% Trains operating on the following grades listed below must be equipped with an operable 2-way end-of-train telemetry device (rear-end unit and head-end unit) or equivalent device. However, passenger trains do not require a 2-way EOT or equivalent device. Refer to Rule 32.9 End of Train Telemetry System for further information.

Note: For 1% and 2% grades also refer to rule 32.9.1.

Subdivision/Industrial Lead	Location (Applies for movements in both directions between/at the points unless specified otherwise.)	Applicability Code
Altoona	St. Paul and Hammond	1%
Bend	BNSF MP 102.5	CG
Bingham	Robbe and Midvale	2%
Bingham Ind. Lead	Leadmine and Welby	CG
Black Butte	Azalea, MP 331.5, Southward	CG
	Grass Lake, MP 367.7, Southward	CG
	Azalea and Dunsmuir	2%
	Klamath Falls and Azalea	1%
Caliente	Crestline and Las Vegas	1%
Canyon	Portola and Oroville	1%
Carrizozo	Vaughn and Alamagordo	1%
Cascade	Cascade Summit, MP 537.5, Northward	CG
	Cascade Summit to Oakridge	1%
Cedar City	Cedar City , Eastward	CG
Chevron Industrial Lead	MP 8.00 and Chevron	1%
Cima	Cima, MP 253.8, Westward	CG
	Cima and Kelso	2%
	Las Vegas and Arden	1%
Clifton	Clifton and Guthrie	2%
Coast	Cuesta, MP 235.7, Westward	CG
	MP 236.6, Eastward	CG
	San Luis Obispo and Santa Margarita	2%
	San Luis Obispo and King City	1%
Colorado Springs	Palmer Lake, MP 50.0, Southward	CG
	Sedalia and Colorado Springs	1%
Comstock	Iron Mountain, MP 13.0, Eastward	CG
	Iron Mountain and Iron Springs	2%
Condon	MP 8.00, Northward	CG

Cumberland Ind. Lead	MP 9.4 Northward	CG
De Soto	Piedmont and De Soto	1%
Dry Valley	MP 25.0 Southward	CG
Elkol Industrial Lead	MP 2.4 Northward	CG
Evanston	Wahsatch, MP 928.0, Westward, Track 1	CG
	Wahsatch and Ogden	1%
Falls City	Atchison and Nebraska City	1%
Gay	Gay, MP 14.5 Westward	CG
	Gay and Nine Mile	1%
Glenwood Springs	Bond and Grand Jct.	1%
Gila	Estrella and Bosque	1%
Greeley	Cheyenne and Greeley	1%
Green River	Grand Jct. and Helper	1%
Huntington	Encina, MP 352.0, Both directions	CG
	Telocaset, MP 312.5, Westward	CG
	Pleasant Valley and Pritchard Creek	2%
	Pleasant Valley and Durkee	1%
La Grande	Kamela, MP 271.3, Both directions	CG
	Kamela and Hilgard	2%
	Kamela and Huron	2%
	Minthorn and Hilgard	1%
Lakeside	MP 645.40, Eastward	CG
	MP 616.3, Westward	CG
	Lucian and Wells	1%
Laramie	Bufford, CP W536, Eastward, Tracks 1 & 2	CG
	Hermosa, CP W547, Westward, Track 3	CG
	Sherman and Wycon	1%
	Hermosa and Red Buttes	1%
Limon	Sharon Springs and Mesa	1%
Livonia	W. Bridge JCT and E. Bridge Jct.	1%
Lone Pine	Cantil and Searles	1%
Lordsburg	PFE Yard and Lordsburg	1%
Los Angeles	Silverwood, BNSF MP 56.6, Westward	CG
	Summit and San Bernadino	2%
	Riverside Jct. and Barstow	1%

Lufkin	Appleby and Tenaha	1%
Modoc	Ambrose and Canby	CG
	Ambrose and Canby	2%
Moffat Tunnel	MP 50.1, Eastward	CG
	MP 57.0, Westward	CG
	MP 138.5, Eastward	CG
	MP 154.0, Westward	CG
	East Portal and Rocky	2%
	Winter Park and Fraiser	2%
	Crater and Bond	2%
	Denver and Bond	1%
Mojave	MP 359.5, Northward	CG
	Cameron, MP 371.5, Southward	CG
	Hiland, MP 463.8, Southward	CG
	Through Silverwood connector track Southward, MP 464.7	CG
	Hiland and West Colton	2%
	Cable Xover and Mojave	2%
	Colton and Bakersfield	1%
Montana	Monida MP 264.0	CG
	Apex MP 340.25	CG
	Humphrey and Dubois	2%
	Apex and Navy	2%
	Feeley and Silver Bow	2%
	Idaho Falls and Silver Bow	1%
Nampa	Ticeska, MP 358.0, Westward	CG
	Reverse, MP 391.5, Eastward	CG
	Mt. Home and Bliss	1%
Oak Creek Industrial Lead		2%
Oakland	Tracy and Altamont	1%
Peoria	Pottstown and Pioneer	1%
Pocatello	At Kemmerer	1%
Powder River	S. Morrill and E. Caballo Jct.	1%
Provo	MP 638.2, Eastward	CG
	MP 651.8, Westward	CG

	MP 673.3, Westward	CG
	Kyune and Helper	2%
	Summit and Castilla	2%
	Helper and Springville	1%
Roseville	MP 136.5, Westward, Track 1	CG
	MP 191.0, Westward, Tracks 1 & 2	CG
	MP192.0, Eastward	CG
	Norden and Loomis MP 114.0	2%
	Norden and Truckee	2%
	Sparks and Roseville	1%
Sanderson	Maxon and Altuda	1%
SCRRA Trackage	Vincent 61.8	CG
	Vincent and Palmdale	2%
	Vincent and Paris	2%
	Burbank Jct. and Palmdale	1%
Sedalia	Dow and Smithton	1%
	Rock Creek Jct. and Pleasant Hill	1%
Shafter	Wendover and Wells	1%
Sharon Springs	Brookville and Sharon Springs	1%
Spokane	Shiloh and Eastport	1%
Stauffer Industrial Lead	Stauffer and Big Island	1%
Sunnyside	Sunnyside and Banning	2%
Tennessee Pass	MP 281.8, Westward	CG
	MP 290.3, Westward	CG
	Tennessee Pass and Minturn	2%
Toyah	Sweetwater and Sierra Blanca	1%
Valentine	Alpine and Marfa	1%
	Sierra Blanca and McNary	1%
Valley	Dunsmuir and Redding	1%
Wallace	Spokane and Eastport	1%
Yoder	Yoder and Egbert	1%
Yuma	Beaumont, MP 561.4, Westward	CG
	MP 566.2, Eastward	CG
	Beaumont and Garnet	2%
	Beaumont and MP 545.1	1%

Rule Updated Date

May 2, 2016

[^Top](#)

[Union Pacific Rules](#)

[System Special Instructions](#)

ITEM 9: Use of Engine Horns

- [Item 9: Use of Engine Horns - Quiet Zone](#)

Item 9: Use of Engine Horns - Quiet Zone

Quiet Zone

Quiet zones are designated in the timetable. Do not sound the horn for grade crossings within limits or at locations designated on the subdivision page.

Sounded Horn

Horn may be sounded to provide a warning to animals, vehicle operators, pedestrians, trespassers or crews on other trains in an emergency situation when engineer believes such action is appropriate in order to prevent injury, death, or property damage.

Horn must be sounded when:

- Employees are working on or near the track.
- Meeting or passing the head end or rear end of a train in the vicinity of a grade crossing.
- Notified that automatic warning devices are malfunctioning or disabled or crossings require additional precautions.
Sound whistle signal 5.8.2(7) regardless of any prohibition.

Rule Updated Date

May 2, 2016

[^Top](#)

[Union Pacific Rules](#)

System Special Instructions

ITEM 10: Rule Supplements & Amendments

- [Item 10: Rule Supplements & Amendments](#)
- [Item 10-A: General Code of Operating Rules, Chapters 1 to 19](#)
- [Item 10-B: Reserved](#)
- [Item 10-C: Air Brake & Train Handling Rules, Chapters 30 to 39](#)
- [Item 10-D: Maintenance of Way Rules, Chapters 40 to 69](#)
- [Item 10-E: Safety Rules, Chapters 70 to 89](#)
- [Item 10-F: Instructions for Inspecting, Welding and Grinding of Rail and Track Components Chapters 100 to 119](#)
- [Item 10-G: Chief Engineer Instruction Bulletins, Chapters 120 to 140](#)
- [Item 10-H: Hazardous Materials Instructions](#)
- [Item 10-I: Union Pacific Railroad Policies](#)
- [Item 10-J: Commuter Train Operations](#)
- [Item 10-K: Main Track Switches](#)
- [Item 10-L: Additional Equipment Securement Requirements](#)
- [Item 10-M: Mechanical Department \(Maintenance Operations\)](#)

Item 10: Rule Supplements & Amendments

Critical Rules for Operating and Supply Departments

Critical Rules for All Employees	
Rule Number	Rule Description
1.13	Reporting and Complying with Instructions
74.3	Cell Phone/Electronic Device
74.5	Seat Belts
	Violations that result in property damage meeting or exceeding the FRA reportable monetary threshold.

Critical Rules - Transportation	
Rule Number	Rule Description
1.47	Failure to Maintain Conductor's Log (Missing Entries)
2.21	Electronic Devices
5.13	Blue Signal Protection
6.5	Shoving Movements
6.5.1	Remote Control Movements (Unprotected Shove)

6.7	Remote Control Zone (Fouling an active RCL zone without permission)
6.7A	Remote Control Zone – System Special Instructions (Failure to maintain a zone log when required)
6.25	Movement Against the Current of Traffic
6.27	Restricted Speed
6.28	Movement on Other Than Main Track
7.1	Switching Safely and Efficiently
8.2/8.3/8.8/8.9.1/8.20	Switches and Derails (Not resulting in FRA reportable incident)
9.5	Stop Signal
9.15	Track Permits
10.1	Authority to Enter CTC Limits
15.2 Form B	Protection by Track Bulletin Form B
7.6/32.1/32.1.1/32.1.4	Securing Cars, Engines, Trains, etc.
32.1.2/32.1.3/32.2.1	Securing Cars, Engines, Trains, etc. (Failure to apply handbrakes, airbrakes, or locomotive brakes)
35.3.3/35.4.1/35.4.4	RCL Operations
81.2.2	Sufficient Distance (Failure to separate equipment required distance)
81.4.2	Getting On and Off Moving Equipment
81.5.4	Understanding Between Crew Members Before Crossing Through or Fouling Equipment
81.8.1	Avoiding Fouling Hazards
81.13.1	Working Between Equipment
81.13.2	Coupler Adjustment (Use of feet to adjust coupler)
SSI Item 8	Heavy and Mountain Grade Operations
SSI Item 10K/8.3	Switch Left Open in Non-Signaled Territory

Critical Rules - Maintenance of Way / Engineering Employees	
Rule Number	Rule Description
32.1.4	Operating and Air Brake Instructions (Applies to any MofW or work equipment handling rail cars)
42.2.2	Other Speed Requirements
42.3	Main Track Authorization
42.6	Grade Crossings
74.6.1	Back-Up Moves by Engineering Employees and Contractors
78.8	Operating Booms Near Power Lines
122.4.1.1	Wearing Fall Protection
122.4.1.2	Using Fall Protection
122.4.1.6	Working Over or Adjacent to Water
122.4.1.7	Working on Bridges over RR and Roadways
135.3.2	Lockout/Tag out Procedures
135.4	Maintenance or Repair of Running Equipment
136.3	Job Briefing
136.3.1	Job Briefing for Roadway Work Groups

136.4	On Track Safety Procedures
136.4.1	Exclusive Track Occupancy
136.4.2	Inaccessible Track
136.4.3	Individual Train Detection
136.4.4	Train Approach Warning
136.4.6	Flag Protection
136.4.7	Train Coordination
136.4.8	Automatic or Symbol (Z) Manual Interlockings
136.4.9	Train Approach Warning System (TAWS)
136.7.3	Work Zone around Machines
136.7.4	Safe Working Distance Between Machines
136.7.5	Safe Traveling Distance
136.7.6	Tying up Machines
137.2.3	Disabling Crossing Warning Device
138.3.2	Critical Lift

Critical Rules – Maintenance of Way/Engineering Employees - Track Maintenance Field Manual	
Rule Number	Rule Description
8.2	Standards and Compliance
4.18.6	Remedial Action Required (Rail Defects)
7.8.1	General Requirements
7.8.16	Summary of Speed Restrictions for Track Work

Critical Rules - Maintenance of Way/Engineering Employees - Engineering Fire Prevention Plan	
Rule Number	Rule Description
2.0	Job Briefings
4.1	Not Conducting/Documenting a Fire Risk Assessment Prior to Hot Work Being Conducted
5.1.2/5.2.3/5.3.2/5.4.3/5.5.3/5.6	Not Complying When Fire Risk is High

Critical Rules - Maintenance of Way/Engineering Employees GCOR and MofW Rules	
Rule Number	Rule Description
2.21	Electronic Devices
5.4.1	Temporary Restrictions
5.4.2	Display of Yellow Flag
5.4.3	Display of Yellow-Red Flag
5.4.4	Authorized Protection by Yellow or Yellow-Red Flag
5.4.5	Display of Green Flag
5.4.6	Display of Flags Within Current of Traffic
5.4.7	Display of Red Flag or Red Light

5.4.8	Flag Location
40.6/6.2.1	Train Location
40.6/6.5	Handling Cars Ahead of Engine
40.6/6.21.1	Protection Against Defects
40.15/15.2	Protection by Track Bulletin Form B
40.8/8.2	Position of Switches
43.5/7.6	Securing Cars, Engines, Trains, etc.
56.1.3	Compromising Signal Safety

Critical Rules - Premium Operations	
Rule Number	Rule Description
2.21	Electronic Devices
5.13	Blue Signal Protection
7.6/32.1.1/32.1.2/32.1.3/32.1.4/32.2.1	Securing Cars, Engines, Trains, etc.
74.12	Off Road Vehicles
81.23	Lockout Protection Required
83.1.6	Adjustment of Container on Chassis
83.1.9	Intermodal Equipment Maintenance Repair Lockout / Tagout Procedures
83.2.1	Speed Limits on Ramp
83.2.2	Observing Stop Signs / Stop Lines
83.3.2	Overhead Lifting
83.3.4	Staying Clear of a Suspended Load
83.3.5	Getting On and Off Intermodal Cars
83.3.8	Crossing Platforms
83.4.2	King Pin (Inspect to Ensure Locked)
83.4.3	Loading Container on Flat Car - COFC
83.4.5	Hitches
83.5.4	Securing Containers

Critical Rules - Mechanical/Car	
Rule Number	Rule Description
2.21	Electronic Devices
5.13	Blue Signal Protection of Workmen
7.6	Securing Cars or Engines
8.2/8.20	Switches and Derails (Not resulting in FRA reportable incident)
74.12	Off Road Vehicles
76.3.14	Jacking Equipment
76.3.15	Securing Jacked Equipment
78.2	Lockout/Tagout
80.14	Fall Protection

81.4.2	Moving Equipment
81.10.2	Using Mobile Equipment
81.10.4	One Person Operations
81.15	Car Doors
	Mechanical Fire Prevention Plan

Critical Rules - Mechanical / Locomotive	
Rule Number	Rule Description
2.21	Electronic Devices
5.13	Blue Signal Protection of Workmen
6.5	Shoving Movements
7.6	Securing Cars or Engines
8.2/8.20	Switches and Derails (Not resulting in FRA reportable incident)
78.2	Lockout/Tagout
80.14	Fall Protection
81.4.2	Moving Equipment
81.8.3	Impaired Clearances
81.10.2	Using Mobile Equipment
81.10.3	Using Locomotive
81.10.4	One Person Operations
	Mechanical Fire Prevention Plan

Critical Rules - Supply/Telecom	
Rule Number	Rule Description
70.6	Lifting and Moving Material
74.2	Driver Requirements
74.6 - Telecom	Back-Up Moves
75.3	Loading and Unloading Tractor Trailers
75.7 - Supply	Forklifts
Chapter 136	On Track Safety

Rule Updated Date

July 6, 2016

General Order

Effective Date: July 6, 2016

[^Top](#)

Item 10-A: General Code of Operating Rules, Chapters 1 to 19

Rule : 1.2.5 Reporting**Change rule to read :**

All cases of personal injury, while on duty or on company property, must be immediately reported to the proper manager and the prescribed form completed.

A personal injury that occurs while off duty that will in any way affect employee performance of duties must be reported to the proper manager as soon as possible. The injured employee must also complete the prescribed written form before returning to service.

All cases of occupational illness must be immediately reported to the proper manager and the prescribed form completed.

Because railroads are required by Federal regulations to report injuries and occupational illnesses that meet certain medical treatment criteria, employees must report to their manager any medical treatment they receive that was directly related to their injury or illness, including any follow-up visits. Below are examples of the types of medical treatments and instructions that employee's must report to their manager if they were given in relation to an injury or occupational illness:

- Medical treatments provided or recommended
- Physical therapy or chiropractic treatments
- Prescriptions and other medications issued or recommended, including dosages
- Lost time instructions
- Work restriction instructions

Rule : 1.3.1 Rules, Regulations, and Instructions**Application:**

Examinations are required to be passed biennially or more often when necessary to ensure employees are familiar with all rules, regulations and instructions.

Issued, Canceled, or Modified

When there is a conflict, subdivision special instructions takes precedence over system special instructions.

Rule : 1.3.2 General Orders

Add a sentence to last paragraph:

Employees must each have a current copy of system general orders and subdivision general orders they can refer to while on duty.

1.5 - Drugs and Alcohol**Add as last paragraph:**

Refusals to provide a test sample or interference or delay in the testing process are also treated as prohibited conduct. This also includes leaving the scene of an accident, tampering or substituting a sample.

Application:

Also refer to the UPRR Drug and Alcohol Policy which governs all employees. Access the policy by using the link:

http://home.www.uprr.com/emp/operating/op_prac/dap/index.shtml

Rule : 1.6.1 Motor Vehicle Driving Records

Change Rule To Read :

A certified conductor, engineer, employee seeking initial certification or employees qualified to drive commercial motor vehicles must report any arrest, citation or conviction to an employee assistance representative at (800)779-1212, within 48 hours for:

- Operating a motor vehicle while under the influence of or impaired by alcohol or a controlled substance.
- Refusal to undergo such testing when a law enforcement official seeks to find out whether a person is operating under the influence of alcohol or a controlled substance.

State-sponsored diversion programs, guilty pleas, and completed state actions to cancel, revoke, suspend, or deny a driver's license are considered convictions as applied to this rule.

Rule : 1.6.3 Notification of Deteriorating Vision or Hearing

Add note to read:

Note: A certified conductor, engineer or employee seeking initial certification who has knowledge that a restriction listed on their FRA Certificate has been corrected or improved to meet the minimum acceptable requirement as outlined in federal regulations must report that fact immediately to the proper authority or the medical department (402-544-5234).

1.11.1 - Napping

TE&Y and Engineering employees, except those working in passenger or commuter service are permitted to nap while on duty when it does not cause a delay to the operations or interfere with the performance of safety-related duties, the safety of the employee, coworkers, or the public under the following conditions:

- The employee has reported on duty and completed all necessary preparations for duty including a job briefing. These duties include reviewing all general orders, track warrants, track bulletins, and all other paperwork.
- The employee responsible for notifying a napping employee work is ready to proceed should allow at least 15 minutes for the napping employee to recover from grogginess which may occur after awaking. Another job briefing must not occur during the 15 minute recovery period, but must take place prior to proceeding with work to ensure all employees are prepared to perform service after the operational delay has concluded.
- The napping employee is relieved of all duties during the napping period. Employees being transported to or from their job duties may nap when no safety sensitive duties are being performed by another employee.

Transportation Employee Requirements:

- When napping in a designated napping facility, one member of the assigned crew or work team must remain awake at all times to perform any work related duties including ensuring that all employees are ready to commence work promptly after the delay has ended. If the entire crew requests time to nap, the supervisor on duty may grant the request if doing so does not jeopardize the safety of the employees, the public, or train operations and will be responsible for ensuring the crew is ready to commence work promptly after the delay has ended.

- A job briefing must be conducted to review the conditions of the napping period and to reach agreement as to who will nap and who must remain awake. The employee's supervisor or co-worker has the right and responsibility to refuse to allow another employee to take a nap if doing so could jeopardize safety or cause undue delay to operations.
- Before napping is allowed **on a locomotive**:
 1. The employee in charge of the locomotive controls must:
 - Make at least a 10 pound brake pipe reduction.
 - Place generator field switch in the "OFF" position.
 - Center and remove the reverser, if removable.
 2. The employee who is to remain awake must remain on the locomotive while others on the locomotive are napping, except when inspecting passing trains.

Engineering Employee Requirements:

- Employee must request a nap from their immediate supervisor and identify the location where the nap is to take place. The supervisor may grant the request if doing so does not jeopardize the safety of employees, the public or train operations. In no case may the employee nap foul of any track or in an area where equipment is operating.
- Before napping is allowed **on maintenance of way equipment**: The operator of the equipment must ensure the equipment is properly tied down, secured against movement and adequately ventilated.
- When on a road in a company vehicle, at least one employee in addition to the employee driving the vehicle must stay awake to help the driver identify potential hazards ahead.

Rule : 1.12 Weapons

Application:

Also refer to UPRR Policy to Address Violence & Abusive Behavior in the Work Place. Access the policy by using the link: <http://home.www.uprr.com/emp/ec/policy/violence.shtml>

Rule : 1.23.1 Locomotive-Mounted Safety Devices

Add new rule:

A. Tampering with or Disabling

Employees are prohibited from:

- Tampering with or disabling any locomotive mounted safety device.
- Operating or failing to take appropriate action to prevent a train from being operated when the controlling locomotive of that train is equipped with a disabled safety device, except as provided in part C of this rule.

Safety devices include crew alertness devices, automatic cab signal devices, automatic train control/train stop devices, and audio, video and other recording devices concerning operations.

B. Inspection of Locomotive-Mounted Safety Devices

The engineer must make a visual inspection of accessible safety devices in the controlling locomotive cab, nose or vestibule, or in the cab control car when taking charge of a locomotive or train to ensure that:

- Nothing interferes with their intended function.
- Switches and breakers controlling the devices are in proper position.
- Seals, as appropriate, are properly applied.
- There is no apparent damage to the device.

If any exceptions are detected, immediately report them to the train dispatcher.

C. Operation of Trains with Defective or Disabled Locomotive-mounted Safety Devices

Locomotives or cab control cars with defective or disabled safety devices must not be operated as the controlling unit unless:

- Provided for in the operating rules,
or
- Authorized by the train dispatcher.

Rule : 1.27 Divulging Information

Add new last sentence reading :

Employees are responsible for all activity with their assigned User ID's and are responsible for protecting the confidentiality of information accessed. Sharing passwords is prohibited. Unauthorized use of another person's User ID and password is prohibited.

Rule : 1.33 Inspection of Freight Cars

Application:

1. When a defect is discovered, note the type of defect on proper tag and attach a tag on each side of the car.
2. Open top rail equipment loaded with wood chips or bark must be covered with approved netting.
3. When applicable, inspections required by Hazardous Materials Instructions must be completed.

Rule : 1.37 Open Top Loads

Change (combine) third and fourth bullets as shown:

- Occupied locomotive or occupied caboose.

1.47 - Duties of Crew Members

Change Rule To Read :

The conductor and the engineer are responsible for the safety and protection of their train and observance of the rules. They must ensure that their subordinates are familiar with their duties, determine the extent of their experience and knowledge of the rules, and instruct them, when necessary, on how to perform their work properly and safely. If any conditions are not covered by the rules, they must take precautions to provide protection.

When the conductor is not present, other crew members must obey the instructions of the engineer concerning rules, safety, and protection of the train.

A. Conductor Responsibilities

1. Supervises the Operation

The conductor supervises the operation and administration of the train (if trains are combined with more than one conductor on board, the conductor with the most seniority takes charge). All persons employed on the train must obey the conductor's instructions, unless the instructions endanger the train's safety or violate the rules. If any doubts arise concerning the authority for proceeding or safety, the conductor must consult with the engineer who will be equally responsible for the safety and proper handling of the train.

2. Restrictions on Equipment

The conductor must advise the engineer and train dispatcher of any restriction placed on equipment being handled.

3. Calling Attention to Restrictions

The conductor must remind the engineer that the train is approaching an area restricted by:

- Limits of authority.
- Track warrant.
- Radio speed restriction.

or

- Track bulletin.

The conductor must inform the engineer after the train passes the last station, but at least 2 miles from the restriction.

4. Freight Conductors

Freight conductors are responsible for the freight carried by their train. They are also responsible for ensuring that the freight is delivered with any accompanying documents to its destination or terminals. Freight conductors must maintain any required records.

5. Conductor Report Form

UPRR crews operating on a foreign railroad are required to properly complete a UPRR form or a foreign railroad form as required by UPRR rules. Foreign railroad crews operating on the UPRR are governed by that railroad's rule concerning awareness forms.

"Conductor Report Form" (FORM 20849) must be maintained as follows (**also see Item 10-K**):

a. Road freight conductors, including locals and switchers but not including yard or passenger conductors, are required to complete the Conductors Report. However, yard conductors performing road service on the main track (transfer, relief service, etc.) will be required to complete the Conductors Report Form.

Remote control operators are not required to maintain a Conductor Report Form except when required by Item 10-K.

The report will include:

- The name of other than Clear wayside signals, speed of the train as head end passes and, as appropriate, a "Z" or "X".
- After passing an Approach or Diverging Approach signal the next wayside signal must be entered regardless of signal indication including the speed of the train (even if the signal is Clear).
- Train defect detector results from all detectors (except "%" detectors) and mile post. "X" will identify in cab communication of results.

- Approaching temporary speed restrictions that affect the train. (Enter speed of restriction on form).
- Approaching the end of authority unless additional authority has been granted to continue on the main track. If the additional authority contains a Box 2 (after arrival) it must be included on the form.
- Train delays.
- Restricted Speed documentation. Every 2 miles that the train is operating at Restricted Speed, enter mile post location, time, train speed, a "Z" to indicate that the information was communicated between crew members and amount of air brake application if any, (None, Minimum, 10#, etc.).
- On the main track in non-signaled territory, the time, train's milepost location, and speed every 5 miles and record an "X" to indicate the information was communicated between crew members. (Comply with bullet 7 if operating at Restricted Speed).
- On Subdivisions with a CG location (as listed in SSI Item 8), record the time and speed of the train as the train crests the grade. Enter an "X" to indicate the information was communicated between crew members.

Entries will be made when head end of train is at or about the mile post location of required entry. Entries will be sequential and legible.

EXAMPLES:

LOCATION	SIGNAL NAME OR TDD ANNOUNCEMENT	TIME	COMMENTS & DELAYS
87.3	AA	0535	X - 52 MPH
89.1	A	0543	Z - 33 MPH
Y091	S	0558	X - Stop - 8" delay
92.5	RP	0617	Z - 12 MPH
94.5	RS	0625	Z - 8 MPH - None
101.3	TSR	0643	Z - 30 MPH
103.3	ND	0657	X
115.0	XH	0715	Z - 15 MPH
129.0		0755	PU - 8 cars - 30"
135.0	EA	0840	Z

Note :

1. Abbreviations may be used. e.g. (Advance Approach = AA; Diverging Clear = DC; Diverging Approach = DA; Approach = A; Approach Diverging = AD; Restricting = R; Restricted Proceed = RP; Stop = S; Speed Restriction (temporary) = TSR; End of Authority = E/A; Crossing Restrictions (received enroute) = XG, XH, XS; Cab Red Zone = Z; In-Cab Communication = X; ND = No Defects; Restricted Speed = RS.
2. Enter MP location where Cab Red Zone begins and/or in-cab communication takes place when other entries are required. However, entry may be made with signal entry when passing signal.
3. Enter delays.

- b. The conductor's report must be completed (and signed on the last page to signify report is complete and accurate) on each trip or tour of duty. If the form is not available, record the information as required. Reports of the last 5 round trips (a minimum of 5 days) must be kept in your possession while on duty, and presented to a Manager upon request.
- c. Do not erase information entered on the form. If an error is made, cross out the entry and write the correct entry.
- d. Conductors with a valid Class 1 "Certificate to Operate Locomotives": When conductors with a valid Class 1 "Certificate to Operate Locomotives" are allowed to operate the engine the time and location (beginning and ending) will be noted on the conductors report form. Entries on the form will not be required during this time period except entries required by Item 10 K.

B. Engineer Responsibilities

1. Operating the Engine

The engineer is responsible for safely and efficiently operating the engine. Crew members must obey the engineer's instructions that concern operating the engine. A student engineer or other qualified employee may operate the engine only under the direct and immediate supervision of the engineer. The engineer must closely monitor the employee's performance. The engineer must be in a position to take immediate action as necessary. Employee that operates an engine must have a current certificate in their possession.

2. Special Handling

The engineer must check with the conductor to determine if any cars or units in the train require special handling.

C. All Crew Members' Responsibilities

1. Crew Members in Control Compartment

Crew members in the control compartment must communicate to each other any restrictions or other known conditions and required actions that affect the safe operation of their train sufficiently in advance of such condition to allow the engineer to take proper action. If proper action is not being taken, crew members must remind engineer of such condition and required action.

Crew members in the control compartment must be alert for signals. Crew members must:

- Communicate clearly to each other the name of signals affecting their train as soon as signals become visible or audible.
- Continue to observe signals and announce any change of aspect until the train passes the signal.
- Communicate clearly to each other the speed of the train as it passes a signal with an indication other than Clear.
- Immediately remind the engineer of the rule requirement if the signal is not complied with.

2. Radio Transmission

Except when switching a crew member must transmit the engine number, direction, location and signal name (include track number in multiple main track CTC territory) when the head end of the train:

A. Passes a signal that requires:

- Being prepared to Stop at the next signal.
 - Being prepared to pass next signal at Restricted Speed.
- or
- Restricted speed.

B. Stops for a signal that requires stopping.

However, instructions may be issued to identify locations where this radio transmission is not required.

3. Proper Action

If engineer and/or conductor fail to comply with a signal indication or take proper action to comply with a restriction or rule, crew members must immediately take action to ensure safety, using the emergency brake valve to stop the train, if necessary.

4. Performing Work

Before work is performed at a location, the crew must discuss how the work will be performed, which switches/derails will be used, what method will be used to pass signals, close clearances and any other safety related concerns. When work is completed, the crew will confirm that work was completed as planned, switches and derails are in proper position and any unforeseen safety concerns are properly reported.

1.47.1 Cab Red Zone

Add new rule:

During a Cab Red Zone (CRZ), an environment must be created in the locomotive control compartment that focuses exclusively on controlling the train, verbally communicating restrictions, and proper application of the rules. The conductor must be in the control compartment unless required to perform other duties (i.e. to operate switches, be at a road crossing, passenger train duties, etc.).

A Cab Red Zone exists during critical times such as:

- Operating at Restricted Speed. (Does not apply when switching.)
- Operating on a signal that requires the train to:
 - Be prepared to Stop at the next signal.
 - or
 - Pass the next signal at Restricted Speed.
- Copying mandatory directives.
- Approaching a Form B restriction.
- Approaching a temporary speed restriction that affects the train.
- Approaching the end of the train's authority.

The following restrictions or conditions are required during a Cab Red Zone:

- Cab communication is restricted to immediate responsibilities for safe train operation.
- Radio communication with the dispatcher or other employees must be limited to the train's immediate movement or conditions that affect the safety of trains.
- A crew member other than the employee operating the controls will be required to handle radio communications when that crew member is in the control compartment.
Exception: Rule 33.6.1 (Operating Responsibilities with Manned Helper.)
- If proper action is not being taken, crew members must remind each other of the Cab Red Zone and/or take appropriate action to stop the train.

Application: As contained within this rule, approaching is defined as two miles from the restriction or end of the train's authority.

Rule : 1.47.2 Training and Familiarization**Add new rule :**

Employees assigned to a position for the purpose of training or familiarization must be under the direct and immediate supervision of a qualified employee at all times. The qualified employee must closely monitor the employee's performance and must be in a position to take immediate action as necessary. Any employee requiring certification must have a current certificate in his possession.

Rule : 2.1 Transmitting**Application:****Normal Dispatcher Call-in Procedure**

To contact the train dispatcher from the field:

1. Ensure that you are on the correct dispatcher radio channel for the area you are in. The radio channel is identified in timetable subdivision instructions under Radio Display (SI-RD).

2. On the radio key pad, dial "*" plus the 2-digit code for the dispatcher you wish to call. (For example, "*20").

Note: After dialing the "*XX" digits, you should receive an acknowledgment tone on your radio indicating the call-in has been detected and processed. If you do not hear the acknowledgment tone you will need to re-dial the code.

Rule : 2.2 Required Identification**Application:**

During switching operations, short identification must be unique enough to ensure no misunderstanding as to whom the communication is intended for or could be misinterpreted. Job numbers alone could be misinterpreted as car counts, track number or other equipment etc. "10 back up 5" must not be used. Instead use "Job 10 back up 5 cars; Yard Job 10 back up 5 cars" or "DY10 back up 5 cars".

Rule : 2.3 Repetition**Add as last paragraph:**

When a mandatory directive or instruction concerning train movement has been repeated correctly, the repeat must be acknowledged as correct.

Rule : 2.10 Emergency Calls**Application:****Emergency Call-in Procedure**

The Emergency call-in code is "911" throughout the entire UPRR system. To contact the train dispatcher in case of an emergency:

1. Ensure that you are on the dispatcher's radio channel for the area you are in. The radio channel is identified in timetable subdivision instructions under Radio Display (SI-RD).

2. Dial DTMF digits "911" on the radio key pad.

Note: After dialing the "911" digits, you should receive an acknowledgment tone on your radio indicating the emergency call-in has been detected and processed. If you do not hear the acknowledgment tone you will need to resend the "911" code.

Rule : 2.14 Transmission of Mandatory Directives

Add a bullet reading:

- When transmitting a track restriction directly to a train, the restriction will be issued using the following format: (Train ID) do not exceed (speed) between (location) and (location) (add track when necessary). If no flags are displayed, the words "No flags are displayed" will be added to the format.

2.14.1 - Verbally Transmitting and Repeating Mandatory Directives

Change last sentence to read:

A decimal point must be spoken as "point", "dot", or "decimal", and a hyphen must be spoken as "dash".

2.21 - Electronic Devices

Entire Rule Changed To Read:

The restrictions in this rule apply to use of personal and railroad-supplied electronic devices by railroad operating employees and does not affect the use of railroad radios under FRA regulations.

PROHIBITED USE:

A railroad operating employee shall not use an electronic device while on duty if that use would interfere with the performance of safety-related duties. Electronic Devices must not be used to verbally obtain or release a mandatory directive when radio communication is available.

A. Personal Electronic Devices:

Devices must be powered off with any earpiece removed from the ear, and properly stowed while on duty.

Except as described in Sections C and D below, use by any crew member in the cab of a controlling locomotive is prohibited when:

- On a moving train.
- Any member of the crew is on the ground or on moving equipment.
- Any railroad employee is assisting in preparation of the train, engine or on-track equipment for movement.

B. Railroad-Supplied Electronic Devices:

Unless required to be powered on for purposes of timely, automated updating or transmission of information, railroad-supplied

electronic devices must be powered off with any earpiece removed from the ear, and stowed when not in use.

Crew members authorized to use railroad-supplied electronic devices may use such devices when:

- A job briefing is held and all crewmembers agree the device is safe to use.
- Not on a moving train.
- The crewmember using the device is not fouling the track.

Note: For Work Order Reporting Devices, refer to System Special Instructions Item 15.

C. Limited Use Permitted:

After conducting a safety briefing with all crew members and agreeing the limited use of the device is safe, the use of an electronic device is permitted if necessary to respond to an emergency situation involving the operation of the railroad, to respond to an emergency encountered while on-duty, or necessary due to a radio malfunction or as follows:

1. **Railroad-Supplied Device:** may be used by a crew member for exchange of work related information during train operations with railroad supervisors, dispatchers, customers, NCSC, or customer service employees.
2. **Digital Storage and Display Function:** may be used to refer to a railroad rule, special instruction, timetable, or other directive if the wireless capability of the device is disabled.
3. **Voice Communication:** permitted on the condition that the device must be turned off as soon as the call is completed.
4. **Camera:** may be used to take a photograph of a safety hazard or a violation of a rail safety law, regulation, order, or standard, provided that:
 - The device is a personal stand alone camera. NOTE: A camera that is part of a cell phone or other similar multi-functional electronic device is not included in this exception unless it is a railroad-supplied device and is used for an authorized business purpose; and
 - The camera is turned off immediately after the photograph is taken; and the camera is not used by an employee at the controls of moving equipment.

A personal stand-alone calculator, digital watch whose only purpose is as a timepiece and medical devices that are consistent with the railroad's standards may be used as necessary in the performance of duties.

D. Permitted Use:

An operating employee may use an electronic device when:

- Deadheading in a non-controlling unit or automobile.
- In a crew room to update rules or documents specified in SSI Item 7-A, or other required company provided electronic media only.

Railroad authorized electronic devices may be used in the body of a business car or passenger train for railroad business when it will not interfere with an employee's performance of safety related duties.

Engineering, Mechanical, and Premium Operations Employees will be governed by the following:

A camera may be used to take a photograph of a safety hazard or a violation of a rail safety law, regulation, order, or standard, provided that:

- The device is a personal stand alone camera. NOTE: A camera that is part of a cell phone or other similar multi-functional electronic device is not included in this exception unless it is a railroad-supplied device and is used for an authorized business purpose; and
- The camera is turned off immediately after the photograph is taken; and the camera is not used by an employee at the controls of moving equipment.

E. Engineering Employees

When cell phone use is allowed, employees must follow all applicable federal, state and local laws. Use of electronic devices is governed by the following:

1. Before using an electronic device, determine that it is safe to do so.
2. Operators of vehicles and equipment, including hrrails, must not use an electronic device while equipment is moving. A computer may be used for business purposes, however, the operator must stop equipment when necessary to enter or view information. If the computer is not equipped with a screen black out process that blacks out the screen when equipment is moving faster than 5 MPH, the device screen must not be viewable to the operator. Passengers may use cell phones or computers as long as their use doesn't distract the driver from safely operating the equipment.

Employees must not use electronic devices when:

- Standing or walking on a roadway.
- Foul of any track.
- In close proximity to men or equipment working on or off track.

F. Mechanical Employees

1. Personal Use of Electronic Devices

- Electronic devices must be limited to designated break and meal periods.
- Electronic devices must be turned off except when in a designated break or office area.

2. Business Use of Electronic Devices

Employees must ensure that electronic device usage does not compromise the safety of themselves and others.

Electronic devices must not be used while:

- In a red zone.
- Walking.
- Operating any vehicle (locomotives, car movers, forklifts, scooters, man lifts, etc.)
- Operating or in close proximity of operating machinery.
- Moving locomotives.
- Performing any safety sensitive work activity
- In the line of fire.

G. Premium Operations

UPRR intermodal ramp employees will be governed by the following:

In addition to rule 74.3, with exception of company data devices at the gate or equipment VMU's, no one may use any electronic device while on a UPRR intermodal ramp with the following exceptions:

- Use of electronic devices should be limited in nature and cell phones must be powered off and not used when in a red zone or when operating ramp related equipment of any kind. Electronic devices may not be used when working on the ground, in mechanical areas, in and around any type of equipment or when performing any type of safety sensitive task.
- Operators of over the road trucks, passenger vehicles and repair type vehicles are permitted to use cell phones only when a hands free device is used along with voice activated or speed dialing or when parked in designated parking areas. Gate lanes are not designated parking areas for this purpose. The use of a cell phone for anything other than voice communication is prohibited while operating a motor vehicle.
- Use of electronic devices is permitted only in break areas, office areas or in parked passenger or over the road type vehicles in designated parking areas.

Rule : 5.2.1 Looking for Signals

Application:

Engineering department employees performing lookout duties (wearing a yellow/green vest with orange reflectorized striping, with "Lookout" printed on the vest) may be communicating with their work group with a white flag. This white flag is not a signal to the train, rather a signal to the work group that an approaching train has been spotted.

Rule : 5.3.7 Radio Response

Delete entire rule.

Rule : 5.4.4 Authorized Protection by Yellow or Yellow-Red Flag

Change rule as follows :

Delete all references to yellow-red flags. Rule only applies to use of yellow flags.

Rule : 5.4.8 Flag Location

Application:

In three or more main track territory, flags will be displayed to the right of center tracks (inside tracks) where clearance allows.

Rule : 5.5 Permanent Speed Signs

Application:

The location of permanent speed signs are:

- 2500 feet ahead of the restriction (Arrow-shaped signs).
- 2 miles ahead of the restriction (Square or rectangular signs).

Rule : 5.8.1 Ringing Engine Bell

Add bullet :

- When moving on the main track or siding, ring bell continuously while passing standing equipment on an adjacent track.

Rule : 5.8.2 Sounding Whistle

Add second sentence to first paragraph.

First paragraph now reads:

The whistle may be used at anytime as a warning regardless of any whistle prohibitions. When approaching areas where it is known employees are working or seen on a track adjacent to a main track or siding, sound warning.

Change (1) and add to (7) to read:

SOUND	INDICATION
[1] Sound whistle to attempt to attract attention to the train.	Use when persons or livestock are on the track at other than road crossings at grade. Use when within quiet zones when engineer believes such action is appropriate. When unable to determine an employees work group, sound signal 5.8.2 (8).
[7] - - o -	Addition: At locations where crossing signs are displayed sound whistle as required above regardless of the type of crossing train is approaching. In the states of California and Montana sound whistle signal at all crossings, public and private.

Rule : 5.9.5 Displaying Ditch Lights

Application:

The term "ditch lights" includes oscillating white headlights or strobe lights located on the front of the locomotive. Ditch lights on some foreign locomotives are configured to operate only when the horn is activated. Ditch lights which operate in this manner will be considered as meeting the requirements of this rule. When a remote control locomotive is being controlled with a remote control transmitter the ditch lights need not be displayed if speed does not exceed 20 MPH. Ditch lights are not required on steam locomotives. Failure of two ditch lights includes employee failure to turn on the ditch lights.

Rule : 5.10 Markers

Application:

Before departing the initial terminal, the conductor must know the initials and number of the car that has the marker applied or unit number, when the engine at rear of the train is used as the marker. This can be done verbally by the employee making the

initial terminal air brake test, or included on the written notification of the test. If the rear car changes, an employee must report to the conductor the initials and number of the car having the marker applied before the train departs.

When a train is set out clear of the main track at other than a crew change location, a crew member must remove the end of train telemetry device, if so equipped. Transport the device on the engine to the destination where the crew is relieved.

If the engine remains with the train, a crew member must deliver the end of train telemetry device to the proper authority at the tie-up point. However, proper authority may advise the crew to leave the device with the train. Always notify the train dispatcher of the location of the telemetry device.

Do not place an EOT on a locomotive unless it is mounted on the knuckle. Conductors are responsible to ensure the EOT is placed in the correct location at yards/terminals.

Rule : 5.11 Engine Identifying Number

Change rule to read :

Trains will be identified by initials and engine number, adding the direction when required. When an engine consists of more than one unit or when two or more engines are coupled, the number of one unit only will be illuminated as the identifying number. The identifying number will be the number of the lead unit, unless changing direction during a trip or tour of duty when that unit is no longer the lead unit.

Exceptions:

- On track bulletins that advise about excessive dimension equipment, trains may be identified by train symbol.
- On track bulletins and on track warrants that do not convey movement authority, passenger trains may be identified by schedule number.

Note: Engines with the following initials stenciled on the side of the locomotive will be identified as NS engines: SOU, NW, PRR, CG, INT, GSF, AGS, CRCX and CR (ConRail).

Rule : 5.13 Blue Signal Protection of Workmen

Part C. 2.

Add second sentence to read:

A blue tag must be placed on the switch governing remote/manual operation.

Part C.3.

Add note after diagram reading:

Note:

Remote control locomotives may be in remote mode while under blue signal protection to service remote control locomotive equipment/functions when the following requirements are met:

1. The employee placing the locomotive in remote mode has been trained to repair and operate remote control equipment.

2. All employees involved on the unit and/or tracks are job briefed and warned against possible inadvertent movement of the locomotive.

5.14.1 - Contractor Protection for Servicing Locomotives

Add New Rule :

5.14.1: Contractor Protection for Servicing Locomotives

When contractors are working, on, under, or between equipment, the contractor will place a red flag in a location that can be clearly seen from the cab of the controlling engine. When employees take charge of an engine, they must visually determine if a red flag is displayed. When a red flag is attached to an engine, unless directed by the contractor, the following are prohibited:

- Changing controls or brake settings.
- Turning on or off switches (except overhead cab lights).
- Changing circuit breakers.
- Starting or shutting down the engine.

Rule : 6.2.1 Train Location

Change Rule To Read :

Trains who receive authority to occupy the main track after the arrival of a train or to follow a train, must ascertain the train's location by one of the following methods:

- Direct communication with a crew member of the train.
or
- Receiving information about the train from the train dispatcher or control operator.

Rule : 6.3 Main Track Authorization

Add a new bullet reading:

- Rule 9.14.2 Controlled Block System (CBS).

Add the following paragraph under Joint Authority

When a train receives joint authority, movements must be made at restricted speed.

Rule : 6.4.1 Permission for Reverse Movement

Application:

In ATC territory "within same signaled block" only applies where continuous block signal territory is designated.

Rule : 6.4.2 Movements Within Control Points or Interlockings**Change Part A (Control Point or Manual Interlockings) to read:****Control Points Outside Manual Interlockings.**

Except within track and time limits, if movement stops while the trailing end is between the outer opposing absolute signals of a control point, the movement must not change direction without permission from the control operator. However, after a job briefing has been conducted and the control operator has a clear understanding of all movements to be made and tracks to be used, the control operator may grant permission for all movements.

Manual Interlockings

If movement stops while the trailing end is between the outer opposing absolute signals of a manual interlocking, the movement must not change direction without permission from the control operator.

Rule 6.5 Shoving Movements**Change Rule To Read :**

Equipment must not be shoved until the engineer and the employee protecting the movement have completed a job briefing concerning how protection will be provided. Employee must be in position, provide visual protection of the equipment being shoved and participating crewmembers must not engage in unrelated tasks while making a shoving movement.

When making a shoving movement, the employee protecting the movement must see the route is clear and:

- Be in a position to continuously observe the leading end of the equipment until it is stopped.
- or
- Walk adjacent to or ride the leading end of the equipment.

The employee protecting the shove must not turn their back on the movement or walk backwards ahead of the movement. Radio communications for shoving movements must specify the direction and distance and must be acknowledged when distance specified is more than four cars.

MOVEMENT MUST STOP WITHIN HALF THE DISTANCE SPECIFIED UNLESS ADDITIONAL INSTRUCTIONS ARE RECEIVED.

Equipment must not be shoved until it is visually determined that:

- Portion of track to be used is clear of equipment or conflicting movements.
- The track will remain clear to the location where movement will be stopped.
- Switches and derails are properly lined.

Employees may be relieved from providing visual protection when:

- Superintendent Bulletin specifies tracks that will be protected with shove lights or monitored cameras.
- Picking up a crew member in accordance with Rule 6.6 (Back Up Movements).

Shoving movements over road crossings must be made in accordance with Rule 6.32.1 (Providing Warning Over Road Crossings).

Speeds when Shoving

When cars are shoved on a main track or controlled siding in the direction authorized, movement must not exceed:

- 20 MPH for freight trains.
- 30 MPH for passenger trains.
- Maximum timetable speed for snow service unless the employee in charge authorizes a higher speed.

Application:

When not using hand signals, radio job briefing must include the following:

- Who will protect the shove.
- Which track is being shoved.
- How the shove will be protected.
- Distance and direction to be shoved.
- Position of switches and derails, if applicable.

Rule : 6.5.1 Remote Control Movements

Change entire rule to read :

Remote control movements are considered shoving movements, except when the remote control operator controlling the movement is riding the leading locomotive in the direction of movement. Before initiating movement, the remote control operator or a crew member must be in position to visually observe the direction the equipment moves.

When approaching within 200 feet of a fouling point, switch or derail, employee controlling the movement must be on the point of the movement outside the cab when riding the locomotive. However, movement may be controlled from inside the cab of the lead locomotive when:

- Operating in severe weather conditions.
or
- It is necessary to sound the whistle.

Relief of Providing Protection

The remote control operator is relieved from providing protection and the requirement to stop within half the range of vision for movements with engine on leading end when:

1. The remote control zone has been activated.
2. Switches/derails are known to be properly lined.
and
3. Track(s) within the zone are known to be clear of other trains, engines, railroad cars, and men or equipment fouling track.

When Remote Control Zone is equipped with pull back / stop protection (PSP), the operator must verify that PSP is operational. Pull back and stop protection must again be verified if PSP is overridden or disabled.

Note: These steps must be repeated each time the remote control zone is activated.

When operating in pitch and catch mode and making a shoving movement, the primary operator must be in position to protect point of movement.

The primary operator at the coupling may stretch the slack to ensure couplings are made or separate equipment to make coupler adjustments after a job briefing with the employee who will be protecting the point.

When requesting pin slack, the employee uncoupling the equipment is not required to be the primary operator.

Rule : 6.5.2 Movement of Light Remote Control Locomotive

Add new rule:

Unless relieved of providing protection, the primary operator must take a position on the leading end of a light remote control locomotive consist or be positioned on the ground clear of the movement and able to observe the entire movement before initiating the movement.

6.6 Back Up Movements

Change Rule To Read :

After obtaining permission from the train dispatcher, a train may back up on any main track or on any track where CTC is in effect under the following conditions:

1. The crew ensures movement will not:
 - a) Exceed the limit of the train's authority.
 - b) Exceed the train's length.
 - c) Enter or foul a private or public crossing except as provided by Rule 6.32.1 (Providing Warning Over Road Crossings).
 - d) Be made into or within yard limits, restricted limits, interlocking limits, drawbridges, railroad crossings at grade, or track bulletin Form B limits.

2. The train dispatcher grants permission to make the movement after verifying the following within the same or overlapping limits:
 - a) Another authority is not in effect unless conflicting movements are protected.
 - b) A track bulletin Form B is not in effect.
 - c) A main track is not removed from service by a track bulletin.
 - d) Track Breach Protection is not in effect.
 - e) Permission to leave a switch in the reverse position has not been granted.

When movement is made under these conditions, restricted speed does not apply.

Before a crew requests and makes a move under this rule, a job safety briefing between crew members must be conducted that includes:

- Confirmation of authority limits.
- Location of nearest affected road crossings in direction of movement.
- Distance to be shoved.
- Confirmation that train is intact, verified either visually or by determining that brake pipe continuity exists using EOT device or distributed power telemetry.

Rule : 6.7 Remote Control Zone

Application of part A. Entering Remote Control Zone:

Timetable special instructions will designate limits of remote control zones. Signs will be posted at access locations to remote control zones. Remote control zone limits do not include tracks within CTC or interlocking limits (CTC or interlocking rules apply). Only the remote control operator may activate a zone. However, timetable special instructions may designate the hours a zone is active.

Proper records must be maintained concerning activation, deactivation and transfer of the zones at locations where a designated supervisor may be contacted to determine if a zone is active.

Record must include:

- Job designation.
- Zone number.
- Date and time zone activated.
- If applicable, time zone transferred and job designation of other remote control job. Transfers from one job to another do not need to be recorded unless the transfer involves a job that is going off duty or will not again control the active zone. All active zones must be transferred to a new zone log.
- Date and time zone deactivated.

Remote control operators may allow only one other train or engine movement to occupy the limits of their active zone at one time. When that train or engine is clear of the zone with switches properly lined, it must report directly to the remote control operator. If it is necessary for other train or engine movements to enter the limits of the active zone during that time, the zone must be deactivated.

Engineering employees may use Individual Train Detection (ITD) in an active Remote Control Zone, when performing work without equipment. A job briefing must take place between the RCO and the engineering employee. The job briefing must include one of these options:

- Remote control movements will stop until the engineering employee completes the task and reports clear.
or
- RCO must provide protection for all movements.

Engineering or mechanical department employees, with equipment, must not enter or foul the track within an active zone. If necessary to enter the zone limits, the zone must be deactivated.

Rule : 6.19 Flag Protection

Application:

Flagging distance is 2 miles.

6.20 B. Other Equipment Left on Main Track

Application:

A train must not be left on the main track in non signaled territory unless protected by one of the following:

1. Yard Limits
2. Track Warrants
 - The train dispatcher may request the release of the crew's track warrant and inform crew that protection has been provided.
 - After being informed that protection has been provided, the following procedure must be followed:
 - Crew will state: "(Train ID) is stopped between MP___ and MP___ on main track (Subdivision). Protection has been provided."
 - Dispatcher will state: "(Train ID) that is correct."

A crew member will then release their track warrant.

Rule : 6.21 Precautions Against Unusual Conditions

Add the following application to rule:

Verbally Notified	Track Bulletin or Track Warrant	Procedure to follow
"FF" in effect between _____ and _____, or at location _____.	Flash Flood warning in effect between _____ and _____. Within these limits or specified location be governed by Rule 6.21 and Rule 6.21.2.	Be governed by Rule 6.21 and Rule 6.21.2.

Rule : 6.21.3 Track Obstruction/Unusual Conditions

Change Rule to Read:

When a train is instructed by the Train Dispatcher in the words, "BETWEEN (location) AND (location) BE GOVERNED BY RULE 6.21.3", within specified limits, train must proceed at a speed which will permit stopping short of slide, rock, washout or debris on track.

Rule : 6.23 Emergency Stop or Severe Slack Action

Obstruction of a Main Track or Controlled Siding - Application:

To notify the train dispatcher or control operator, use the emergency call-in feature if available.

Inspection of Cars and Units:

Inspect the train on each side of all cars, units, equipment, and track to ensure they are in a safe condition. Make sure the marker is attached to the designated rear car. Before proceeding check the proper positioning of all wheels on the rail. If physical characteristics prevent a complete visual inspection, inspect as much of the train as possible. The train may then be moved, but may not exceed 5 MPH for the distance necessary to complete the inspection, and must be stopped immediately if excessive power is required to start or keep the train moving. When an inspection is required, the entire train must be inspected. When any of the following conditions are met, crews are relieved of visual inspection required by an emergency application when device located at rear of train immediately indicates that brake pipe pressure has been restored.

- Solid loaded bulk commodity trains.
- Train is made up entirely of double stack well cars and/or five-platform articulated single-level spine cars.
- Train speed is above 20 MPH.
or
- Train is 5000 tons or less.

An inspection on any train must be made if:

- Train is a key train.
- Severe slack action was experienced.

Train must be stopped immediately and inspected, if excessive power is required to start or keep the train moving.

Rule : 6.26 Use of Multiple Main Tracks

Application:

Multiple main tracks are numbered as follows:

- On east-west subdivisions, track numbers increase from north to south, and the northern most track is No. 1.
- On north-south subdivisions, track numbers increase from west to east, and the western most track is No. 1.

Rule : 6.27 Movement at Restricted Speed

Application:

Train and / or engine speed must allow for movement to stop short of the obstructions listed consistent with good train handling.

Rule : 6.28 Movement on Other than Main Track

Application:

Train and/or engine speed must allow for movement to stop short of the obstructions listed consistent with good train handling.

Rule : 6.29.1 Inspecting Passing Trains**Change Ground Inspections to read:**

When a train is stopped and is met or passed by another train, crew members must inspect the passing train. The trainman's inspection will be made from the ground if there is a safe location. When stopped, the crew member must detrain, on the field side, the side away from the adjacent main track.

Inspection will be made from the cab of the locomotive:

- During snow and ice conditions that may cause slippery conditions underfoot when getting on or off.
or
- When stopped at a location where it is unsafe to detrain or there is an adjacent main track on each side of the train (i.e. on track 2 in 3 main track territory).

Application:

When a trackside warning detector indicates a train defect, stop train according to instructions contained in Item 13.

Rule : 6.32.1 Cars Shoved, Kicked, or Dropped**Change Title and Rule To Read :****6.32.1 Cars Shoved, Kicked, or Dropped**

When cars are shoved or kicked over road crossings at grade (except those used exclusively by railroad employees), a crew member must be on the ground at the crossing to warn traffic until the crossing is occupied. Make any movement over the crossing as directed from that crew member. Such warning is not required when gates are known to be in the fully lowered position.

6.32.2 Automatic Warning Devices and Crossings That Require Additional Precautions**Change rule title and rule to read :**

Under any of the following conditions, a movement must not foul a crossing equipped with automatic warning devices until the device has been operating long enough to provide warning and the crossing gates, if equipped, are fully lowered:

- Train, engine, and other such movements consisting of 12 physical axles or less. However, Self Propelled Engineering Department Track Geometry cars will be governed by Engineering Department instructions.
- Movement has stopped within 3,000 feet of the crossing.
- Movement is within 3,000 feet of the crossing and speed has increased by more than 5 MPH.
- Movement is closely following another movement.
- Movement is on other than the main track or siding.
or
- Movement enters a main track or siding within 3,000 feet of the crossing.

Employees must observe all automatic warning devices and report any that are malfunctioning by the first available means of communication to the:
--

- **Train dispatcher**
or
- **Grade Crossing Safety Hot Line (800-848-8715).**

Notify all affected trains as soon as possible.

If equipped, when the white power-on light on the exterior of the signal house is not lit or when a strobe light on the exterior of the signal house is flashing, immediately notify the train dispatcher or Grade Crossing Safety Hot Line.

A. Automatic Warning Devices Malfunctioning

Use the following procedures to properly complete movement over the crossing:

Procedure 1:

Unless otherwise instructed by signal employee in charge, train must stop before occupying the crossing. A crew member must be on the ground at the crossing to warn highway traffic. The train may proceed over the crossing as directed by that crew member. When leading end of movement completely occupies the crossing, proceed at maximum authorized speed.

Procedure 2:

Unless otherwise instructed by signal employee in charge, train must approach crossing prepared to stop before entering crossing. If automatic warning devices are not working comply with Procedure 1. If devices are seen to be working, or when advised by the train dispatcher, track bulletin or track warrant, train may proceed through the crossing not exceeding 15 miles per hour. When leading end of movement completely occupies the crossing, proceed at maximum authorized speed.

Note: Crossing with broken gate(s) is considered as having working devices when the balance of the automatic warning devices are seen to be working.

Movement when notified of warning devices that are malfunctioning or crossings that require additional precautions:

When notified verbally, by track bulletin or track warrant to comply with Procedure:	Required Action:
XG or XS	Procedure 1
XH	Procedure 2
XC or XI	The train may proceed over the crossing not exceeding 15 mph. When leading end of movement completely occupies the crossing, proceed at maximum authorized speed.

When advised by the train dispatcher or proper authority that the warning devices have been repaired, these restrictions no longer apply.

Note: When a crew is notified (e.g. from another train crew) that a crossing has an activation failure or a malfunction, the appropriate procedure must be followed.

B. Whistle for Crossing

When notified that automatic warning devices are malfunctioning, sound whistle signal 5.8.2(7) regardless of any prohibition.

Application:

Crossing Warning Device Malfunction Sign

Where a Crossing Warning Device Malfunction sign (System Special Instructions Item 22) is located next to a road crossing, movement must stop at the sign and **Procedure 1** applies.

"STOP" Sign

Where a STOP sign is located next to a road crossing, movement must stop at the STOP sign. Movement may proceed only after automatic crossing warning devices have been operating long enough to provide warning and crossing gates, if equipped, are fully lowered. If automatic crossing warning devices fail to operate, comply with Procedure 1.

XG – Automatic Crossing Device has an activation failure.

XH – Automatic Crossing not working properly.

XS – Automatic Crossing device has been disabled.

XC – Cars have been left closer than the required distance from the crossing.

XI – Due to broken crossbuck, stop sign, vegetation, etc.

Rule : 6.32.4 Clear of Crossings and Signal Circuits

Add as last paragraph:

When cars, engines or equipment are left on a siding or a main track closer than the required distance, the train dispatcher must be notified.

Application:

Referring to 250 feet:

- In Illinois, the distance is 500 feet.
- In Wisconsin, the distance is 330 feet.

- In Arkansas and Louisiana the distance is 300 feet.

Rule : 6.32.7 Road Crossings within Intermodal and Automotive Facilities

Add new rule:

Movements over crossings within intermodal and vehicle loading/unloading facilities will be made as follows:

- Shoving movements and locomotive consist movements, when not controlled from the cab nearest the direction of travel, must be protected by an employee in position at the crossing to warn traffic until the crossing is occupied. Make movement over the crossing only after warning has been provided.
- Movements with the engine in the lead, when controlled from the cab nearest the direction of travel, must ring the engine bell when approaching crossing. In addition, sound whistle as a warning when vehicles are stopped, closely approaching or crossing view is obstructed.

7.3 - Additional Switching Precautions

Change fourth bullet in first series of bullets to read:

- Loaded Autoracks

Add note after second series of bullets reading:

Note: Loaded Autoracks may be humped, but must otherwise be shoved to rest.

Rule : 7.4 Precautions for Coupling or Moving Cars or Engines

Change Rule To Read :

Before coupling to or moving cars or engines, verify that the cars or engines are properly secured and can be coupled and moved safely.

Make couplings at a speed of not more than 4 MPH. After coupling, engine direction must be changed to stretch slack to ensure that coupling(s) have been made. Before beginning shoving movement, ensure that all couplings have been stretched.

Rule : 7.4.1 Remote Control Couplings

Add new rule :

When using a remote control locomotive in 'pitch and catch' operations to make a coupling, the RCO located at the coupling must be the primary operator. This does not prevent a utility employee, not equipped as a RCO, from making the coupling.

Make couplings at a speed of not more than 2 MPH. Remote Control Operator must use speed selection of not greater than "Couple".

Do not use 'Coast' and independent brake override to make car couplings.

Note: When spotting cars at an industry that requires precision spotting of the cars the independent brake override may be used.

Rule : 7.5 Testing Hand Brakes

Add sentence :

If hand brake is not operational, attach a bad order tag to hand brake wheel or lever.

Rule : 7.7 Kicking or Dropping Cars

Change rule to read :

Kicking or allowing cars to roll under their own momentum is only permitted at authorized locations and when it will not endanger employees, equipment, or contents of cars. This does not apply to crews actively humping cars.

When kicking cars, crew member must ensure that cars kicked are clear of and will remain clear of next track to be entered before track is fouled.

Dropping cars is prohibited.

Rule : 7.7.1 Gravity Switch Moves

Add :

A gravity switch may only be made where authorized by "Superintendent Bulletin" and manned hand brake must be located on the trailing end of the trailing car in the direction of movement.

Rule : 7.8 Coupling or Moving Cars on Tracks Where Cars are Being Loaded or Unloaded

Change 4th bullet under, "In addition:" part to read :

- Do not pull empty cars from an unloading facility until cables, straps, and other devices used to secure lading are secured and any major accumulation of debris is removed by the customer.

Rule : 7.12 Movements Into Spur Tracks

Add a bullet as follows :

- Stop movement short of end of track, bumper, chock, etc., unless it is necessary to shove cars to the end of the track to properly spot cars for the industry. When necessary, use extreme caution to avoid damage to equipment, track or structures.

7.13 Protection of Employees in Bowl Tracks

Change Rule To Read :

During humping operations, before a train or yard crew member performs any work activities between bowl tracks , protection must be provided against cars released from the hump into the bowl track **that will be fouled** as follows:

- The employee requesting protection must notify the employee controlling the switches that provide access from the hump to the bowl track where work will occur.

- After being notified, the switch controller must line any remote control switch against movement to the affected bowl track and locking or blocking device must be applied to the switch control.
- The switch controller must then notify the employee that protection is provided. Protection will be maintained until the switch controller is advised that work is complete and employee is clear of the bowl track and protection is no longer required.

Rule : 8.19.1 Radio Controlled Switches

Change Rule To Read :

The location of Radio Controlled Switches (RCS) and operating instructions will be designated in timetable special instructions. When movement authority requires a train to stop at a RCS location, stop must be made before any part of a train passes the signal governing movement over the RCS.

At locations where radio controlled switches are installed, the following instructions apply.

RCS locations are equipped with:

- Dual control switch machines.
- Bi-directional switch point indicators per Rule 8.10.
- Occupancy (OS) circuits with limits marked by signs reading "Begin OS" and "End OS".

Signs reading "Switch Control" are located approximately 2 miles in advance of RCS locations.

Operating Instructions:

1. Upon passing a 'Switch Control' sign use the radio keypad to transmit the proper sequence (designated in the timetable) to request the desired switch position and receive radio transmitted verbal confirmation of switch alignment at that location.
2. Once radio confirmation of proper switch alignment has been received, movement through the RCS location must be made within 10 minutes of confirmation or the movement must approach the RCS location prepared to stop.
3. If radio confirmation of proper switch alignment is not received, movement must approach the RCS location prepared to stop until the switch point indicator can be clearly seen to indicate proper switch alignment. Notify the train dispatcher that radio confirmation was not received.

Stop and Inspect Switch

If the radio message received is "Switch Not Lined" or no radio message is received and the switch point indicator continues to display an indication to stop and inspect switch:

1. Movement must stop before entering the OS circuit limits.
2. After stopping, the RCS may be operated by unlocking the box on the side of the signal bungalow and using the push-button.
3. After push-button operation is attempted, if the switch point indicator continues to display an indication to stop and inspect switch, employee must operate the switch by hand as outlined in Rule 9.13.1 (Hand Operation of Dual Control Switches).

Note: If the switch point indicator can be clearly seen to indicate proper switch alignment, the movement may proceed without stopping. Notify the train dispatcher of malfunction.

Movement Completely Through a Radio Controlled Switch Location

After movement has been made through a RCS location, the switch point indicator will display an indication to stop and inspect switch and the switch will remain in the normal position. If switch was reversed, it will return to the normal position.

Route Change

If necessary to change the route that was originally requested, movement must stop outside the OS circuit limits and:

- Wait 15 minutes and then enter the proper sequence to line the switch for the desired route.
- Wait 15 minutes and then operate the push-button on the signal bungalow to line the switch for the desired route.
or
- Operate the switch by hand as outlined in Rule 9.13.1 (Hand Operation of Dual Control Switches) to line the switch for the desired route.

Additional Instructions

The RCS will not operate if the OS circuit at the RCS location is occupied. A proper sequence or push-button request must be made and confirmation of proper switch alignment must be received before movement enters the OS circuit limits at the RCS location.

Rule : 8.20 Derail Location and Position

Change last paragraph to read:

Derails that are used in conjunction with worker protection must be in the derailing position with proper flag displayed only when their use is required for such protection. When their use is not required for protection:

- Remove portable derails, then remove flag.
or
- Lock fixed derails in non-derailing position with an effective locking device, then remove (take down) flag.

Rule : 9.8 Next Governing Signal

Add:

This rule does not apply on UPRR. Comply with the signal indication until passing the next governing signal.

Rule : 9.9 Train Delayed Within a Block

Add to Part B:

Passenger trains operating in push/pull service must not exceed 40 MPH until the next signal is visible and that signal displays a proceed indication.

Rule : 9.11 Movement from Signal Requiring Restricted Speed

Add exception to read:

Exception:

If a train is within ACS or ATC territory, with operative cab signals, the train may immediately comply with the cab signal indication.

Rule : 9.12.4 ABS Territory

Add:

D. Control Point Locations

At control point locations, if no conflicting movement is evident, a crew member must immediately contact the control operator for authority to pass the Stop indication unless the control point is within the train's track permit limits.

Add:

Application:

Examples of joint authority beyond the signal in Part A 1: Work Between, Yard Limits, Restricted Limits.

9.13 When Instructed to Operate Dual Control Switches by Hand

Change Rule To Read :

If the control operator cannot line the dual control switch to the desired position, or the control machine does not indicate that the switch is lined and locked, before authorizing movement the control operator and crew must have a clear understanding specifying:

- The control point.
- Route.
- Switch(s) that must be operated by hand.

The control operator may then authorize movement past the Stop indication and instruct the employee to operate the switch(s) by hand.

Movement may then proceed as authorized only after a clear understanding is reached with all crew members specifying the control point, route and switch(s) that must be operated by hand.

Before passing over a switch specified by the dispatcher, the train must stop and the employee must operate the switch by hand as outlined in Rule 9.13.1 (Hand Operation of Dual Control Switches). After at least one unit or car has passed over the switch points, the employee must return the switch to power unless otherwise instructed by the control operator. If any additional facing point switches are in the route, the crew must stop and verify the switches are lined for the intended route and the switch points fit properly.

Rule : 9.13.2 Performing Switching

Add new rule:

When necessary to place a dual control switch in hand operation to perform switching the crew must:

- Complete a job briefing with the control operator on moves to be made.
- Receive authority to enter the control point.
- Receive permission to place the switch in hand operation.

Crew will then comply with Rule 9.13.1, except do not return switch to power until final movement has been made over the switch.

Notify the control operator when switch has been returned to power. Further movements must be made by signal indication or as authorized by the control operator.

Rule : 9.14.2 Controlled Block System (CBS)

Add new rule:

On tracks designated in the timetable, movements will run in the direction specified by verbal authority from the train dispatcher or a controlled signal displaying a proceed indication. This authority will establish the current of traffic for the movement. Before granting authority, the train dispatcher must know that conflicting movements are protected.

A train must not enter or occupy any track in CBS limits unless:

- A controlled signal indicates proceed.

or

- Verbal authority is granted.

A movement must proceed only in the direction authorized unless authority is granted by Rule 9.15 (Track Permit).

A movement authorized in one direction must report to the train dispatcher when it has cleared the main track within CBS limits. A movement that clears the main track within CBS limits must not reenter that track without new authority unless within Track Permit limits.

In CBS limits, Rule 9.15 (Track Permits) is in effect.

Rule : 9.15.1 Issuing Track Permits

Change second paragraph under Track Permit Acknowledgment part to read:

The employee will repeat the preprinted information and information transmitted by the train dispatcher including what has been entered in the summary, "This authority has (total number) boxes marked: (individual box numbers)."

Rule : 9.17 Entering Main Track at Hand-Operated or Spring Switch

Part A. When Hand Operation of a Spring Switch or 5 Minute Wait Is Not Required

Change condition (2) to read:

2. Track occupancy indicator indicates track is clear at locations specified in timetable special instructions.

Rule : 9.23.1 Guidelines While Block System Is Suspended**Change Rule To Read :**

When a block system or sections of it are suspended, the following guidelines govern:

A Track Bulletin will specify, when applicable:

- The affected tracks and milepost limits of the suspension.
- The location(s) of flagmen who may authorize trains to enter or to proceed at intermediate locations within the suspended limits, specifying track(s) when necessary.
- The position of dual control switches at the end of multiple main tracks.
- Dual control switches that have been locked in hand operation for main track movement.
- Actions to be taken where automatic crossing warning devices are affected.
- When track warrants may be used to authorize movement.

Crew members must:

- Follow rules that apply to non-signaled territory and not exceed 59 MPH for passenger trains or 49 MPH for other trains.
- Disregard extinguished or illuminated block and interlocking signals, unless specified by track bulletin, except when those signals:
 - Govern movements over railroad crossings at grade.
 - Are connected with trackside warning detectors.
- Approach the beginning and end of the suspended limits prepared to stop. When suspension ends at a block signal identified as in service, trains must approach that signal prepared to stop until its aspect can be clearly seen.
- If suspension begins at an in service control point, signal indication will only authorize movement through the control point, not beyond it.
- If suspension does not end at a signal identified as in service, trains leaving the limits and moving into block system territory must move at restricted speed to the first signal in service beyond the limits.

Movements over Railroad Crossings at Grade and Drawbridges:

- Signals that govern movement over railroad crossings at grade and drawbridges must be regarded as displaying a Stop indication, regardless of the aspect displayed, unless the track bulletin specifies that the signals are in service or flagman at that location authorizes movement.
- Crew members must not rely on time release or key controller operation as adequate protection to move over the crossing, unless instructed that they are in service.

Dual Control Switches:

Unless notification has been received from the train dispatcher that dual control switches are:

- Locked in hand operation and are lined for intended movement.

or

- Atended by a flagman;

Trains must stop and crew member must:

- Hand operate and lock dual control switches for main track movement.
- Leave switches locked in hand operation.
- Notify the train dispatcher that switches have been locked in hand operation and lined for main track movement.

Remote control switches not equipped for hand operation will be spiked or clamped and all concerned notified.

Spring Switches:

Spring switches removed from service must be spiked and those concerned notified. If spring switches are left in service, trains making facing point movements must be prepared to stop and test the switch, unless it is known that the switch is properly lined for the diverging route.

Block System Returned to Normal:

Train Dispatcher must notify crew members within the affected territory before permitting other trains to enter the limits when the block signal system will be returned to normal operation.

Rule : 10.3 Track and Time

Application of the second paragraph:

When the track and time includes "Switch Yes," the limits include that switch and the track between the absolute signals governing movement over the switch.

Application of the boxed sentence:

Track and time limits are sometimes issued across an interlocking. Track and time provides authority to be on the main track in CTC on both sides of the interlocking; however, it does not provide authority to occupy the interlocking limits. Interlocking rules must be complied with.

Rule : 10.3.4 Track and Time Acknowledgment

Change second paragraph to read:

The employee will repeat the preprinted information and information transmitted by the train dispatcher including what has been entered in the summary, "This authority has (total number) boxes marked: (individual box numbers)."

Rule : 12.1 Required Equipment

Delete the word "passenger".

Rule : 13.1.5 Departure Test

Add new rule :

A cab signal departure test must be made at the initial terminal of the locomotive. The certification of the departure test shall be recorded on the proper form and posted in the locomotive cab, with a copy left at the test location for filing in the office of the supervisor having jurisdiction. If it is impractical to leave a copy of the certification and test results at that location, then the results must be transmitted to either the train dispatcher or another designated individual before entering equipped territory. A written record of the test results and the name of the person performing the test shall be retained for 92 days at these locations.

The departure test must determine that:

1. The ACS device is operative and cut-out handle is sealed.
2. The cab signal apparatus reflects all aspects according to the code rates.
3. Acknowledgment of all more restrictive aspects will silence the audible indicator and forestall a penalty brake application.
4. Not acknowledging the restrictive indication will initiate a full service penalty brake application within eight (8) seconds.

Rule : 14.0 RULES APPLICABLE ONLY WITHIN TRACK WARRANT CONTROL (TWC) LIMITS

Change form to read :

TRACK AUTHORITY FORM – T&Y

Track Warrant Track & Time Track Permit

Number: _____ Date: _____
 To: _____ At: _____

1. Track warrant _____ is void
2. Not in effect until after the arrival of _____ at _____
3. Proceed from _____ to _____ on _____ track _____ Subdivision
4. Hold Main Track at last named point
5. Clear Main Track at last named point
6. Do not foul limits ahead of _____
7. Work between _____ and _____ on _____ track _____ Subdivision
8. Authority granted between CP _____ on _____ (track) Switch Yes / No
 _____ CP _____ on _____ (track) Switch Yes / No
 Joint _____ Blocked until _____ Extended to _____
9. Limits jointly occupied between _____ and _____
 (NOTE: Trains must move at restricted speed within joint authority limits)
10. Joint with _____ between _____ and _____
 Joint with _____ between _____ and _____
 Joint with _____ between _____ and _____
11. Do not exceed _____ mph between _____ and _____
 No flags displayed _____ Flags displayed at MP _____ for _____ trains
 Do not exceed _____ mph between _____ and _____
 No flags displayed _____ Flags displayed at MP _____ for _____ trains
 Do not exceed _____ mph between _____ and _____
 No flags displayed _____ Flags displayed at MP _____ for _____ trains
12. Comply with Procedure _____ at/between MP _____ and MP _____
 Comply with Procedure _____ at/between MP _____ and MP _____
 The _____ switch at _____ is lined for siding
 The _____ switch at _____ is lined for siding
 Leave the _____ switch at _____ lined for siding
 Leave the _____ switch at _____ lined for siding

_____ Box(es) marked: _____
 OK at _____ Dispatcher _____ Relayed to _____ Copied by _____
 Clear of _____ at _____ ~~Q/TA~~ by _____
 Clear of _____ at _____ ~~Q/TA~~ by _____
 Clear of _____ at _____ ~~Q/TA~~ by _____
 Limits reported clear at _____ by _____

Rule : 14.3 Operating with Track Warrants
Change diagram "A" as follows:

Change that part reading:
 Authority Boxes 2 and 8
 To read:
 Authority Boxes 3 and 4

Change that part reading:
 Authority Box 4 between Anna and West Switch Bess
 To read:
 Authority Box 7 between Anna and West Switch Bess

Rule : 14.6 Movement Against the Current of Traffic**Application:**

This rule does not apply on UPRR unless designated in the timetable.

Rule : 14.7 Reporting Clear of Limits**Change entire rule to read:**

Before reporting clear of the limits or reporting having passed a specific location, confirm with the dispatcher that the conductor and engineer have discussed their location and are in agreement with limits or warrant being released.

Communication must include the track warrant number when releasing track warrants.

A train without a crew member on the rear and operating in non-signaled or double track territory may report clear of the limits, report having passed a specific location, or release the track between two specific locations only when it is known the train is complete. This must be determined by one of the following ways:

1. The rear of the train has a rear-end telemetry device, and air pressure on the head-end device indicates brake pipe continuity.
2. An employee verifies the marker is on the rear of the train.
3. A crew member can observe the rear car of the train on which the marker is placed.
4. The train is stopped, and an inspection verifies that the marker is on the rear car of the train.
5. A trackside warning detector transmits an axle count for the train, and the axle count duplicates the axle count transmitted by the previous trackside warning detector.

In non-signaled territory comply with the requirements outlined in Rule 8.3 (Main Track Switches) and advise the train dispatcher:

- All main track switches operated have been restored and locked in normal position.
- The crew has completed the job briefing.
- The conductor report form is properly initialed.

When a hand-operated switch is used to clear the main track, except where Rule 6.13 (Yard Limits) or Rule 6.14 (Restricted Limits) are in effect, advise the train dispatcher of the position of the switch and that the switch is locked when reporting clear of track warrant limits. Train dispatcher shall repeat the reported switch position and employee releasing the limits shall confirm to the train dispatcher this information is correct.

Application

Engineer and conductor are jointly responsible to ascertain and agree on the exact location their entire train has passed before reporting past a specific location or clearing their track warrant limits.

'Roll-up'

When the train dispatcher requests a crew to report a train's location to shorten up or 'Roll-up' an active track warrant the following communication will apply:

Train dispatcher: 'I need to roll-up track warrant (number). What will protect the rear of your train, over?'

When reporting past a specific location:

- Engineer and conductor will job brief and agree on train's location and location entire train is past.
- When using a milepost location, communication with the train dispatcher will include a whole milepost number (not tenths) the entire train is past.
- When using railroad identifiable points that include a direction, such as a siding switch, state and spell direction i.e. "North (N O R T H) siding switch at Dora".

Conductor: 'Milepost (number) covers the rear of our train, dispatcher. Conductor (Name) ready to copy, over

After initial communication the train dispatcher will initiate 'Roll-up':

Sample radio transmissions:

Train Dispatcher: 'Track Warrant #4655, UP 2467 is clear of MP 362, over.'

Conductor: 'Track Warrant #4655, UP 2467 is clear of MP 362, over.'

Train Dispatcher: 'That is correct at 0817, dispatcher BAF, copied by Smith, over.'

Conductor: 'Correct at 0817, dispatcher BAF, Smith, over.'

Train Dispatcher: 'That's correct, Dispatcher Out.'

Rule : 14.9 Copying Track Warrants

Change Part A. to read :

A. Transmitting Track Warrants

1. The train dispatcher will transmit the track warrant. The train dispatcher will not transmit the summary.
2. An employee will enter all of the information transmitted by the train dispatcher. The employee will then check the information copied to ensure all items are correct and enter in the summary the total number of boxes marked and individual box numbers.
3. The employee will repeat the preprinted and information transmitted by the train dispatcher including what has been entered in the summary, "This track warrant has (total number) boxes marked: (individual box numbers)."
4. The train dispatcher will check the repeat and summary, and if all information including the summary is correct; will say "OK" and give the time and his/her initials.

The employee will enter the OK time and the train dispatcher's initials on the track warrant and repeat them to the train dispatcher.

Rule : 14.11 Changing Track Warrants

Add Note:

Note: This does not prohibit additions or changes authorized by the rules (e.g. Rule 14.7).

Rule : 14.13 Mechanical Transmission of Track Warrants

Add the following paragraph:

The crew must verify the designated limits and any conditions of track warrants that convey authority with the train dispatcher before initiating movement on main track.

Rule : 15.0 TRACK BULLETIN RULES - TRACK CONDITION SUMMARY

Form B's will have asterisks before and after the bulletin. When flags are displayed in less than the prescribed distance, the milepost and direction will be shown. If flags are not displayed "NOT" will be shown.

Example: Track Condition Summary

NO: (Track Warrant) TO: (Train ID)

Subdivision (000)

42683(2) 42554(3) 42276(2) 42034

LINE NO.	FROM MP	LIMITS TO MP	MPH	TRACK(S) AFFECTED	FLAG	FLAG AT MP	FOR DIR	FROM DATE	TIME	UNTIL DATE	TIME
----------	---------	--------------	-----	-------------------	------	------------	---------	-----------	------	------------	------

FORM A NO. 42683

1.	43.9	44	40	MT 2		43	WWD	04/07/14	1220		
----	------	----	----	------	--	----	-----	----------	------	--	--

2.	46.6	47.1	40	MT 2				04/11/14	1318		
----	------	------	----	------	--	--	--	----------	------	--	--

FORM A NO. 42554

1.	51	51.2	40	MT 2				04/10/14	1102		
----	----	------	----	------	--	--	--	----------	------	--	--

2.	55.5	55.6	40	MT 2				04/10/14	0100		
----	------	------	----	------	--	--	--	----------	------	--	--

LINE NO.	FROM MP	LIMITS TO MP	TIME FROM	UNTIL	TRACK(S) AFFECTED	FLAG AT MP	FOR DIR	GANG NO / FOREMAN
----------	---------	--------------	-----------	-------	-------------------	------------	---------	-------------------

*****FORM B NO. 42276*****

ON 04/14/14 RULE 15.2 APPLIES WITHIN THE FOLLOWING LIMITS:

1.	113	118	0700	1900	MT 1	112	WWD	4763 GUTZ
----	-----	-----	------	------	------	-----	-----	-----------

2.	113	118	0700	1900	MT 2	112	WWD	4763 GUTZ
----	-----	-----	------	------	------	-----	-----	-----------

LINE NO.	FROM MP	LIMITS TO MP	MPH	TRACK(S) AFFECTED	FLAG	FLAG AT MP	FOR DIR	FROM DATE	TIME	UNTIL DATE	TIME
----------	---------	--------------	-----	-------------------	------	------------	---------	-----------	------	------------	------

FORM A NO. 42554

3.	114.4	116.3	60	MT 2				04/10/14	1118		
----	-------	-------	----	------	--	--	--	----------	------	--	--

FORM C NO. 42034

Date 04/03/14

1. SIDING AT WILD OUT OF SERVICE SWITCHES ARE SPIKED AND TAGGED

For Train Movements in the Opposite Direction.

Example: Track Condition Summary

NO: (Track Warrant)

TO: (Train ID)

Subdivision (000)

42276(2) 42554(3) 42683(2) 42034

LINE NO.	LIMITS FROM MP TO MP		TIME FROM UNTIL	TRACK(S) AFFECTED	FLAG AT MP	FOR DIR	GANG NO / FOREMAN	
*****FORM B NO. 42276*****								
ON 04/14/14 RULE 15.2 APPLIES WITHIN THE FOLLOWING LIMITS:								
1.	118	113	0700 1900	MT 1	112	WWD	4763	GUTZ
2.	118	113	0700 1900	MT 2	112	WWD	4763	GUTZ
LINE NO.	LIMITS FROM MP TO MP		MPH	TRACK(S) AFFECTED	FLAG AT MP	FOR DIR	FROM DATE	UNTIL DATE TIME
FORM A NO. 42554								
3.	116.3	114.4	60	MT 2			04/10/14	1118
2.	55.6	55.5	40	MT 2			04/10/14	0100
1.	51.2	51	40	MT 2			04/10/14	1102
FORM A NO. 42683								
2.	47.1	46.6	40	MT 2			04/11/14	1318
1.	44	43.9	40	MT 2	43	WWD	04/07/14	1220

FORM C NO. 42034 DATE 04/03/14
 1. SIDING AT WILD OUT OF SERVICE SWITCHES ARE SPIKED AND TAGGED

Below the last line of data there will be a blank line then the page number. Nothing should be printed below the page number.

OK times and Train Dispatchers initials are not shown.

Form A and Form B Track Bulletins

On the subdivision summary page, the track bulletin number for Form A and Form B bulletins will have, in parenthesis, the number of line items for that track bulletin. Because of the sorting by milepost, any particular Form A or Form B bulletin may be split by another Form A or Form B in the body of the Track Condition Summary.

Form C Track Bulletins

Form C track bulletins for a particular subdivision will be listed after the Form A and Form B bulletins for that subdivision with two exceptions.

- Listed first on the Track Condition Summary will be Form C bulletins that apply to the entire system. The subdivision heading will be "System Bulletin All Subdivisions".

- Form C bulletins issued on multiple subdivisions will be listed next. These will only be listed once; the subdivision heading will show all the subdivisions that the bulletin has been issued on.

15.1 Track Bulletins

Example Track Warrant for Bulletins			
NO: (Track Warrant)	FROM: (Location)	TO: (Location)	DATE: 4/25/2014
TO: (Train ID)	(Train Symbol)	AT: (Location)	
ON: Subdivision (000)			
16.(X) 4 TRACK BULLETINS IN EFFECT: 42034 42683 42554 42276			
17.(X) OTHER SPECIFIC INSTRUCTIONS:			
THIS WARRANT IS USED TO DELIVER TRACK BULLETINS ONLY AND DOES NOT CONVEY AUTHORITY TO OCCUPY THE MAIN TRACK.			
OK (time) DISPATCHER ABC RELAYED TO:		COPIED BY:	

15.1 Track Bulletins

Change fifth paragraph under Receipt and Comparison of Track Bulletins; add note as follows:

At locations where track warrants listing track bulletins are received by printer or fax, crew members must verify that route description, if printed, covers the intended route of their train and that the track warrant includes the correct train ID and train symbol of their train. If it does not, contact the train dispatcher and determine if the track warrant is valid. Also, crew members must check the date and "OK" time on the track warrant and if the track warrant is over 4 hours old, contact the train dispatcher and determine if additional track bulletins are needed.

Note: After receiving track warrant, if a crew is assigned to operate a train with a train symbol different than the one listed on their track warrant, the above applies.

Application:

Having a copy of the 'Track Condition Summary' meets the requirement of having a copy of the bulletins listed.

Rule : 15.1.1 Changing Address of Track Warrants or Track Bulletins

Add second sentence to rule reading:

However, crews performing yard or hostling service, using the main track at a yard or terminal, may change the engine number or train symbol on track warrants or track bulletins received from the train dispatcher without communicating with the train dispatcher.

Rule : 15.2 Protection by Track Bulletin Form B

Change third paragraph to read:

A crew member must attempt to contact the employee in charge sufficiently in advance to avoid delay, giving the train's location and track being used. The crew member must inform the employee in charge if there are any

excessive dimension loads in the train. The employee in charge will use the following format to establish communication with the train:

Foreman (name and/or gang number) using Track Bulletin No.____ (specifying line number when necessary) between MP____ and MP____ (specifying subdivision when necessary).

Change first bullet in part A. Instructions to read:

- (Train ID) may pass the red flag at MP____ and proceed at (one of the following), (specifying track when necessary):

Application:

When two Form B track bulletins meet at adjoining subdivisions resulting in a continuous Form B restriction with the same employee in charge and the same time limits, the employee in charge may grant permission and give instructions to the train concerning both Form B's at the same time. The communication will begin using the following format:

Foreman (name) using 2 track bulletins. Track Bulletin No.____ Line No. _____ Subdivision _____ and Track Bulletin No. ____ Line No. _____ Subdivision _____ between MP _____ and MP _____ (outer mileposts).

Rule : 15.2.2 Protection of Non-Railroad Contractors

Add new rule :

When authorized non-railroad employees or non-railroad contractors are working near a main track or controlled siding, protection will be provided as outlined below.

- When working within 10 feet of the track, protection will be provided by use of a track bulletin, track and time, track permit, track warrant, or other means of protection. Except in California or when work will be performed foul of the track, a Form C track bulletin may be used:

"EFFECTIVE ON (DATE) FROM (TIME) UNTIL (TIME) BETWEEN MP____ AND MP____
PROCEED PREPARED TO STOP SHORT OF MEN AND EQUIPMENT NOT TO EXCEED
20 MPH UNLESS INSTRUCTED OTHERWISE BY FOREMAN (NAME)."

Train receiving track bulletin must proceed within the limits prepared to stop short of men and equipment and not exceed 20 MPH until leading wheels have cleared the limits unless instructed otherwise by the employee in charge. Whistle signal 5.8.2 (8) will be sounded.

- When working between 10 and 25 feet of the track, trains will be notified of their presence by issuance of a Form C track bulletin that reads:

"CONTRACTORS ARE WORKING AT LEAST 10 FEET FROM THE TRACK AT THE
FOLLOWING LOCATION(S): (IDENTIFIED AT MP____ OR BETWEEN MP____ and
MP____)."

A watchman must ensure workers and equipment remain at least 10 feet from the track.

Railroad employees who observe work being performed within the boundaries of railroad right-of-way without notification as outlined above should report this information to the train dispatcher for further action.

Rule : 15.4 Protection when Tracks Removed from Service

Change Rule To Read :

Before a track is removed from service it must be protected.

A track bulletin may protect tracks removed from service by designating the track and naming the points at each end of the track. Trains must not use this track unless the track bulletin states the name or title of an employee who may authorize use. This person will direct all movements. Movements must be made at restricted speed unless instructed otherwise by the employee in charge. Movements may then proceed as instructed and in accordance with signal indications.

The control operator must grant authority to pass an absolute signal displaying a Stop indication at control points at either end of the out of service track. Except at interlockings, after stopping, movements may pass Stop indications within the out of service track. When required, the train dispatcher must advise crews of alternate routes and switch positions.

Rule : 15.12 Relief of Engineer or Conductor During Trip

Change Rule To Read :

When being relieved before a trip is finished, contact the train dispatcher and comply with instructions concerning the handling of track warrants, track bulletins, and other instructions.

When crew members are called to relieve a train at other than the initial station, crew members must contact the train dispatcher before leaving the initial station and determine if any track warrants, track bulletins, or other instructions must be obtained.

Comparison of Information

The relieving conductor and engineer must compare:

- Track warrants, track bulletins, instructions, and pertinent information with each other.
- Their track warrant for bulletins number with the train dispatcher. The train dispatcher will verify that the warrant includes all required track bulletins and will provide any additional restrictions required for the route.

Rule : 15.12.1 Relief of Engineer or Conductor at Crew Change

Add new rule :

When making a crew change, relieving crew members must determine from the inbound crew if there are any unforeseen restrictions issued that have not been fulfilled/traversed or tasks in progress (e.g. air test). When not relieved by another crew, the inbound crew must leave this information in writing for the relieving crew and notify the dispatcher of tasks not completed. In addition, at locations where a yardmaster is on duty, the yardmaster must also be notified.

15.13 - Voiding Track Bulletins

B. Issue Track Bulletin or a Track Warrant to Void a Track Bulletin

Change that part reading:

Issue a track bulletin or use the line designated "OTHER SPECIFIC INSTRUCTIONS" on a track warrant using one of the following examples:

To read:

Issue a track bulletin or use the lines designated on Box 12 on a track warrant using one of the following examples:

Rule : 15.13.1 Verbally Raising a Speed Restriction

Add new rule:

The train dispatcher may verbally raise the speed on an existing speed restriction, Rule 2.14 (Mandatory Directive) applies. The train dispatcher must identify the existing speed restriction; e.g., Form A 1234, line 2. After a crew member informs the train dispatcher they have located the speed restriction and are ready to copy, the train dispatcher will use the following format:

(Train ID) Track Bulletin _____, Line No MP ___ to MP ___, ___MPH (adding track if necessary), speed is increased to ___ MPH.

The employee will draw a line through the existing speed on the track condition summary form, write the new speed adjacent to the old speed, and then repeat the information to the train dispatcher. If the information is correct, the train dispatcher will state "OK", with the time and the train dispatcher's initials, which must be repeated by the employee.

The new speed must not be acted upon until the train dispatcher states 'OK', and gives the time and the train dispatcher's initials.

Rule : 17.4 Departure Test Requirements

Application:

Procedures for Locomotives with Automatic Testing Equipment

A. Locomotives with solid state Union Switch & Signal ATC/CCS System:

1. With the locomotive standing on dead track, fully apply the independent brake and release the automatic brake and:
 - a. Place the generator field switch in the ON position.
 - b. Turn on the signal circuit breaker.
 - c. Place the reverser in Forward.
2. Place CNW Cut-out switch in cut in position.
3. Place CNW Cut-out cock in cut in position and seal.
4. After opening the departure test box, put the test switch in the ON position. As the ATC system begins internal testing, Clear and Restricting cab signals are turned off and the motion light flashes.

5. After the internal test is complete (approximately 10 seconds), a Clear cab signal is illuminated and the acknowledge alarm is activated. Press and release the acknowledge button.

a. The Clear is then turned off.

b. A Restricting cab signal is illuminated and acknowledge alarm is activated. Press and release the acknowledge button.

c. The Restricting is then turned off.

6. The system then drives the speedometer to:

a. Locate the Union Pacific overspeed setting and repeats this process four times.

b. Test the CNW Restricted overspeed setting of 23 MPH.

c. A Restricting is illuminated and acknowledge alarm is activated. Press and release the acknowledge button. The system then drives the speedometer to the CNW high speed setting.

d. A Clear is illuminated and acknowledge alarm is activated. Press and release acknowledge button.

e. The Clear is turned off and speedometer is returned to 0 MPH.

7. Fully release independent brake.

a. The acknowledge alarm is activated (do not acknowledge).

b. A penalty brake application should occur within 8 seconds.

c. Recover the air.

8. The successful completion of the departure test will result in:

a. The overspeed alarm beeping continuously.

b. All signal lights flashing.

9. Place the Departure Test Switch to OFF position.

10. If the locomotive is to be operated in non ATC territory prior to entering ATC territory, push the Arm button after completing the departure test (see Item 8).

11. If departure test is unsuccessful, repeat the test. If the test is again unsuccessful, perform an ATC departure test as prescribed by Rule 17.4.

B. Locomotives with MICROCAB System:

1. Turn on the DEPT TEST SWITCH and:

- a. The MOTION indicator is illuminated throughout Departure Test. The overspeed alarm activates intermittently for 1 second, then goes silent to indicate the start of the test.
- b. The system waits for 6 seconds before proceeding to the next step.
- c. The overspeed alarm activates intermittently for 1 second, then is silent to indicate the end of the delay.
- d. Within 5 seconds the Clear cab signal is illuminated.

2. When the acknowledge alarm is activated, the acknowledge switch must be pressed and released within 6 seconds to avoid a penalty brake application.

- a. Within 5 seconds the Clear is extinguished and the Restricting cab signal illuminated. When the acknowledge alarm is activated press and release the acknowledge switch.
- b. The Restricting cab signal is then extinguished. Failure to respond within 6 seconds results in a penalty brake application.
- c. The overspeed alarm is activated intermittently for 1 second, then is silent to indicate the completion of carrier tests.

3. The system then drives the speedometer to the high speed setting and:

- a. Visually confirm that the expected speed (within 3 MPH) is displayed by the speedometer.
- b. The acknowledge alarm is activated continuously. Press and release the acknowledge switch.

4. The system then drives the speedometer to the restricted overspeed of 23 MPH. Visually confirm that the speedometer displays the expected speed (within 1 MPH).
 - a. The acknowledge alarm sounds continuously. Press and release the acknowledge switch.
 - b. The system stops driving the speedometer and it returns to 0 MPH.
 - c. The overspeed alarm sounds for approximately 1 second.
 - d. When the alarm is silent, the test is confirmed.

5. The system waits indefinitely for the operator to press and release the acknowledge switch.
 - a. Upon releasing the switch the overspeed alarm is activated intermittently for 1 second, then silenced to indicate the start of a penalty delay.
 - b. In about 6 seconds, the system initiates a penalty brake application. The acknowledge alarm sounds continuously.
 - c. Recover the air.

6. The intermittent sound of the overspeed alarm prior to the DEPT TEST SWITCH being turned off indicates that the Departure Test has been successfully made.
 - a. Turn off the DEPT TEST SWITCH. A Restricting cab signal is illuminated.
 - b. The acknowledge and over speed alarms are silent.

If the locomotive is to be operated in non ATC territory prior to entering ATC territory, push the Arm button after completing the departure test.

Rule : 17.4.2 ATC Automatic Cut-in Circuit

Add new rule :

A departure test entering ATC territory is not required for engines equipped with the automatic ATC cut-in circuit when the following conditions are met:

- The ATC actuator is cut in and sealed.
- The motion light is illuminated enroute to ATC territory at speeds of 6 MPH or more.

At ATC Automatic Cut-in Test Locations:

- The cab signal will display a Clear aspect when passing a "B" sign (Beginning ATC test section). The speed whistle will sound for 3 or 4 seconds.
- The cab signal will change to a Restricting aspect when the "E" (End ATC test section) is passed.
 - When train speed exceeds 40 MPH the high speed whistle will sound until a Clear aspect is displayed.
 - When train speed is below 40 MPH the horn will sound and must be acknowledged.

Rule : 17.7 ATC Failure/Cut-out Enroute

Add note:

Note: Continuous block signal territory is designated on the subdivision page where ATC is in effect.

Rule : 17.8 Improper Display

Add note:

Note: The cab signal indication may change within 300 feet of a hand operated switch (before or after). The cab signal may change from Restricting to Clear before (within 300 feet) an opened hand operated switch. This is normal due to track circuitry and would not be considered an improper display of the cab signal.

GLOSSARY

Abbreviations

Add:

OCT Other Controlled Track

SI Special Instructions

SSI System Special Instructions

Add:

Adjacent Track

Parallel tracks that are not separated by a single lane roadway or similar distance are considered adjacent tracks.

Note: This definition only applies when determining if Track Breach Protection is required.

Automatic Train Control (ATC)

Change to read:

A system to enforce compliance with cab signal indications. If the train exceeds a predetermined speed for a given cab signal indication and speed is not reduced at a sufficient rate, brakes are automatically applied.

Add:

Breach

To enter an area between two adjacent tracks.

Add:

Cab Red Zone

A "Cab Red Zone" (CRZ) exists during critical times or when multiple tasks are occurring. During a Cab Red Zone, an environment must be created in the locomotive control compartment that focuses exclusively on controlling the train, verbally communicating restrictions, and proper application of the rules.

Crossover**Change to read:**

A combination of two switches that connect two adjacent tracks, normally used for crossover movements.

Add:**Electronic Device**

An electronic or electrical device used to conduct oral, written, or visual communication; place or receive a telephone call; send or read an electronic mail message or text message; look at pictures; read a book or other written material; play a game; navigate the Internet; navigate the physical world; play, view, or listen to a video; play, view or listen to a television broadcast; play or listen to music; execute a computational function; or, perform any other function that is not necessary for the health or safety of the person and that entails the risk of distracting the employee or another employee from a safety related task.

Add:**Gravity Switch**

A switching process using gravity to reposition cars on the opposite end of a locomotive, without using locomotive to start movement of cars. See Rule 7.7.1.

Add:**Humping Cars**

Allowing cars to roll under their own momentum during cresting operations at a hump yard.

Add:**Jump Frog**

A main track frog designed for use with low traffic turnouts. The main track side is made up of an unbroken rail and the turnout side carries the wheel over the main track rail by supporting the flange of the wheel.

Add:**Kicking Cars**

To shove a car a short distance and uncouple it in motion.

Add:**Other Controlled Track (OCT)**

A segment of track (not main track or siding) between Control Points that is governed by GCOR Chapter 10 (CTC) rules. Locations of OCT are listed in the timetable.

Add:**Radio Speed Restriction**

A speed restriction received from the train dispatcher while enroute.

Add:**Railroad Operating Employee**

An individual who is engaged in or connected with the movement of a train including a hostler, a train employee providing commuter or inter-city rail passenger transportation, or is subject to hours of service governing train service employees.

Add:

Spur Track

A track connected to another track at only one end, also referred to as a stub track.

Add:

Stowed

When required by Rule 2.21, electronic devices including cell phones, laptops, cameras, DVD's, etc., must be turned off and placed out of sight in the employee's grip, luggage, back pack, etc. Electronic devices placed in pockets or device holsters are not considered as being stowed.

Add:

Switch Providing Direct Access

A switch that if used by rolling equipment could permit the rolling equipment to enter the track and couple to other equipment.

Add:

Train Dispatcher

Employee assigned to operate a CTC or interlocking machine, transmit or deliver orders affecting train movements, and supervise train movements and any employees connected with that movement, including control operators.

Add:

Train ID

Trains will be identified by initials and engine number, adding the direction when required. When an engine consists of more than one unit or when two or more engines are coupled, the number of one unit only will be illuminated as the identifying number. The identifying number will be the number of the lead unit, unless changing direction during a trip or tour of duty when that unit is no longer the lead unit.

Add:

Yard Access Crossing

A grade crossing that is located within the physical confines of a railroad yard and is either:

- Open to unrestricted public access;
- or
- Open to persons other than railroad employees going about their normal duties, e.g., business guests or family members.

[^Top](#)

Item 10-B: Reserved

Reserved

Rule Updated Date

July 2, 2013

[^Top](#)

Item 10-C: Air Brake & Train Handling Rules, Chapters 30 to 39

[^Top](#)

Item 10-D: Maintenance of Way Rules, Chapters 40 to 69

[^Top](#)

Item 10-E: Safety Rules, Chapters 70 to 89

Statement of Safety Policy

Change entire policy to read:

It is Union Pacific Railroad's policy to conduct its business in a manner that addresses the safety of employees, contractors, customers and the communities we serve. Union Pacific will strive to prevent all incidents, accidents, injuries and occupational illnesses through the active participation of all stakeholders. The company is committed to continuous efforts to identify and manage safety risks associated with its activities.

Accordingly, Union Pacific's policy is to:

- Encourage and support:
 - Employee engagement in workplace safety;
 - A Total Safety Culture;
 - Care for employees;
- Maintain infrastructure and equipment, establish documented safety management systems, provide training and conduct operations in a manner aimed at safeguarding people and property;
- Communicate with employees, contractors, communities and customers with respect to their roles and responsibilities surrounding rail safety.
- Comply with all applicable laws, regulations, rules and instructions.
- Respond quickly, effectively, and with care to emergencies, accidents, or incidents in cooperation with authorized government agencies;
- Undertake appropriate reviews and evaluations of its operations to measure progress, foster compliance with this policy and continually improve.

Change Rule To Read :

It is Union Pacific Railroad's policy to conduct its business in a manner that addresses the safety of employees, contractors, customers and the communities we serve. Union Pacific will strive to prevent all incidents, accidents, injuries and occupational illnesses through the active participation of all stakeholders. The company is committed to continuous efforts to identify and manage safety risks associated with its activities.

Accordingly, Union Pacific's policy is to:

- Encourage and support:

- Employee engagement in workplace safety;
- A Total Safety Culture;
- Care for employees;
- Maintain infrastructure and equipment, establish documented safety management systems, provide training and conduct operations in a manner aimed at safeguarding people and property;
- Communicate with employees, contractors, communities and customers with respect to their roles and responsibilities surrounding rail safety.
- Comply with all applicable laws, regulations, rules and instructions.
- Respond quickly, effectively, and with care to emergencies, accidents, or incidents in cooperation with authorized government agencies;
- Undertake appropriate reviews and evaluations of its operations to measure progress, foster compliance with this policy and continually improve.

70.18 - Fusees

A. Fusee Storage

Change first bullet to read:

- In metal containers inside motor vehicles and other designated equipment.

71.4 - Hard Hats

Change first sentence to read:

Hard hats must be worn at the following facilities and work sites:

- Locomotive.
- Car.
- Engineering.
- Intermodal.
- In other designated hard hat areas as specified by department head.

Change Exceptions to read:

Exceptions:

1. A track welder, wearing a Powered Air Purifying Respirator (PAPR), will not be required to wear a hard hat when working in areas where there is no potential for injury to the head from falling objects.
2. Intermodal personnel are not required to wear hardhats when:
 - Mechanical personnel are working under intermodal equipment.
 - Hostlers are on equipment adjusting air lines.
 - Personnel are going to and from personal vehicle parking areas.
3. Transportation employees are not required to wear hardhats when:

- Moving locomotives to or from locomotive service areas,
- Spotting cars within car or maintenance of way repair facilities.
- Switching cars within intermodal ramps

Rule : 71.6.1 Highly Visible Outer Wear

Add new Part B reading:

B. Highly Visible Headgear

During the first year of employment, TE&Y employees must wear orange headgear. Headgear is not required when in:

- Office areas and lunch rooms.
- Enclosed vehicles (including locomotives).
- Parking lots when tracks will not be fouled.
- Areas specifically designated by the department head.

73.2 - Handling Explosives

Change 3rd bullet to read:

- Allow anyone to carry matches, lighters or other flame-producing devices except the person lighting the fuse.

Rule : 74.2 Driver Requirements

Add new Part C reading:

C. Employees must not tamper with any recording or monitoring device.

74.3 Cell Phone and Electronic Device Use

Change Rule To Read :

Use of cell phones while operating a motor vehicle is permitted when:

- A hands free device is used and voice activated dialing or speed dialing is used.
or
- Stopped on other than a roadway.

The driver may instruct passengers to turn off electronic devices to eliminate distractions while the vehicle is moving.

The use of electronic devices for anything other than voice communication is prohibited while operating a motor vehicle.

Do not use a cell phone or electronic device while fueling a vehicle.

74.6 - Back-Up Moves

Change Rule to read:

On Union Pacific property, work must be planned to minimize back-up moves and to avoid driving into areas requiring back-up moves. No back-up move is allowed when a forward move can safely be made.

Employee(s) in the cab of a vehicle must not speak to or distract the driver until the back-up move is completed, except in case of emergency.

Unless vehicle is equipped with an operative rear vision camera, before initiating a back-up move driver must:

- Walk around the vehicle and confirm that it is safe to move.
- Look in the direction of movement.
- Sound horn prior to back up move if back up alarm is inoperative or unavailable.
- Not exceed 5 MPH; conditions may require a lower speed.

When rearward vision is impaired, when equipment is standing on one or more tracks adjacent to the road, or in a Union Pacific parking lot, the following applies unless vehicle is equipped with an operative rear vision camera:

- When a second person is available:
 - A job briefing must be performed prior to movement, addressing the direction of move and position of person protecting the move.
 - The second individual, when safe to do so, must be near the rear of the vehicle to direct the movement.
 - Driver must immediately stop if the person who is directing the movement disappears from the driver's view.
- When a second person is not available:
 - The driver must stop every 150 feet. After stopping, the driver must secure the vehicle and walk around the vehicle to confirm that nothing has entered the path of the rearward movement of vehicle.
 - This will be repeated consecutively every 150 feet or until back-up move is no longer required.

74.6.1 - Back-up Moves by Engineering Employees and Contractors in Vehicles

Change Rule title and entire rule to read:

Back-up Moves by Engineering Employees and Contractors in Vehicles

Work must be planned to minimize back-up moves and to avoid driving into areas requiring back-up moves. No back-up move is allowed when a forward move can safely be made.

Employee(s) in the cab of a vehicle must not distract the driver with unnecessary conversation or other distractions until the back-up move is completed.

Before initiating a back-up move, the driver must walk to the rear of the vehicle to confirm that it is safe to move unless a second person is directing the move as described in 2(A) below.

In addition, each driver must comply with the following:

1. Sound horn frequently if back up alarm is inoperative or unavailable.
2. When safe to do so, proceed not exceeding 5 MPH and complying with either (A) or (B) below.

(A) When a second person is available to direct the back-up move (i.e any other employees or contractors in the vehicle or present in the immediate vicinity):

- A job briefing must be performed prior to movement, addressing the direction of move and position of person protecting the move.
- The person directing the move (spotter) must be in a position to be seen by the driver and must be able to see the rear of the vehicle and the intended path.
- The spotter must not walk backwards or turn his/her back to the back-up move. Instead, the spotter must bring the vehicle back to a pre-determined point and stop the move. The spotter may then reposition himself before resuming the back-up move.
- Driver must immediately stop if the person who is directing the movement disappears from the driver's view.

(B) When a second person is not available:

- The driver must stop every 150 feet. After stopping, the driver must secure the vehicle against movement, walk to the rear of the vehicle and visually confirm that the way is clear.

There are three exceptions to requirement 2 (A or B) above:

1. The vehicle is equipped with an operative rear vision camera that provides sufficient visibility.
2. Short turn-around move or backing into a parking spot that requires a back-up move of 30 feet or less if there are no other persons on the ground within 150 feet and the vehicle has pulled by the area to ensure a safe move can be made.
3. Delivery of materials or equipment to a work site if there are no persons on the ground within 150 feet of the intended path and there is no equipment standing on an adjacent track

74.6.3 Back-Up Moves by Off-Track Equipment

Add new rule:

Off-track equipment (bulldozer, backhoe, etc.) working on Union Pacific Railroad property must be equipped with an operative back-up alarm.

Rule 74.14: Deleted the Rule.

78.7 - Employees Working Near Power Lines

Change Title and deleted SRM reference- remainder of rule unchanged.

Rule : 78.8 Operating Booms Near Power Lines

Change Entire Rule To Read :

<p>78.8</p> <p><i>Ref. 29 CFR 1926.1408</i></p>	<p>Operating Booms Near Power Lines</p> <p>Do not operate booms over power lines at any time. Do not operate booms under power lines unless proper clearance is maintained.</p> <p>At stationary worksites, crane operators must place at least three (3) orange cones evenly spaced along the minimum clearance line to mark the minimum safe working distance to overhead power lines.</p> <p>A. Operation Near Energized Lines</p>
--	---

A. If booms must be operated near energized lines, maintain the minimum clearances listed in the table listed below.

MINIMUM CLEARANCE DISTANCES

Voltage (nominal, kV, alternating current)	Minimum clearance distance (feet)
up to 50	10
over 50 to 200	15
over 200 to 350	20
over 350 to 500	25
over 500 to 750	35
over 750 to 1,000	45
over 1,000	(as established by the utility owner/operator or registered professional engineer who is a qualified person with respect to electrical power transmission and distribution).

Note: The value that follows "to" is up to and includes that value. For example, over 50 to 200 means up to and including 200kV

A groundman must be designated to observe equipment clearance and give timely warning for all operations when it is difficult for the operator to observe clearance.

B. In Transit

B. When in transit with no load and boom lowered, use the table below.

MINIMUM CLEARANCE DISTANCES WHILE TRAVELING WITH NO LOAD

Voltage (nominal, kV, alternating current)	While traveling—minimum clearance distance (feet)
up to 0.75	4
over .75 to 50	6
50 to 345	10
over 345 to 750	16
over 750 to 1,000	20
over 1,000	(as established by the utility owner/operator or registered professional engineer who is a qualified person with respect to electrical power

	<p>(transmission and distribution).</p> <p>If proper clearance cannot be maintained, shut off the power and ground power lines before performing work per Rule 78.9.</p>
--	---

79.2.3 - Proper Clothing

Change 3rd paragraph to read:

For overhead welding and other applications where clothing or body may be exposed to sparks or slag, wear a full leather welding jacket and additional approved leather protective outerwear such as:

- Spats or sleeves.
- Aprons.
- Leggings.

Add last sentence:

Kevlar jacket or Kevlar jacket with leather sleeves are not intended for overhead welding.

79.5 - Welding, Cutting or Heating on Tank Cars

Change last sentence to read:

These instructions apply to tank cars that are within 50 feet of welding or torch burning repairs being performed on other equipment.

79.7 - Torch Test

Add new 5th bullet reading

- When new torch equipment is installed.

Rule : 80.6 Working at Night or Low Light Level

Change Rule To Read :

<p>80.6</p>	<p>Working at Night or Low Light Level</p> <p>Employees must carry a light, or use additional lighting, when working at night or in reduced lighting.</p> <p>Exercise care to avoid hazards caused by shadows resulting from the use of lights.</p> <p>Specific lighting requirements for:</p>
--------------------	---

	<ul style="list-style-type: none"> • Remote Control Operator - Hands free light. (Lantern may be used if hands free light fails or as an auxiliary light). • Trainmen – Lantern • Engineers - Lantern, flashlight, and/or hands free light. <p>Trainmen may use a hands free light in addition to a lantern.</p>
--	---

81.2.1 - Walking Near or Crossing Track

Change Fifth Paragraph To Read:

Stop before fouling or crossing track(s) and:

- Look in both directions.
- Ensure no movement is closely approaching.
- Look for conditions that could interfere with footing.

81.5.4 - Understanding Between Crew Members Before Crossing Through or Fouling Equipment

Under that part reading:

Performing Work in Red Zones in a Yard:

Delete step 2 and change step 3 to step 2.

81.6 - Coupler and End Sill

Change first sentence to read:

Do not:

- Place any part of the body on or between coupler and car end sill.
- Reach over drawbars to open or close angle cocks.

81.7 - Riding Equipment

3. How to Ride

Change 3rd sub-bullet under 3rd bullet to read:

- May ride on the end platform of ARMN, JR SX, or similar cars equipped with an end platform and hand rails. The platform is located on the "A" end of the car.

Riding Tank Cars

Change 2nd bullet under:

- When shoving:

To read:

- Be positioned to ride behind the safety bar outside the gage of the track. On cars equipped with two vertical handholds or if unable to ride behind the safety bar, employee may ride on the outer portion of the crossover platform facing direction of movement, positioned outside the gauge of the track.

81.11 - Hand Brake

Change 7th bullet under, "While operating hand brakes employees must not:" to read:

- Use unapproved material or device to apply or release brake

81.11.3 - Brake Sticks

Change rule to read:

<p>81.11.3</p> <p><i>Ref. Rule(s)</i> 81.5.4</p>	<p>Brake Sticks</p> <p>When practical and available, use approved brake sticks to operate:</p> <ul style="list-style-type: none"> • Hand brake wheels. • Knuckles. • Angle cocks located on the side nearest where you are standing. <p>Precautions when using brake sticks:</p> <ul style="list-style-type: none"> • Car must be stopped. • Work from the field side rather than between adjacent tracks when possible. • Brake sticks less than 5 feet in length may not be used to reach across drawbar to operate hand brake wheel. • The handle can easily foul an adjacent track, so be alert to keep clear of moving equipment. <p>Do not:</p> <ul style="list-style-type: none"> • Place the butt of the brake stick against your body. • Climb or cross equipment with the brake stick in your hand. • Use brake stick while in or on a vehicle. • Operate the hand brake quick release with a brake stick. <p>Local instructions may be issued regarding use of brake sticks.</p>
---	---

81.13 - Coupling and Uncoupling Equipment

Change First Paragraph and Related Bullets To Read:

Local instruction may be issued requiring:

- Movement to stop before coupling is made.
- Employees riding locomotives to dismount prior to coupling.

83.1.2 - Walkways

Change rule to read:

Use only designated pathways for walking. Keep eyes on path and remain alert for obstructions and walking conditions including moving vehicles and equipment.

83.1.7 - Security Bolts and Seals

Change rule title and first sentence to read:

Security Bolts and Seals

Employees are prohibited from applying or removing security bolts and seals from trailer or container doors.

83.1.9 - Intermodal Equipment Maintenance and Repair Lockout / Tagout Procedures

Add New Rule:

In order to properly lock out and tag out equipment on UPRR intermodal ramps and service areas, prior to performing service, maintenance, adjustments or repair of any energized type of equipment, the following steps must be taken:

1. Apply the parking brake if equipped and test the brake to ensure that it will hold.
2. Shut the equipment down and remove the key from the ignition switch.
3. Release all stored energy in hydraulic, pneumatic, electric, mechanical, chemical, thermal and any other sources of energy present in equipment.
4. Block at least one of the equipment's wheels on both sides to prevent unwanted movement.
5. Ensure that no movement will take place if controls are moved, whether intentionally or unintentionally. All lockable or brace-able components must be locked or braced to prevent any movement of equipment.
6. Place a "do not operate / out of service" sign facing inward at the driver's controls, attached to the steering wheel or blocking door entry way to ensure that anyone approaching the equipment controls will see the sign.
7. Place reflective safety cones that are at least 36" in height in the front center and rear center of equipment when it is practical and safe to do so.
8. Disconnect the battery using the battery disconnect switch and lock if the battery is equipped. If there is no disconnect switch, disconnect the battery cables from the battery and place a lock in the ring on the battery cable with a tag indicating "out of service" so the battery cannot be reconnected without removing the lock. In cases where the battery cable is disconnected, the cable must be placed in a position to ensure that it will not accidentally come into contact with the battery terminal.
9. Follow all manufacturer procedures to ensure that the equipment is safe for performing maintenance or service.
10. Test the integrity of the tagout. If the equipment cannot be started and the components cannot be energized, you may safely start the maintenance or service.
11. Only the employee who tagged the equipment out of service or that individual's supervisor, may remove the lock out- tag out locks and tags and restore equipment to service.

83.2.1 Speed Limits on Ramp

Change rule to read:

Maximum speed on intermodal ramps is 20 MPH.

83.2.2 Observing Stop Signs

Change rule to read:

All vehicle operators must come to a complete stop prior to passing a stop sign or painted stop bar location.

83.2.3 Vehicle Lights

Change rule to read:

All vehicles and equipment operating on ramps will have headlights/running lights on dim and four-way flashers on while operating.

All equipment and vehicles assigned to ramp operations must display illuminated amber strobe lights.

83.3.1 - Precautions Near Equipment

Change rule to read:

All personnel on the ground must remain alert and attentive to equipment movement and expect movement at any time. Employees on the ground must maintain a safe distance from tractors, trailers, or any other equipment standing or moving.

83.3.3 Working Around Lift Equipment - Groundmen

Change first sentence to read:

All personnel must stay clear of crane or packer lifting arms at all times.

Change last paragraph to read:

When working with cranes or packers, the groundmen and all personnel in the vicinity must:

- Be positioned where they cannot be caught between the load being handled and an obstruction.
- Stay clear of suspended loads.
- Not be under the crane boom or similar machine when it is lifting or suspending a container, trailer or chassis.
- Not stand near or in line with a cable, rope or chain under tension or one that might be tightened at any moment.
- Not operate equipment under crane area unless authorized to do so by crane operator.

83.3.5 Getting On and Off Intermodal Cars

Add reference rule:

Ref. Rule

81.4.1

Add as last bullet:

- Three-point contact is maintained.

[^Top](#)

Item 10-F: Instructions for Inspecting, Welding and Grinding of Rail and Track Components Chapters 100 to 119

[^Top](#)

Item 10-G: Chief Engineer Instruction Bulletins, Chapters 120 to 140

[^Top](#)

Item 10-H.: Hazardous Materials Instructions

Instructions for Handling Hazardous Materials

Form 8620

3. Operating Key Trains

Change Section VII Train Operations Part 3 "Operating Key Trains" as follows:

a. Definition:

Change first sentence to read:

A "Key Train" is any train that meets one or more of the following conditions:

Add new (5) reading:

(5) A "Key Train - Crude Oil" is a train with 20 or more loads of Petroleum Crude Oil with an identification Number of UN1267.

Add new (6) reading:

(6) A "Key Train – High Hazard Flammable Train" is a train with 20 or more loaded tank cars of a Class 3 Flammable Liquid in a continuous block, or containing 35 or more loaded tank cars of a Class 3 Flammable Liquid across the entire train; and at least one of these cars is a DOT-111 tank car.

b. Identifying Key Trains

Change item (1) to read:

(1) A computer-generated Train List will identify Key Train / Key Train - Crude Oil / Key Train - High Hazard Flammable Train status in the header block on the first page.

c. Instructions for Operating Key Trains

Change item (1) to read:

(1) The maximum authorized speed for Key Trains is 50 MPH, unless further restricted. The maximum authorized speed for a Key Train - Crude Oil / Key Train – High Hazard Flammable Train is 40 MPH within a High Threat Urban Area. (Refer to SI-03 in Area Timetable or Subdivision General Order for HTUA restrictions.)

Note: Where lower speed restrictions are in effect, or when the Key Train is restricted to a lower speed for other reasons, the lower speed governs.

Rule : APPENDIX Appendix

Change the expiration date of Special Permit DOT-SP 9271 to read:

SPECIAL PERMIT AUTHORIZATION

DOT-SP 9271

EXPIRATION DATE: In effect until further notice.

Glossary

Change High Threat Urban Area To Read :

High Threat Urban Area (HTUA) – An area comprising one or more cities and surrounding areas including a 10-mile buffer zone identified by the Department of Homeland Security's Transportation Security Administration (TSA) in 49 CFR 1580, Appendix A. HTUAs will be identified on work orders and train lists as necessary. (See list)

HTUAs include the metropolitan area of the following cities:

Northern Region: Chicago, Denver, Kansas City, Milwaukee, Omaha, St. Louis, Twin Cities.

Southern Region: Baton Rouge, Dallas, Houston, Memphis, New Orleans, Oklahoma City, San Antonio.

Western Region: Anaheim/Santa Ana, San Francisco Bay Area, Las Vegas, Los Angeles/Long Beach, Phoenix, Portland, Sacramento Area, Seattle.

[^Top](#)

Item 10-I: Union Pacific Railroad Policies

Links to view Union Pacific Policies:

"Employees are expected to work safely, honestly, and to treat others with respect. Employees are expected to be familiar with and comply with Company policy including those listed below. Employees who are unsure of the application of any Company policy to their work, must ask their supervisor for an explanation."

Statement of Policy on Ethics and Business Conduct:

<http://home.www.uprr.com/emp/exec/conduct/index.shtml>

Drugs and Alcohol Policy:

http://home.www.uprr.com/emp/operating/op_prac/dap/index.shtml

Blood-Borne Pathogens Policy:

http://home.www.uprr.com/emp/operating/she/policy/iv-reggs/k_pathogens.shtml

Smoking Policy:

<http://home.www.uprr.com/emp/ec/policy/smoking.shtml>

Medical Rules:

http://home.www.uprr.com/emp/ec/health/medical_rules/index.shtml

Policy to Address Violence & Abusive Behavior in the Work Place:

<http://home.www.uprr.com/emp/ec/policy/violence.shtml>

Equal Employment Opportunity/Affirmative Action and Related Policy Directives

http://home.www.uprr.com/emp/ec/policy/eoo_uprr.shtml

Information Security Policy:

http://home.www.uprr.com/emp/exec/conduct/information_security.shtml

Workplace Recordings Policy:

http://home.www.uprr.com/emp/law/policy/workplace_recordings.shtml

Engineering Fire Prevention Policy

http://home.www.uprr.com/emp/operating/she/policy/attachments/iv-regs/ah_fire_prevent/ah_eng_fire_plan.pdf

Mechanical Fire Prevention Policy

http://home.www.uprr.com/emp/operating/she/policy/attachments/iv-regs/ah_fire_prevent/ah_mech_fire_plan.pdf

Transportation Fire Prevention Policy

http://home.www.uprr.com/emp/operating/she/policy/attachments/iv-regs/ah_fire_prevent/ah_transp_fire_plan.pdf

Rule Updated Date

May 2, 2016

[^Top](#)

Item 10-J: Commuter Train Operations

Geneva, Kenosha, Harvard and McHenry Subdivisions.

I. Commuter Operations Documents and Requirements

All employees affected must have a copy of the current Commuter Operations Train Schedules. Freight trains and engines must attempt to clear the time of scheduled passenger trains to avoid delay. Employees in passenger train service, including engineers, must have a copy of the current METRA Operations Profile.

II. Instructions Governing Movements Between the Ogilvie Transportation Center (OTC) and Halsted and Erie

1. Ogilvie Transportation Center (OTC)

- a. All movements into the OTC must be controlled so stop will be made by service application of the brakes and short of the white line painted on platforms 10 feet in advance of bumping posts.
- b. When movement is made over Lake Street Interlocking, when practicable, movement must be controlled by the engineer from the lead unit or cab car in the direction of movement.
- c. Rule 7.9 Switching Passenger or Occupied Outfit Cars: When couplings are made within the OTC, stop not less than 20 feet from the cars. Then complete coupling on signal from employee on the ground.

2. Lake Street Interlocking:

- a. Engineer on scheduled passenger train will contact Lake Street operator via radio when the coach doors have been closed, door light is displayed in the operating control compartment, and the train is ready to depart. In the event of a door light failure, the engineer must communicate with the conductor to ascertain that all doors are closed before contacting Lake Street.
- b. The first signal governing movements from each of the train shed tracks is identified by two white stars located directly above the signal light. In addition, these signals are equipped with a single white star which is in view when looking back at the signal (train or engine beyond the signal). When the indication displayed by the first signal cannot be observed due to train or engine extending beyond this signal, engineer or trainman will be governed by the single white star. When the single white star is illuminated:
 1. The signal displays a proceed indication.
 2. The route is lined to the next signal.
- c. Movement from the mail or fuel pockets must not be made without a proceed indication and permission from Lake Street control operator.
- d. Locomotives exceeding four axles must utilize crossovers west of Lake Street Tower to enter the OTC authorized tracks as specified for business cars.

3. Movements between Halsted or Erie and OTC.

- a. Engine bell must be rung continuously.
- b. Headlight must be dim.
- c. Ditch lights and oscillating headlight must be off.

4. Running Brake Test

All trains and yard movements entering the OTC will make a running air brake test approaching Halsted or Erie to know that the brakes on the train are functioning properly. Trainmen handling back-up movements

into the OTC will make a running brake test through use of the valve on back-up hose or its equivalent, approaching Halsted or Erie, to know that the brakes are functioning properly. All trains and yard movements departing OTC will make a running brake test to know that the brakes on the train are functioning properly.

5. **Cars Exceeding 16 Feet**

Cars exceeding a height 16'0" above top of rail must not be operated on any track in the OTC.

III. Additional Rules and Instructions

Passenger Train: A train made up of equipment designed to transport passengers.

Letter S: The letter S in the schedule column in Commuter Operations Train Schedules indicates a regular stop.

Canceling Regular Stops: When a passenger train is directed to cancel regular stops and will pass through stations where people may be crossing from one platform to another, train will not exceed 30 MPH and must whistle frequently approaching and passing these stations.

Operating on Other Than Normal Tracks: When movements are made on tracks other than those normally used, the engineer must notify commuter control sufficiently in advance to permit passengers to change platforms. The train must enter the station at a speed to allow all passengers to cross over before blocking crosswalk.

Operation of Doors and Handling of Passengers at Station Platforms:

The Conductor will designate one member from the train crew who will operate the doors at each station.

Exterior doors must not be opened until the train has come to a full stop at a station platform. Trainmen must position themselves evenly spaced (when possible) on the platform to ascertain that all doors have opened for those passengers entraining/detraining and to provide assistance. Conductors, Assistant Conductors, and Collectors are required to be on all station platforms at every stop except if the car they are working is not on the platform.

Trainmen assigned to work the ADA car should maximize their presence in that car and must be aware of the passengers special needs. Special attention should also be given to coaches carrying the elderly and families with small children.

When two or more cars are open, trainmen must not work from the same car, EXCEPT as required in the performance of duty.

Doors located at other than a platform or other suitable surface such as street crossing will not be used. Announcements must be made in advance, directing passengers to doors that can be opened properly. Precautions must be taken to see that doors improperly spotted remain closed. If an unusual stop is made at a station which results in car doors not being spotted at a platform, the engineer will sound one long signal or the override circuit or make a PA announcement. The trainmen responsible for the doors must consider this an emergency signal and only open the doors which are properly spotted.

Trains are not to depart stations until the following has occurred:

- Trainman responsible for working the doors receives visual signals from all other train crew members that the train is ready to depart.

- Trainman will then close all doors except his own.
- Trainmen will then make a final check of all doors in both directions from the best possible vantage point to ensure all doors except his own are closed.
- Once it is verified that all other doors are closed except his own, the trainman will then close his door.
- After the door light indication is illuminated in the engineers compartment signifying that all doors are closed, the train can depart the station. When conditions permit, the engineer should observe the platform area, utilizing his rear view mirror or camera monitor, looking for any unsafe conditions as the train begins to depart the station.
 - o If, after the door closed light has illuminated and:
 - train begins to pull away from the station, the engineer notices that the door closed light has gone out; a normal brake application will be made to bring the train to a stop. Trainmen will then ascertain the cause of the open door indication and correct the problem, if possible, before resuming operation.
 - train is operating at speed and the engineer notices that the door closed light has gone out; the engineer will communicate with the train crew and ascertain the cause of the open door indication.

If there is a failure of the door light indication in the engineers compartment, the train may proceed under the authorization of the Conductor, only after a full understanding on an alternative method for assuring the doors are closed has been reached by all crew members through a supplemental job briefing. Please note, system failures must be reported on the Passenger Car Inspection Report.

At stations where track curvature or other circumstances restrict sight distances making it impossible for the trainman responsible for door operation to observe all cars in the train while making the final check the following should occur prior to the train departing the station:

- All trainmen will bleed off the door of the car they are operating from.
- All trainmen will position themselves on the platform along the length of the train in such a way that all cars can be observed.
- All doors will be closed except those doors where a trainman is positioned.
- After each trainman makes a final check of the cars under their observation, all crew members will exchange a second hand signal prior to boarding and closing their own doors.
- After the door light indication is illuminated in the engineers compartment signifying that all doors are closed, the train can depart the station. When conditions permit, the engineer should observe the platform area, utilizing their rear view mirror or camera monitor, looking for any unsafe conditions as the train begins to depart the station.
 - o If, after the door closed light has illuminated and:
 - train begins to pull away from the station, the engineer notices that the door closed light has gone out; a normal brake application will be made to bring the train to a stop. Trainmen will then ascertain the cause of the open door indication and correct the problem, if possible, before resuming operation.
 - train is operating at speed and the engineer notices that the door closed light has gone out; the engineer will communicate with the train crew and ascertain the cause of the open door indication.

Door control panel on all cars must be deactivated in the closed (locked out) position except when needed for immediate use by a train crew member. Once all passengers have been loaded/unloaded the Control Panel must be locked prior to leaving the vestibule. Coach keys are to be removed after they are used and are not to be left in the lock at any time.

Approaching Stations: When approaching stations;

1. Engine bell must be rung one-fourth mile in advance of stations where passengers are received or discharged and must continue until engine has passed platform. In the event of bell failure, whistle must be sounded when approaching stations.
2. Headlight must be on bright and ditch lights and oscillating headlight on, except when approaching OTC.
3. A street or road crossing adjoining or immediately adjacent to the station platform will be considered a part of the platform or platform area.

Movements between M19A and the OTC:

Train and engine movements on the main track between M19A and the OTC must have a track warrant or determine no track bulletins are necessary by contacting Commuter Control, the Yardmaster at California Avenue Coach Yard or the M19A clerk. A copy of track bulletins in effect can be obtained at either Commuter Control or M19A.

California Avenue Coach Yard

Locomotives exceeding four axles are prohibited from operating within Cal Ave between Sacramento and Western Avenues, unless special permission is received from the Cal Ave Yardmaster or a Commuter Operations Manager

1.7 Altercations:

Application: Employees must not enter into altercations with each other, passengers and/or the general public.

1.47 Duties of Crew Members

Application:

Calling Attention to Restrictions:

Conductors of passenger trains must remind the engineer of permanent restrictions by use of the radio or intercom and receive acknowledgement between the following locations:

Geneva Sub:
MP 30.0 and MP 30.5.

Harvard Sub:
MP 7.7 and MP 7.8.
MP 50.4 and MP 52.0.

Kenosha Sub:
MP 11.8 and MP 12.0.

McHenry Sub:
MP 65.4 and MP 69.2.

If the radio and the intercom fail, the communication signal buzzer will be used by 2 sounds of the communication signal

buzzer. If communication is made by use of the buzzer, the engineer will sound whistle signal 5.8.2(4) as acknowledgment. Conductors failing to hear the whistle signal acknowledgment must re-establish communication with the engineer to obtain acknowledgment or take the necessary actions to stop the train prior to reaching the restriction.

2.7 Monitoring Radio Transmissions:

The conductor and the trainman assigned to operate the doors must carry a company radio and have it turned on to the proper frequency while on a train or performing duties related to train movement.

All other trainmen must carry a company radio and have it turned on to the proper frequency while performing duties related to train movement off a train other than loading or unloading passengers at station platforms.

The engineer is designated as the primary radio operator unless a different procedure is determined through a job briefing.

The conductor may instruct other crew members to carry and use radios as conditions require.

2.21 Electronic Devices

Application for Commuter Operations:

The use of cell phones is prohibited and must be turned off when in engine or the control cab of moving trains. This includes Company issued cell phones unless all other forms of communications have failed. Conductors with company issued cell phones, not in the control compartment, may have cell phones on for required communications between crew members and/or commuter control.

If all other forms of communication fail, the Company issued cell may be used for communications. Cell phone communication with the engineer is limited to that required by the rules.

The train dispatcher or commuter control may authorize the use of a cellular phone in the control cab by someone other than a locomotive engineer operating the controls of a moving train, during mechanical breakdowns or other service interruptions, after a safety briefing, provided that all involved personnel agree that it is safe to do so. Any other use is prohibited in the cab.

This does not prevent the use of cell phones during emergencies.

Personal cell phones must be turned off when performing train or engine service.

6.11 Mandatory Directive

Application:

... **"retained for the duration of that crew's tour of duty"**. Conductor and Engineer will retain a copy of mandatory directives from all trips during an entire day's tour of duty including trips before and after any "release periods" during a day.

Application:

When a mandatory directive is issued to commuter trains, the conductor and engineer must each have a copy of the directive. The engineer may give the information to the conductor at first opportunity. It will not be necessary to discuss this information with other crew members before being acted upon. If an engineer receives such information just prior to a location where the directive takes effect, the engineer must comply with the information even if the conductor has not yet received the information.

6.25 Movement Against Current of Traffic

Add:

When authorized to move against the Current of Traffic:

1. A crew member must be positioned in controlling cab. This crew member must enter cab prior to departing last scheduled station stop before beginning movement against current of traffic and remain in operating cab until arrival at first scheduled station stop after completing movement against current of traffic.
2. When exiting an against current of traffic movement at non signaled hand throw crossover switch, be governed as follows:
 - Verbal authorization must be received from the employee in charge of crossover switches at that location or the train dispatcher, before returning to operate with the current of traffic.
 - Train must stop short of the first crossover switch at the exit location before returning to operate with the current of traffic.

6.30 Receiving or Discharging Passengers

Application:

1. Passenger trains must not enter a station at which another passenger train is stopped to receive or discharge passengers until first bringing train to a stop, after which they may proceed with caution to or through the platform, ringing bell and sounding whistle. When a train is "laying back" to delay entering a station, the train laying back must not enter that station until the departing train has cleared the platform area and the platform area can be plainly seen.
2. When two passenger trains are nearing a station at the same time and only one of them is scheduled to stop, the train to stop must not enter the station until the other train has cleared the platform area and the platform area can be plainly seen.
3. When two passenger trains are nearing a station at the same time and both are scheduled to stop, both trains may enter simultaneously. They must enter the station with caution ringing the bell and sounding the whistle when necessary. Eastward and Southward trains have preference in the AM and Westward and Northward trains in the PM.
4. Freight trains must make every effort consistent with safety and efficient train handling:
 - a. To avoid passing a station at which a passenger train is stopped to receive or discharge passengers.
 - b. To avoid entering the platform area until the passenger train has departed and the platform area can be plainly seen.
 - c. To control their speed to avoid entering a station during the time an on-time passenger train would normally be receiving and discharging passengers.
 - d. To communicate with passenger trains that may be met or passed to determine their locations.

Freight trains and engines **MUST** attempt to communicate by radio with scheduled passenger trains that may be met or passed prior to the scheduled time at stations, to determine the location of the passenger train and plan location of meet or pass. Also, attempt to contact the train dispatcher to determine location if unable to contact passenger train by radio.

When a freight train cannot avoid passing a station after a passenger train has entered, the whistle must be sounded until the front of the freight train has passed through the platform area. Freight trains that enter a station under these conditions (except under part 6 below) must notify Commuter Control by radio and advise circumstances.

If a freight train stops or becomes disabled at station platforms at or near scheduled times of passenger trains, the engineer will, when possible, contact commuter control **BEFORE** the train is moved so that a public address announcement can be made to inform the public to stand clear. Required whistle signals must be sounded **BEFORE** any movement is made.

5. If it becomes necessary to operate a lift when operating on Track 2 between CP Y029 and CP Y015 or between CP Y043 and CP Y044 the following applies:

- a. The train dispatcher must be notified that operation of the lift will be necessary at (Station). This must be done as far in advance as possible to avoid unnecessary delay.
- b. Request must be made to stop all trains on Track No. ___ (the adjacent track to the side that the lift will be deployed).
- c. If advised that the control signals to protect the limits display Stop, but a train/s is in the area, the lift cannot be deployed until there is an understanding with the engineer that the train/s has cleared the station or will not enter the station area until notified it is safe to do so.
- d. When advised the control signals to protect the limits display Stop and no trains are approaching on the adjacent track, the lift can be deployed.
- e. The train dispatcher must be advised when the lift has been stowed and trains may operate through the station area.

6. The engineers of trains involved in the above will communicate by radio with other trains to plan the movements.

7.4 Precautions for Coupling or Moving Cars or Engines

Add:

When coupling a locomotive to a passenger car or another locomotive, the slack must be stretched twice to insure that the coupling has been made.

8.2 Position of Switches

Application:

Crews handling passenger equipment from a coach yard or parking track must inspect hand operated switches and spring switches under the standing train to ascertain that they are properly lined and latched. This inspection must be made regardless of the indication on switch stand.

9.9 Train Delayed Within a Block

Application:

A Chicago Commuter passenger train is not considered delayed within a block after making a scheduled stop of less than five minutes with no other delay.

12.1.1/17.2 ATS and ATC Keys

Application:

When operating in ATC/ATS territory, the ATC and ATS Operating key must be kept in the conductor's possession at all times, except when a failure of the device makes it necessary to cut out the ATC or ATS or when the train is operating without ATC or ATS cut-in under proper authority. The following procedure must be followed:

- At turnaround and tie up point, the conductor is to deliver the key to the engineer, who must immediately cut out the ATC-ATS device, leaving the key in the actuator.
- When changing ends on commuter trains in ATS territory, leave the cab signal circuit breaker turned on.
- Conductors of all trains terminating in the Chicago Passenger Terminal must not surrender the ATC key to the engineer until the train has passed Halsted (CPY901) and the ATS key must be surrendered to the engineer until the train passed Erie (CPN001). Engineers failing to receive their key at the designated point of surrender must, as promptly as practicable, report this fact to Commuter Control or other proper authority so immediate action can be taken to retrieve the key.

12.2/17.7 ATS or ATC Failure/Cut-out Enroute

Add for Passenger Trains:

ATC or ATS Failure/Cut-out Enroute

In the event of an ATC or an ATS failure:

1. A crew member will be positioned in the controlling cab as soon as practicable.
2. If the train stops or the speed is reduced to below 10 MPH when operating in a block immediately preceding an interlocking, control point or junction, the train must proceed prepared to stop before passing the next signal. Speed must not exceed 40 MPH until the next signal can be clearly seen and that signal displays a proceed indication.

14.0 Track Warrants

When authorized by the train dispatcher, passenger trains may enter the main track at restricted speed, at the initial station, to load passengers before a track warrant is received.

Passenger trains, receiving a track warrant used for delivery of track bulletins only addressed to the wrong engine number, may depart the initial station before the train dispatcher verbally changes the engine number, if the address shows the correct train number and date. However, the train dispatcher must be advised at the earliest opportunity.

15.2 A. Verbal Permission:

Application:

In Commuter Operations Territory the bulletin number, line number, location and subdivision name will be used to begin communication.

The following applies:

When granting verbal permission, begin the communication using the following words:

"Foreman (name and/or Gang No.) ____ using track bulletin No. ____, Line No. ____, between MP ____ and MP ____ ,
____ Subdivision"

17.4 Departure Test Procedures

A. Energized Test Loop:

Cab Cars: When a cab car is on energized track, the cab signal should display Clear.

- Hold down the test button and a penalty brake application should occur within 8 seconds.
- Recover the air.
- After the brakes have released, hold down the test button a second time.
- When the horn sounds, acknowledge to prevent brake application.

B. De-energized Track:

In the Ogilvie Transportation Center, M19 A or Elburn, when the test was performed on de energized track as described above, after the brakes release, move over the test loop and acknowledge the horn when moving off of the test loop to prevent brake application.

32.1.1.1 Securing Locomotive Cab Doors

Application:

A. Unattended Locomotives

Commuter locomotives left unattended at outlying yards must be locked when mechanical department employees are not on duty. Secure commuter locomotives coupled to a coach as follows:

- Lock locomotive cab side doors and side windows from inside cab.
- Proceed into the engine room and lock the side door.
- Exit rear door and leave unlocked. Dismount locomotive through coach.
- Re-entry to locked locomotives must be done through the rear door of the locomotive.

Secure commuter locomotives not coupled to a coach as follows:

- Lock locomotive cab side doors and side windows from inside cab.
- Proceed into the engine room and lock the rear door.
- Exit engine room side door. Do not lock door.
- Re-entry to locked locomotives not coupled to a coach must be done through the engine room side door.

Employees must not attempt to lock/unlock locomotive side doors while standing on locomotive side ladders.

B. Attended Locomotives

Ensure cab doors are unlocked when locomotives are attended except when necessary to prevent unauthorized entry.

C. Cab Car Control Compartment Attended or Unattended

The control compartment doors on cab cars must be kept closed and locked at all times unless opened for immediate ingress/egress, maintenance or training purposes. Crews taking over equipment are responsible for ensuring that control compartment doors are closed and locked.

D. Keys

Locks on Commuter locomotives and coaches require a coach key. All crew members are required to have this key available while on duty. This key is available at Commuter Control.

71.2.2 Hearing Protection: Locomotives

Application:

Employees riding in the locomotive cab of F40PH engine must wear approved hearing protection whether the windows or doors are open or closed.

Employees riding in the controlling cab of a cab car must wear approved hearing protection when the windows are open.

71.5 Eye Protection

Application:

Train and engine employees must wear eye protection when in the controlling cab of a train or engine whether the windows or doors are open or closed.

71.6 Proper Attire

Application:

Trainmen in passenger train service must wear proper uniform.

71.6.1 Highly Visible Outerwear

Application:

ANSI Class II green/yellow outerwear is not required for engineer walking to or from their train on the platforms of the OTC.

Trainmen in uniform must wear supplied hats with high-visibility reflective stripes.

81.4.1 Standing Equipment

Application:

When exiting from a passenger car loading door on a station platform, employees may get off standing equipment while facing forward if it is safe to do so. Maintain a firm handhold until both feet are placed on the platform.

81.8.3 Impaired Clearances

Bridge Clearance:

Employees are prohibited from riding on the side of equipment when closely approaching or when on bridges in elevated track territory.

Item 13.8.2 Detector Failure - Action Table - Action No. 3

Application: A Chicago Commuter passenger train may proceed at normal speed making inspection of their train as time permits at station stops, and frequently inspecting their train while moving.

Rule Updated Date

May 2, 2016

[^Top](#)

Item 10-K: Main Track Switches

1. Before performing work that involves hand operating any main track switch, all crew members must complete a job briefing on work to be performed and switches to be operated. After work has been completed, the conductor and engineer must participate in a job briefing to ensure all main track switches operated have been restored to normal position before departing location.
2. In non signaled territory, except at locations where switches are operated with Radio Controlled Switches (RCS), conductors must record, as soon as practicable, the location and time each main track switch used is finally lined and locked to normal position. The conductor and engineer will initial each switch entry to acknowledge the completed job briefing concerning the switch being returned to normal position. If it is not practicable for an employee to personally initial the form due to logistics etc., an employee may make the appropriate entry for both crew members after the completed job briefing showing (e.g., "JM for MB").

a.

When a remote control operation is performing service in this territory, the entries will be made by the crew member handling the switch and initialed by the other crew member.

b. Entry is not required:

- Within Yard Limits or Restricted Limits.
- If the main track movement is made over the switch operated when departing location (e.g. following a head end setout or pickup).

Note: When a switch is operated by a crew member of another train or other employee after a train clears the main track (Rule 6.9 Meeting or Passing Precautions), entry must be made in both logs to acknowledge that the involved crews completed a job briefing and that main track switches operated have been restored to normal position and locked.

Example of Switch Documentation on "Conductor Report Form 20849."

Note: Example indicates Engineer as MB, Conductor JM and GF other employee.

EXAMPLES:

Location	Signal Name or TDD	Time	Comments & Other Delays
ESS Carlton		0835	Cleared MT ESS restored MB/JM
Carlton		0915	Met UP 4419 East
WSS Carlton		0950	Departed WSS restored MB/JM
ESS Gale		1245	Cleared MT ESS restored by GF. MB/JM for GF

3. Prior to release of track warrant authority or reporting clear of limits in non signaled territory, both the conductor and engineer must confirm, by job briefing, that all main track switches operated have been restored and locked in normal position, and that the conductor report form has all proper entries. The crew member communicating with the train dispatcher must report:

- All main track switches operated have been restored and locked in normal position.
- The crew has completed the job briefing.
- The conductor form is properly initialed.

When a hand operated switch is used to clear the main track, the train dispatcher must repeat the information and the employee must acknowledge.

4. When practical, a crew member will attempt to contact an approaching train to inform them that facing point hand operated switches are properly lined for their movement, and comply with the requirements of Rule 8.7.

5. Procedure PS

When instructed by the train dispatcher (either verbally or by track warrant) to comply with procedure PS at (location), approach switches prepared to stop and line switches to their normal position. Crew member or employee must advise the train dispatcher when it is known switches are lined in their normal position.

Rule Updated Date

May 2, 2016

[^Top](#)

Item 10-L: Additional Equipment Securement Requirements

A. Securement of Unattended Equipment

When securing a train or equipment:

- Perform a job briefing with all crew members on the securement procedure.
- UPRR crews must comply with UPRR ABTH securement requirements.
- Foreign line crews must comply with that railroad's securement requirements. When not practical to perform a release test to verify sufficient handbrakes have been applied, crew must use UPRR Securement Chart (included on next page) to determine the number of handbrakes necessary.
- Complete UPRR Train and Locomotive Securement Checklist and leave on the controlling locomotive if locomotives are attached.

B. Additional Key Train Securement Requirements

Key trains must not be left unattended on a main track or siding except when:

- Locomotive cab is properly secured or reverser is removed and secured. UPRR crews comply with ABTH Rule 32.2.1.1 (Securing Locomotive Cab Doors).

In addition, before a Key Train is left unattended on a main track or siding, the crew must provide securement information to the train dispatcher. Use the correct verbiage located in the UPRR Train and Locomotive Securement Checklist.

- Number of handbrakes applied.
- Tonnage and length.
- Type of equipment.
- Grade and curvature of track.
- Weather conditions.
- Type of securement procedure used (primary, secondary, or both).

All locomotive engineers must obtain a reverser at the on duty location if called to operate a Key Train.

C. Emergency Personnel

Promptly notify the train dispatcher when emergency personnel (firefighter, police, medic, etc.) are observed on, under, or between cars or locomotives that have been left unattended on main track or siding outside of a yard/terminal.

The train dispatcher will arrange for a qualified employee to attend the train or cars.

Following arrival of the qualified employee, the train or cars must not be left unattended until emergency personnel's duties no longer require them to be on, under, or between the equipment and a qualified employee inspects the train or cars for securement according to requirements and notifies the train dispatcher the inspection is complete.

D. Securement Chart

Securement Chart – When Not Practical to Verify Required Hand Brakes by Release of Air Brakes													
Number of Applied Hand Brakes Required													
Grade (%)													
Tons	<0.25	0.25-0.49	0.50-0.74	0.75-0.99	1.00-1.24	1.25-1.49	1.50-1.74	1.75-1.99	2.00-2.24	2.25-2.49	2.50-2.74	2.75-2.99	≥ 3.00
< 1,000	2	2	2	3	4	4	5	6	6	7	8	8	9
1,000-1,999	2	3	4	6	7	8	10	11	12	14	15	16	18
2,000-2,999	2	4	6	8	10	12	14	16	18	20	22	24	26
3,000-3,999	3	6	8	11	14	16	19	22	24	27	30	32	35
4,000-4,999	4	7	10	14	17	20	24	27	30	34	37	40	44
5,000-5,999	4	8	12	16	20	24	28	32	36	40	44	48	52
6,000-6,999	5	10	14	19	24	28	33	38	42	47	52	56	61
7,000-7,999	6	11	16	22	27	32	38	43	48	54	59	64	70
8,000-8,999	6	12	18	24	30	36	42	48	54	60	66	72	78
9,000-9,999	7	14	20	27	34	40	47	54	60	67	74	80	All
10,000-10,999	8	15	22	30	37	44	52	59	66	74	81	All	All
11,000-11,999	8	16	24	32	40	48	56	64	72	80	All	All	All
12,000-12,999	9	18	26	35	44	52	61	70	78	All	All	All	All
13,000-13,999	10	19	28	38	47	56	66	75	All	All	All	All	All
14,000-14,999	10	20	30	40	50	60	70	80	All	All	All	All	All
15,000-15,999	11	22	32	43	54	64	75	All	All	All	All	All	All
16,000-16,999	12	23	34	46	57	68	80	All	All	All	All	All	All
17,000-17,999	12	24	36	48	60	72	All	All	All	All	All	All	All
18,000-18,999	13	26	38	51	64	76	All	All	All	All	All	All	All
19,000-19,999	14	27	40	54	67	80	All	All	All	All	All	All	All
20,000-20,999	14	28	42	56	70	All	All	All	All	All	All	All	All
21,000-21,999	15	30	44	59	74	All	All	All	All	All	All	All	All
22,000-22,999	16	31	46	62	77	All	All	All	All	All	All	All	All
23,000-23,999	16	32	48	64	80	All	All	All	All	All	All	All	All
24,000-25,000	17	34	50	67	All	All	All	All	All	All	All	All	All

Rule Updated Date

May 2, 2016

[^Top](#)

Item 10-M: Mechanical Department (Maintenance Operations)

GCOR Chapters 1 - 17

The following instructions modify rules or clarify the application for the Mechanical Department.

5.3.6 Radio and Voice Communication

Employees may use radio and other means of voice communication to give information when using hand signals is not practical.

Employees must make sure crewmembers:

- Know which moves will be made by radio communication.
- Understand that while using the radio, the engineer will not accept any hand signals, unless they are Stop signals.

Mechanical Department Application

Locomotive Consists

Hand signals are to be used for all movements when handling locomotive consists or motive equipment without cars and when the operator is in clear view. Use the radio only when the operator is not in sight of the employee giving the signals or in case of emergency.

Car Movements

Car movements should be handled with hand signals unless the length of the cut, spotting procedures or other conditions require the use of radio.

All Movements

Employees must job brief before the movement and all employees involved in the movement must know which moves will be made by radio communication. While the radio is being used, the operator at the controls will not accept any hand signals, unless they are Stop signals.

5.13 Blue Signal Protection of Workmen

Section B How to Provide Protection /

Section C Blue Signal Readily Visible To Engineer.

Additional tasks in locomotive department requiring blue signal/flag protection include:

- Troubleshooting, obtaining downloads, load testing, power testing, wheel truing, drop pit units or the use of any test equipment directly attached to the locomotive.
- Inbounding and outbounding checks, testing and card tasks.
- Opening an electrical door or electrical panels and the vertical plane of the door or panel is broken with any part of the body.
- Inspecting trucks or other components under the main frame carbody and the vertical plane is broken with any part of the body.
- Fueling locomotives in mechanical department facilities.

Individual Tag

- Each locomotive department employee will affix a blue ID tag with their name and craft to the blue signals/flags. A separate red tag "working below" may be clipped to the blue ID tag to indicate who is working below.
- When work is completed, each employee will remove their blue tag(s) from the blue signal/flag. The last employee to remove their blue tag will check to be certain that no other employees are on, under, or between the equipment and then remove the blue signals/flags.
- Mechanical locomotive employees making repairs outside of a designated facility must apply a blue id tag to the isolation switch of the lead unit.
- When boarding equipment employees must visually check for a blue tag on the isolation switch of the controlling locomotive. If a blue tag is present, the controls (including the horn, bell, and electrical switches) must not be operated until the blue tag is removed or instructed to operate equipment by the person who placed the tag on the isolation switch.

Remote Control Locomotives (RCL)

Prior to placing blue signal/flag protection, ensure that the remote control function has been disabled.

- RCL (including RCL slug units) must have the remote control selector switch placed in the 'Manual Position'. When applicable, the remote control air brake isolation valve must be placed in "Manual Position".
- When outside of a designated facility all mechanical department employees making repairs to a remote control locomotive or rolling equipment attached to RCL and/or RCL slug units must apply a blue ID tag to the remote/manual selector switch.
- RCL may be placed in remote mode under blue flag protection to service equipment/functions only when all of the following requirements are met:
 1. Employee placing locomotive in remote mode has been trained to repair and operate RCL.
 2. Employees involved on the unit and/or track are job briefed and warned against possible inadvertent movement of locomotive.

Distributed Power Units On Other Than A Main Track

- When working on, under or between rolling equipment of a DPU train, the front and rear of the DPU train must be protected per Rule 5.13.
- When working on, under or between rolling equipment of a DPU train, a blue signal must be applied on the lead controlling locomotive.
- When working on, under or between rolling equipment of a DPU train, any controlling remote locomotive on the rear end of a train must have blue signal applied. If any controlling remote locomotive on the rear end of a train is not in the rear most position, the rear most locomotive must also have blue signal applied.
- When servicing or repairing locomotives in a DPU train, a blue signal with individual tag(s) must be applied on the lead controlling locomotive. Also, a blue signal must be applied to each controlling remote locomotive. If any controlling remote locomotive on the rear end of a train is not placed in the rear most position, the rear most locomotive must also have a blue signal applied.

Radio Linking

Blue signal protection is not required when radio linking unless required to work between the equipment.

Tasks Not Requiring Blue Signal Protection

The following list of tasks is all inclusive. If the task is not on this list then it requires blue signal protection:

- Supplying cabooses, engines, or passenger cars with items such as ice, drinking water, tools, sanitary supplies, stationery, or flagging equipment.
- Making visual observations while on or alongside a caboose, engine, or passenger car. Repositioning the activation switch or covering the photoelectric cell of the marker when the rear of the train is on the main track. The employee inspecting the marker must contact the employee controlling the engine to confirm that the train will remain secure against movement until the inspection is complete.
- Starting, shutting down and checking engine oil dipstick.
- If a blue signal is not available for employees performing emergency repairs on, under, or between an engine or rolling equipment coupled to an engine, the employee controlling the engine must be notified and appropriate measures taken to provide protection for the employees.

Blue Flag and Name Tag Placement

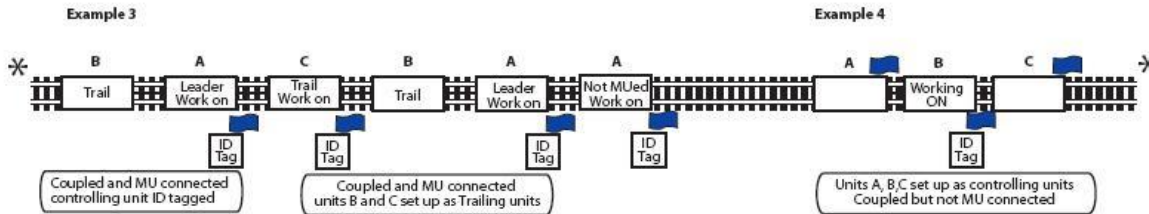
Minimum Blue Signal Requirements - System

READY TRACKS



* Entry to designated area flagged and switch locked (Mandatory)

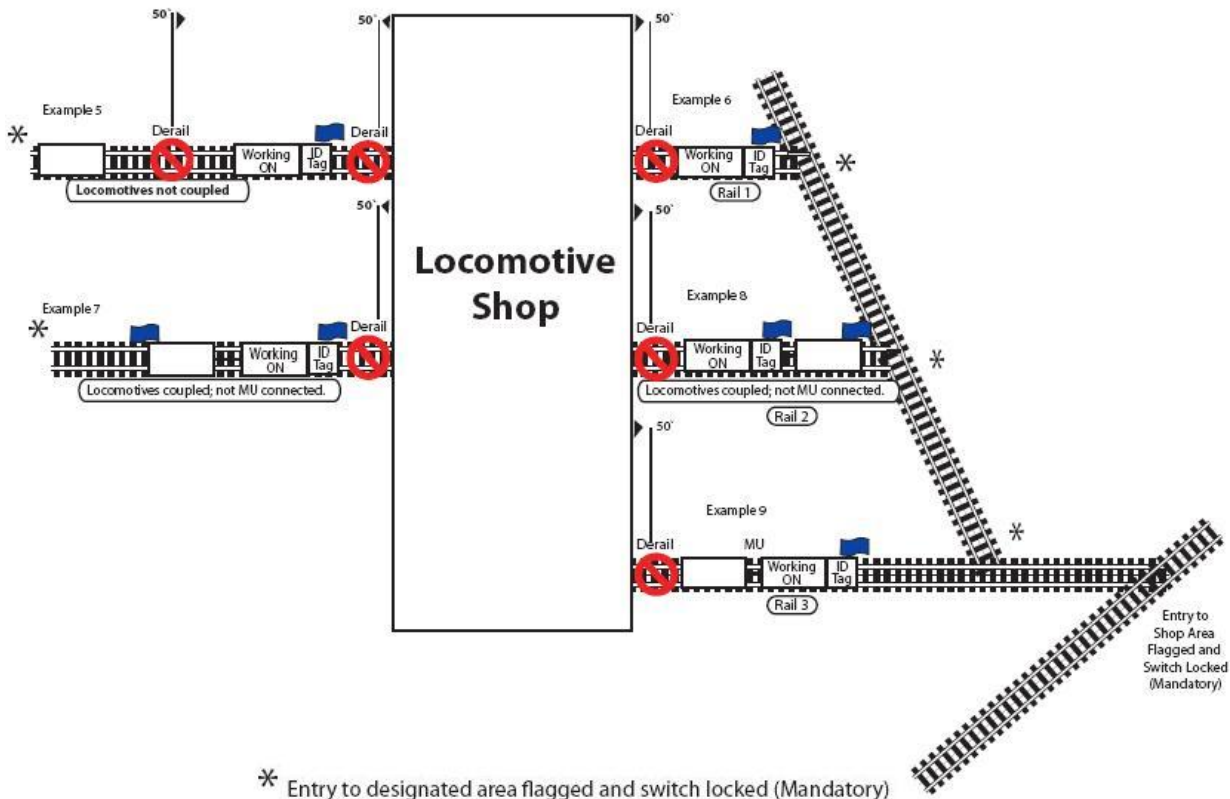
SERVICE TRACKS



Note 1-Each facility will designate the end (East, West, North and South) of track where name tag are placed.

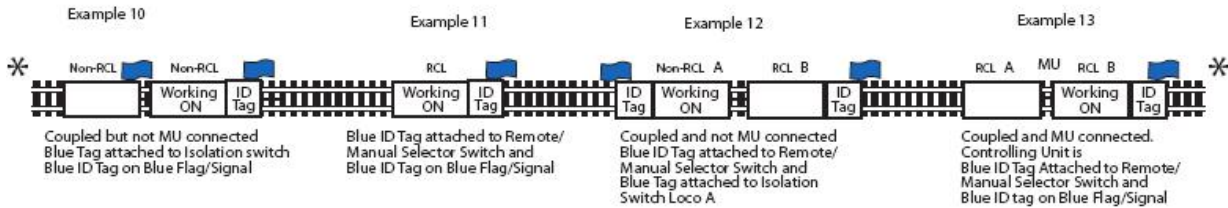
* Entry to designated area flagged and switch locked (Mandatory)

SHOP TRACKS



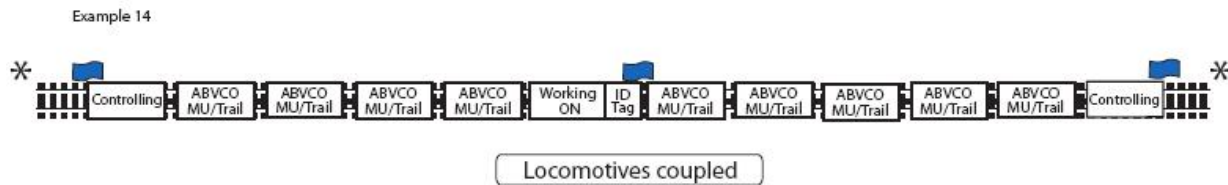
Minimum Blue Signal Requirements - System
Continued

OUTSIDE DESIGNATED MECHANICAL FACILITY



* Entry to designated area flagged and switch locked (Mandatory)

STORAGE TRACK



* Entry to designated area flagged and switch locked (Mandatory)

General Notes:

- 1- Must flag lead-controlling locomotive on MU connected and coupled consist.
- 2- ID tags can only be removed by individuals that placed them or their Supervisors. ID tags must be attached to blue flag or facility designated panel.
- 3- Remote Control Locomotives (RCL) must have the selector switches on the Receiver and Air Brake Panels placed in the "Manual Position".
- 4- RCL Slug units must be blue flagged with personal ID tags placed on the receiver panel and the blue flag
- 5- Shop access must be locked and lined away from shop if switches on shop tracks are not locked or equipped with derail.
- 6- All yard trucks will have a copy of Blue Flagging procedures for all associated yards in that shop's region.
- 7- Blue Signal Procedure for Outbound Consists on Ready Tracks.
 - a- All units in consist will be posted so that all involved know what units will be on what train.
 - b- All employees working consist will attached name tags to the blue flag on the outbound unit.
 - c- Starting in the lead unit cab and proceeding through all trailing units to setup air/electrical controls as trailing.
 - d- Starting at the rear of the consist make up all M.U. hose and electrical connections.
 - e- After consist is properly M.U'd the outbound work will proceed.
 - f- When work is completed each employee will remove their name tag. The last employee removing their tag will remove the blue flag and return to proper storage area.
- 8- If in doubt take the safe course and blue flag all locomotives coupled to the one that you will be working.

5.14 Signs Protecting Equipment

Application:

The loading and unloading of sand for sand towers, the unloading of fuel or other similar operations should be protected by a sign reading 'Stop, cars being loaded or unloaded'. This sign should be placed at the location providing positive protection for

the track(s) being used, either at each switch providing access to the track and the switch lined and locked to prevent movement to that track or, at each fixed derail locked in the derailing position, preventing movement into the cars being protected.

6.5: Shoving Movements

Equipment must not be shoved until the operator and the employee protecting the movement have completed a job briefing concerning how protection will be provided. Employee must be in position, provide visual protection of the equipment being shoved and participating crewmembers must not engage in unrelated tasks while making a shoving movement.

When making a shoving movement, the employee protecting the movement must:

- Position themselves ahead of the movement at a location where movement will stop. Face the equipment and bring movement towards them.
- or
- Ride the leading end of the equipment positioning themselves on the side of the operator.

When the radio is used during locomotive movement, distance and direction must be acknowledged when ANY distance is specified.

MOVEMENT MUST STOP WITHIN HALF THE DISTANCE SPECIFIED UNLESS ADDITIONAL INSTRUCTIONS ARE RECEIVED.

Equipment must not be shoved until it is visually determined that:

- Portion of track to be used is clear of equipment or conflicting movements.
- The track will remain clear to the location where movement will be stopped.
- Switches and derails are properly lined.

Shoving movements over road crossings must be made in accordance with Rule 6.32.1 (Providing Warning Over Road Crossings).

7.6 Securing Cars or Engines

Application:

The following applies:

- Before working on rolling equipment a handbrake or chock must be applied to the equipment and to adjacent rolling equipment on the same track.
- Before coupling into or cutting away from a single, coupled and/or consisted locomotive(s), a minimum of one hand brake and air brakes (if charged) must be applied.
- When left unattended on non-grade (no slope) track, a minimum of one handbrake will be applied to any uncoupled locomotive; any group of coupled locomotives and any locomotive consist.
- When rolling equipment is left unattended on grade (sloped) track, 100% of the handbrakes will be applied.
- When work requires the hand brake to be released, alternative means such as chocks or coupling to another locomotive, coupled and/or consisted locomotives with a hand brake set must be used to prevent movement.

- On units with under slung brake cylinders (attached to brake levers between the wheel versus mounted on the truck) insure the valve bleeds the air brakes off the truck when applying the hand brakes. If the brakes do not bleed off cut the truck out, apply the hand brake and cut the truck back in.

Switching or Spotting Operations in Car and Locomotive Shop Tracks

In addition to compliance to Rule 81.10; 81.5.4; and supplement Moving Equipment in Locomotive, Car or Maintenance of Way Repair Facilities, the following also applies:

- Any ground crew member intending to foul track or equipment must notify the operator before such action can take place. Operator must then apply the brakes and have reverser centered or car mover in neutral, and then confirm this action with the individual on the ground. e.g. 'UP Smith to car mover/loco unit #1234 going into the red zone to adjust the knuckle/drawbar -- over" to which the operator will respond "Car mover/loco unit #1234 to UP Smith. I understand. I am set and centered - out". If equipment is not equipped with a reverser, it must be placed in neutral or park with the brakes applied. Job briefing and/or agreed upon hand signals may be used to accomplish the above.
- Any ground crew member that intends to adjust knuckles/drawbars must ensure that the equipment to be coupled into is separated by no less than 50 feet. Also the person on the ground must ensure that the equipment will not move ensuring that sufficient hand brakes or wheel chocks are applied.
- After exiting the red zone, ground crew member should signal/notify the locomotive/car mover operator that they are clear of the red zone.

Working In Bowl and Yard Tracks or Main Tracks

Application:

- Contact train crew and yardmaster confirming intentions to make repairs to cars and/or locomotives.
- Apply blue signal protection including locking out the track.
- Ensure 2x2x2 requirements are met. Equipment is separated at least 2 car lengths (100 feet) and wait 2 minutes (to assure that all equipment is at rest) before stepping between the rails. Also apply 100% handbrakes on standing equipment opposite of equipment that requires repair.
- When possible, have a second person watch for unexpected movement while making repairs.
- Mechanical forces will apply the automatic brake with a 20-psi brake pipe reduction after completion of the air brake test.

Securing Rerailed Equipment at Derailments

Application:

- Comply with rules on properly securing cars and locomotives and the instructions in the first paragraph of this supplement.
- Be aware that all equipment may not have functional handbrakes and that necessary precautions must be taken to secure this equipment, i.e. coupling to another car or locomotive with a good handbrake applied and/or properly chocking the wheels.
- When rerailing operations are being performed on any grade (sloped) territory a derail will be applied to the low end of any track (including the mainline if applicable) on which rerailed cars are positioned. Portable derails are to be used if permanent derails are not available and placed as close to the equipment as feasible. Contractors are also required to comply with this rule.

8.20 Derail Location and Position

Application:

If a derail used for blue flag protection is found in the derailing position and is **not** being used in conjunction with Rule 5.13, employees are to:

- Warn oncoming rolling equipment to stop.
- Notify supervisor or manager by quickest available means.
- Place derail in non-derailing position as instructed.

Safety Rules Chapters 70 - 83

The following instructions modify rules or clarify the application for the Mechanical Department.

71.6.1 Highly Visible Outerwear

Application:

Clarification on vest color and designated areas for Mechanical Employees:

1. Locomotive mover teams (predominantly F&O's) are required to wear ANSI II High Visibility Orange outerwear when they are moving locomotives within the shop Blue Flag areas around servicing and repair facilities. In noise sensitive areas such as Chicago, locomotive mover teams at local management discretion may wear ANSI II High Visibility Yellow outerwear in lieu of Orange (to avoid the requirement for Engineers having to sound their horns).
2. All Mechanical Employees (except locomotive movers per paragraph 1 above) shall wear ANSI II High Visibility Yellow outerwear while working near track that is outside of their designated repair/servicing areas. Vests are not required when mechanical employees are working within designated repair/servicing areas.

72.6 Ignition Sources

Application:

1. Manager or foreman general will be notified that welding, heating or cutting must be used and the work cannot be moved to another location to perform the task.
2. The supervisor in charge of the area will see that all procedures and precautions are followed and a job briefing is developed and conducted.
3. The job briefing will include the following:
 - Only qualified employees will perform the welding, heating or cutting.
 - All personal protective equipment will be used.
 - The area must be cleaned with soap and flushed with water and no standing fuel or oil in the area. Also the area must be free of trash and debris.
 - All fueling operations within 50 feet of the operation must be stopped. This includes adjacent pits or fueling locations.
 - All individuals in the area must be notified that welding, heating or cutting will be taking place.
 - A fire watch must standby during the entire operation and be trained to operate and use the fire extinguishing equipment.
 - Potential hazards associated with the work are identified and discussed during the job briefing. This could include: securing the material being removed, equipment to handle the material or other special needs.

78.2 Lockout/Tagout

Application:

The tag out standard applies only to controlling energy whenever repairs are to be made to a locomotive or car.

This tag out procedure must be treated just like our blue flag and tag procedure.

When applying a tag out device, employee must also apply their Lockout/Tagout name tag to the device.

Mechanical Process:

- Job Briefing – Face to Face job briefing MUST take place with employees currently working on a locomotive/car before you start working on the same locomotive/car.
- Whenever 'Repairs' are to be made to a locomotive/car, you MUST identify and Tag out the Energy Source BEFORE making the repairs.
- The person applying the device MUST apply their lockout/tagout (LOTO) Tag.
- This does not apply to Load Testing or Servicing locomotives.
- Remove your LOTO name tag and tag out device when work is complete or leaving the locomotive/car/work area for an extended period of time.

Change of Shift or Personnel:

To insure the continuity of Tag Out protection during shift or personnel changes the Manager/Supervisor will ensure that:

- The transfer of Tag Out devices between the off-going and on-coming employees is coordinated to provide continuous protection.

Tag Out Device Removal:

Each Tag Out device shall be removed from each energy isolating device by the employee who applied the device. When the authorized employee who applied the Tag Out device is not available to remove it, that device may be removed as follows:

- After a reasonable search for the employee, only a Supervisor or Manager is authorized to remove a 'Tag Out Device' with no name tag.
- After a reasonable search for the employee, only a Manager is authorized to remove a 'Tag Out Device' with a name tag.
- The energy source has been verified that it is safe to re-energize.

Intentional removal of a tag or tag out device without communicating with the employee(s) that tagged out the locomotive is unacceptable at risk behavior.

Unintentionally leaving the tag out device and/or tag must be dealt with the same way we currently deal with blue flags and tags.

79.7 Torch Test

Application:

The proper sequence of closing the cylinder valves and torch valves after use will be explained. All oxygen and fuel gas torches will be tested per the following procedure:

A. Check oxygen hose from the cylinder/manifold to the torch.

1. Connect oxygen hose to the torch. Disconnect fuel gas hose at the torch.
2. Close all valves on torch.
3. Open oxygen supply valve on cylinder/manifold. Set regulator at 25 psi.
4. Close oxygen supply valve. Back out adjusting screw on regulator.
5. Observe high and/or low pressure gauge for one minute on the regulator for leakage. If leakage is observed, check connections, hose, and regulator nut. Repair. Start again at A. If no leakage is observed, proceed to B.

B. Check torch

1. Apply the test fixture to the torch tip.
2. Open all torch valves. Depress high pressure cutting lever. A small drop in pressure will occur. Pressure should stabilize.
3. Observe high and/or low pressure gauge for one minute on the regulator for leakage. If leakage is observed, check test fixture, connections, tip, tip nut, and lever valve. Make repair. Open the oxygen supply valve on the cylinder/manifold. Set regulator at 25 psi. Close oxygen valve, back out adjusting screw on regulator. Start again at B. If leak still present after second test, remove torch from service. If no leakage is observed, proceed to C.

C. Check fuel from the cylinder/manifold to the torch.

1. Close all valves on the torch. Remove test fixture. Connect fuel gas hose to the torch.
2. Open fuel supply valve on cylinder/manifold and set pressure to 10 psi.
3. Close fuel supply valve. Back out adjusting screw on regulator.
4. Observe high and/or low pressure gauge for one minute on the regulator for leakage. If leakage is observed, check connections, hose and regulator nut. Repair. Start again at C. If no leakage is observed, proceed to D.

D. Purge system of mixed gases.

1. Purge the system.
2. Open supply valves on cylinder/manifold for oxygen and fuel gas.
3. Set regulators to operating pressures.
4. Open oxygen valve on torch 1/8 turn. Ensure flow at tip. Purge 5 seconds / 25 feet of hose. Close oxygen valve on torch.
5. Open fuel gas valve on torch 1/8 turn. Ensure flow at tip. Purge 5 seconds / 25 feet of hose. Close fuel gas valve on torch, test complete.

After torch test is complete, a tag must be placed on the oxygen regulator to indicate test date and initials of individual performing the torch test.

When you have finished your cutting/welding operation ensure the following:

1. First, shut off the torch oxygen valve. Then, shut off the torch fuel valve.
2. Close both cylinder valves.
3. Open the torch handle oxygen valve. Let the oxygen in the system drain out. Close the torch oxygen valve.
4. Turn the adjusting screw on the oxygen regulator counterclockwise to release all spring pressure.
5. Open the torch handle fuel valve. Release the pressure in the system. Close the torch fuel valve.

6. Turn the adjusting screw on the fuel gas regulator counterclockwise to release all spring pressure.
7. Check the high pressure gauges after a few minutes to be sure the cylinder valves are turned off completely.
8. If the cylinders are mounted in a service truck the operator must insure that the above procedure is completed prior to the cabinet doors being closed.

80.14 Fall Protection

Instructions:

The use of fall protection is required anywhere a worker is subjected to a fall of four feet or greater (thirty inches or greater in California). A risk assessment for fall hazards should also be made for job sites where fall distances are less than those listed above. If the risk assessment warrants a personal fall protection system, it must be worn.

Work activity performed on the sides of a car or locomotive that meet the above height guidelines can be met with a work positioning harness and lanyards while tethered to a fixed ladder rung or handhold or while operating out of a boom type man lift with fall restraint / arrest systems (e.g. change out front or rear locomotive headlights). Work on top of cars or locomotives must either utilize an overhead fall protection system or the appropriate man lift with equipped fall restraint / arrest system. Work done while standing on a portable ladder (less than 20 feet in height) does not require fall protection.

Employees must be properly trained in the use of fall protection. If fall protection is not available and/or the employees are not trained, then the work cannot be done until these conditions are met.

Written Plan

Local fall protection minimum requirements in written plan will include:

- Identification of tasks with a fall hazard of four feet or more (30 inches in California).
- Annual employee fall protection awareness training (MECS04).
- Local rescue and retrieval procedure in the event of a fall.
- Pre use and annual inspection of fall protection equipment.
- Performance evaluations check and adjust training as required.

Each individual must observe for oily, icy or slippery conditions and review the safety aspects of the job task looking for any at risk conditions that might create loss of balance or use of force. The supervisor or manager and employee will review the risk assessment and correct any safety issues before work is authorized to begin.

81.2.2 Sufficient Distance

Application:

In Mechanical Department facilities equipment must be separated at least 50 feet instead of 100 feet before going between the equipment unless protected by Rule 5.13.

81.5.2 Stepping from One Car to Another

Application:

When stepping between the decks of one multilevel car to the deck of a connecting multilevel car, maintain three point contact (two feet and one hand or two hands and one foot) and keep hands free of objects. When the distance between the cars is too great to maintain a comfortable three point contact, do not step between cars.

81.7 Riding Equipment

Application:

Car and locomotive department employees are prohibited from riding any freight car, hood cart or other specifically made device used to transport parts or material by rail.

81.8.3 Impaired Clearances

Application:

Do not ride outside the cab of a locomotive, on the side of a moving car, or other equipment under impaired clearance conditions that will not allow safe passage, such as:

- Next to a structure (elevated ramps, sand towers, air emission towers, etc.).
- Through gates, doorways, into, out of or within buildings.

Before entering an impaired clearance area the:

- Movement must be stopped at least 20 feet from the impaired clearance area.
- Employee controlling the movement must get off the locomotive, or equipment, and precede it in the clear.
- Movement shall only be made upon signals from the controlling employee.

In addition, do not position yourself, or knowingly allow others to position themselves, between a structure and moving car(s), engine(s) or other equipment when clearance is impaired.

81.10 Moving Equipment in Locomotive, Car, or Maintenance of Way Repair Facilities

Addition:

These additions incorporate SOFA recommendations.

Locomotive Movers

Locomotive movers are required to wear ANSI approved orange reflective outerwear. Locomotive Movers will use a Company approved switching lantern at night or during foggy or other low visibility conditions.

Two or More Locomotive Mover Crews

When two or more locomotive mover crews are working in the same facility, extra precaution must be taken. Two or more crews are prohibited from switching in the same track or on adjacent track or tracks, at the same time, without establishing direct (face to face) communication with all other crew members involved. This communication must be in the form of a face-to-face job briefing.

Training

In order to move locomotives, an employee must be trained, certified, and be re-certified annually as a locomotive mover. The minimum qualifications are as follows:

Locomotive mover students must:

- Complete minimum classroom instruction of 3 days and pass a written exam with a score of 85% or better.
- Complete a minimum of 40 hours OJT (at least 16 hours must be during darkness).
- Successfully demonstrate and complete a final performance evaluation from a certified locomotive mover trainer.

81.15 Car Doors

Addition:

When opening or closing doors, keep fingers clear of the edge or door jamb, casting or rail on which the door travels. Keep your body clear of the door opening to avoid injury from falling freight.

Check box car doors for damage by thoroughly inspecting the top and bottom track and rollers. On plug doors examine the roller assembly, locking rods and all crank arms. Make sure the door is properly tracked before opening it. If the door is off track, take necessary precautions before opening it. If there is evidence of load shift, i.e. bulging door, take action to relieve the pressure on the car door before opening it. Guard against spinning or kicking of handles.

Do not move car, without door stops in place, unless the door has been secured by other means to prevent movement of the door.

Close and open doors with a mechanical device if normal force used by one person cannot accomplish the task. Use of excessive force is prohibited. Always position yourself in the clear, should the door fall, and be prepared for any sudden movement of the door. Use proper body positioning to prevent injury.

Paragraph 3

Paragraph 3 applies when mechanical assistance is required to slide a car door along its tracks. When checking door tracks for damage, also ensure that end stops are in place and in good condition.

When mechanical assistance is necessary, it could mean that the door assembly is unstable. Before any attempt is made to move the car door:

- All employees must be clear of the door, and out of the line of fire and the red zone.
- All door latching devices such as pins, wedges etc. must be suspended in a release position, by whatever means is available.

Rule Updated Date

May 2, 2016

[^Top](#)

[Union Pacific Rules](#)

[System Special Instructions](#)

ITEM 11: Moveable Point Frogs

- [Item 11: Moveable Point Frogs](#)

Item 11: Moveable Point Frogs

Location:

- Listed on subdivision pages by symbol (11-2) or (11-3). Switches equipped with 2 switch machines will be identified with the character (11-2), and switches equipped with 3 switch machines are identified with character (11-3).
- Identified by signs that are 24 inches wide by 18 inches high.

Signs:

- Approaching trains can view white signs with black borders and black lettering reading "Moveable Point Frog". These signs are placed directly across the track from each switch machine.
- Employees who are facing switch machines can view white signs with red borders and red and black lettering. These signs are placed directly across the track from each switch machine.
- In addition, decals are attached to each switch machine. These signs and decals read "IMPORTANT: This turnout is equipped with a moveable point frog."

Hand Operation #20 & #24 switches (11-2)

At #20 and #24 switches (11-2), there are two switch machines one of which is a moveable point frog machine.

After Receiving Permission:

At the switch point machine:

1. Inspect switch points (Ensure free of debris).(Do not remove debris until switch is placed in hand position.)
2. Unlock switch machine & place in hand position.
3. Operate the switch until switch point is seen to move. (This must be done even if the switch appears lined for intended route).
4. Line switch point for intended route & inspect.

At the frog point machine:

1. Inspect frog points (ensure free of debris). (Do not remove debris until switch is placed in hand position.)
2. Unlock frog machine & place in hand position.
3. Operate the frog until frog point is seen to move. (This must be done even if the frog appears lined for intended route).
4. Line frog point for intended route & inspect point.

Returning dual control switch machines to power:

After at least one unit or car has passed over the switch points, the employee must return the switch to power unless otherwise instructed by the control operator.

Hand Operation # 30 switches (11-3)

At # 30 switches (11-3) there are a total of three switch machines one of which is a moveable point frog machine.

After Receiving Permission:

Always operate the frog machine first.

1. Inspect frog points (Ensure free of debris). (Do not remove debris until switch is placed in hand position.)
2. Unlock frog machine & place in hand position.
3. Operate the frog until frog point is seen to move. (This must be done even if the frog appears lined for intended route).
4. Fully line frog point for intended route & inspect point.

At the first switch point machine:

5. Inspect switch points (Ensure free of debris). (Do not remove debris until switch is placed in hand position.)
6. Unlock switch machine & place in hand position.
7. Operate the switch until switch point is seen to move. (This must be done even if the switch appears lined for intended route).
8. Line switch half way, handle is in vertical position, and proceed to middle switch machine.

At the middle switch point machine:

9. Inspect switch points (Ensure free of debris). (Do not remove debris until switch is placed in hand position.)
10. Unlock middle switch machine & place in hand position.
11. Operate the switch until switch point rail is seen to move. (This must be done even if the switch appears lined for intended route).
12. Fully line switch for intended route & inspect point.

Return to first switch point machine:

13. Finish lining switch point for intended route. Inspect switch points.

Returning dual control switch machines to power:

14. After at least one unit or car has passed over the switch points, the employee must return the switch to power unless otherwise instructed by the control operator.

Job Briefing

A job briefing must be conducted with the control operator so everyone has a clear understanding on the control point, route to be taken, and which switches must be operated by hand. When making crossover movements and hand operation is required, both ends of the crossover must be hand operated. You must operate double the number of switch machines. Inspect all switch points and all frog points.

Rule Updated Date

May 2, 2016

[^Top](#)

[Union Pacific Rules](#)

[System Special Instructions](#)

ITEM 12: Track Breach Protection

- [Item 12: TRACK BREACH PROTECTION.](#)

Item 12: TRACK BREACH PROTECTION.

Track Breach Protection (TBP) is required on main track or controlled siding when occupying the area between:

- A main track and an adjacent track.
or
- A controlled siding and an adjacent track.

Exceptions

This process does not apply under the following conditions:

- Employee is crossing track(s) at a 90° angle.
- Employee's equipment occupies or prevents entry into the adjacent track.
- Employee's train has TWC authority in non-signaled territory on the adjacent track.
- Employee's train has authority to move in either direction on the adjacent track except in Yard Limits or Restricted Limits.
- When the train dispatcher informs the employee the adjacent track(s) is out of service.
or
- Employee occupying area adjacent to a foreign railroad's main track unless timetable instructions require protection.

Note: When employees are working on a track protected by Rule 5.13 (Blue Flag) or Roadway Worker Protection, TBP is not required on the adjacent track(s).

Track Breach Protection Process

For an employee to establish TBP the following applies:

Step 1 - Establishing

Main Track & Controlled Siding (outside Yard Limits/Restricted Limits):

Contact train dispatcher or EIC and provide the following information:

- Train/Job ID, including name of employee establishing TBP.
- Limits, which must be defined by control points or whole mileposts.
- Track(s) designation(s).

Train Dispatcher or EIC must repeat back the information and employee establishing TBP must confirm by stating "That is correct".

Within Yard Limits or Restricted Limits

Employee will establish Protection as designated in timetable.

Train Dispatcher or EIC Notification:

Contact train dispatcher or EIC and provide the following information:

- Train/Job ID, including name of employee establishing TBP.
- Limits which must be defined by Yard Limits/Restricted Limits and/or mileposts.
- Track(s) to be protected.

Employee Established Over the Radio

Announce over the designated radio channel Track Breach Protection has been established (specifying limits with necessary detail) using the following format:

"Train/Job ID, Employee Name____, I am establishing Track Breach Protection at Location____ - between MP ____ and MP ____ or - on Track____."

Step 2 - Recording

TBP will be recorded in the employee's Job Briefing Book or on the prescribed form to include the following information:

- Date and time.
- Limits, including track(s).
- Name of employee(s) working with the employee establishing TBP.
- When crews are working together within TBP limits, all employees working within the limits must be listed on the TBP log.
- Time released.

In Effect

Track Breach Protection Requirements:

- Before entering TBP limits or designated Yard Limits or Restricted Limits, movements must attempt to contact the employee that established the TBP for instructions. Trains must make 3 attempts (on the designated radio channel) to contact employee in the area. If response is not received, train may enter area looking out for employees working in the area. When cars are on the adjacent track, crew must continue to attempt to contact employee while passing through limits.
- TBP is not in effect until the designated supervisor has been notified or designated employee announces the establishment of TBP over the radio or the train dispatcher confirms information has been relayed to approaching train(s).
- Employee receiving confirmation from the train dispatcher must repeat back the information and the train dispatcher will state "That is correct".
- Before granting permission for a train to enter TBP limits, employee must first notify all employees listed on the TBP log of the approaching train. However, crews may work together when necessary to complete work such as exchanging power etc.
- TBP cannot be transferred from one employee to another employee.
- TBP may not be released until it is known that all employees listed on the TBP log are clear of the designated track(s).
- TBP remains in effect until released by the employee who established TBP, the employee is no longer on duty or employee's hours of service limit has expired.

Initiating Movement

Prior to initiating movement on main track or controlled siding, crew must attempt to ascertain whether track breach protection is in effect using the following methods:

- Crew must contact designated supervisor.
- Make 3 attempts (on the designated radio channel) to contact crew(s) working in the area to determine if TBP is in effect. If response is not received, train may initiate movement, looking out for employees working in the area.

Exceptions: If train is initiating movement on or to the main track or controlled siding at a controlled signal displaying a proceed indication or when crew has received information that TBP is not in effect from prior crew, it is not required to ascertain whether TBP is in effect.

Terms:

Adjacent Track

Parallel tracks that are not separated by a single lane roadway or similar distance are considered adjacent tracks.

Note: This definition only applies when determining if Track Breach Protection is required.

Breach

To enter area between two adjacent tracks.

Track Breach Protection (TBP)

Protection provided to prevent movements on adjacent track(s) while an employee is in the area between adjacent track(s). Rule 5.13 or 81.5.4 must be complied with when required.

Rule Updated Date

May 2, 2016

[^Top](#)

ITEM 13: Train Defect Detectors

- [Item 13: Train Defect Detectors](#)

Item 13: Train Defect Detectors

13.1 General Instructions For All Detectors

A. Required Action

To determine required action at a train defect detector, comply with these general instructions and instructions governing the specific type detector. Some locations have more than one type defect detector in service.

Stop Signal (Hold Signal)

When a Stop signal is used in connection with a detector, the signal will display Stop until the entire train passes the detector and it identifies no defect.

B. Use of Air Brakes and Train Speed

When operating conditions allow, avoid excessive braking, stopping, or reducing train speed below 15 MPH when approaching or passing detectors. Excessive braking may cause false indications on hot box detectors. Speeds below 15 MPH may cause 'Integrity Failure' or 'Slow Train' message. When a 'Slow Train' message is announced, refer to Item 13.8 Detector Failures for instructions.

C. Detector Failure

When a train defect detector fails for any reason, refer to Item 13.8 Detector Failures.

D. Axle Count

When a detector gives an axle count for a defect location, a crew member must:

- Physically count axles from the head end, including locomotive axles, to the indicated axle.
- Inspect indicated axle and all axles on both sides of that car/platform/unit/well. If no defect is found, inspect 20 axles ahead and 20 axles behind, on both sides of train, from the indicated car/platform/unit/well.

When a verbal defect detector transmits an axle count that disagrees with the train consist by a **variance of +/- 3 or more axles**, the train crew must:

- Immediately reduce speed to 30 mph and report the inaccuracy to the train dispatcher.
- After receiving corrective information, resume authorized speed.

Note: If previous detectors have transmitted correct axle counts and the train speed has not been below 15 MPH, the train may proceed at authorized speed. The inaccuracy must be reported to the train dispatcher.

E. Inspection

The inspection must ensure that:

- Retaining valve is in exhaust position.
- Hand brake is fully released.
- Brakes are not sticking.
- Truck bolster is not broken.
- Brake rigging is not down or dragging.
- Lading is not down or dragging between cars.
- Wheels are not broken.
- Lading has not dropped down through container floors or cross members of multi-unit/well cars.

When a defect is found that cannot be corrected, and car is safe to move, set the car out and notify the train dispatcher. Mechanical personnel may inspect and/or repair the car and approve it for movement.

F. Notification

Notify the train dispatcher any time a train defect detector requires the train to stop and inspect for defects. The train dispatcher may have additional information from a remote readout.

Detectors may be on different subdivisions, crew districts or train dispatching territories. Therefore, train dispatchers and conductors must communicate information relative to inoperative detector or defective car to one another.

G. No AC Power

When detector transmits "No AC Power" message, notify the dispatcher. This is not to be considered a detector failure.

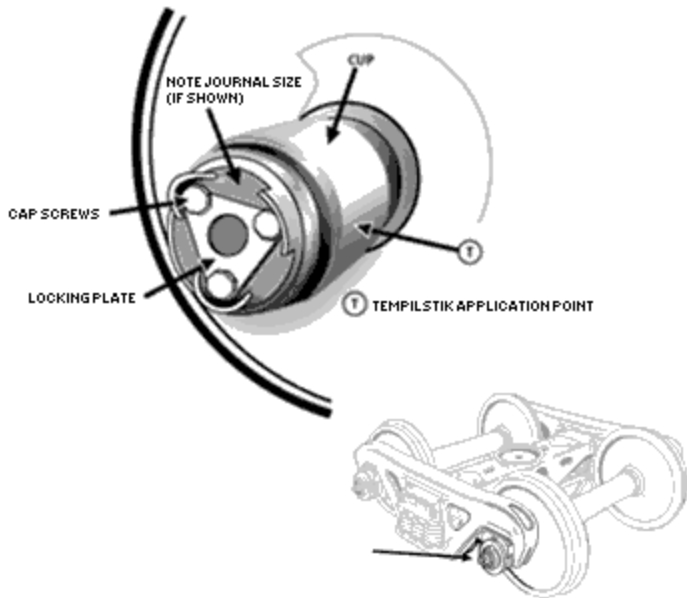
H. Unable to Complete Inspection

If a bridge or other physical characteristic prevents the required inspection, move the train not exceeding 5 MPH, no further than necessary to make the inspection. Observe movement, especially cars approaching a bridge structure. If any unusual condition is detected, stop movement at once.

I. Hot Box Detectors

Inspect a car for a hot journal identified by axle count as follows:

- Train may be moved ahead not exceeding 5 MPH to the location of the indicated defect under the following conditions:
 - Train is not a KEY train.
 - Train is not operating on rails with concrete ties.
 - Indicated axle will not pass over a switch.
 - It is not the second hot box detector activation on the same car.
 - A visual observation of the train indicates no smoke, flame or abnormal amount of dust.
 - The train does not require excessive power to continue movement.
- Inspect the journal identified by axle count using a 200 degree F temperature stick or temperature heat gun to determine if the journal is overheated. Set the car out if the overheated journal bearing melts the mark made with the temp stick or the temperature heat gun reading exceeds 200 degrees.



If there are no obvious signs of overheating:

- Cautiously place your bare hand on the truck side frame.
 - Move your hand toward the roller bearing cap, keeping in mind that any part of this equipment may be extremely hot.
- If you cannot hold your bare hand on the side frame or the roller bearing cap for a few seconds, set out the car.
 - If any journal is noticeable warmer than other journals on the car, set the car out.
 - Set out any car in a KEY train that experiences a hot box detector actuation that cannot be corrected, even if the overheated journal cannot be found on that car. However, do not set that car out if an overheated journal is found within 20 axles ahead of or behind that car/platform/unit/well. Mechanical personnel may inspect and/or repair the car and approve it for movement.
 - Set out any car that experiences two consecutive hot box detector actuations, even if the inspection reveals no hot journal. However, passenger equipment and business cars do not need to be set out if the inspection reveals no hot journal.
 - When a car is to be set out:
 - Move the car not exceeding 5 MPH to the nearest location where it can be set out, unless a different location or speed is specified by the train dispatcher.
 - Note the type of defect on proper tags and attach tags, one on each side of the car.
 - Notify the train dispatcher.

Exceptions:

- Passenger equipment, business cars, and roadway maintenance equipment do not need to be set out if the inspection reveals no hot journal.
- If a detector identifies hot journals on more than 2 cars/platforms/units/wells on a train, it is usually a malfunction of the detector. In such case, if no defect is identified during the inspection, cars do not need to be set out at that location. Comply with Action No. 3 contained in 13.8.2 (Detector Failure - Action Table).
- When an overheated journal is identified on a steam locomotive or tender, it is not necessary to stop and inspect. However, the assigned manager in charge may instruct otherwise.

J. Dragging Equipment Detectors

When a defect is detected, visually inspect the train for dragging equipment as required by existing instructions. When operating on rails with concrete ties, if no defect is found, perform an audible inspection, listening for indications of a broken wheel, as follows:

- If grade conditions permit, position yourself 10 cars/platforms/units/wells ahead of the indicated axle and roll the train by 20 cars/platforms/units/wells, listening for indications of a broken wheel. If no axle count is given by the detector, audibly inspect the entire train.
- If grade conditions do not permit, proceed not exceeding 20 MPH to the first location where grade conditions do permit making the audible inspection.
- If a sound is heard suggesting a broken wheel (thumping sound), set out the car having that wheel and report it to the train dispatcher.

K. Hot Wheel Detectors

When a hot wheel is identified by a train defect detector the following applies.

- Inspect the car/platform/unit/well identified by axle count. Train may be moved ahead not exceeding 5 MPH to the location of the indicated defect.
- Ensure that all hand brakes on car/platform/unit/well are released.
- Ensure that the retainer valve is in the exhaust position.
- Inspect for sticking air brakes. Cut out air brakes if necessary to release brakes (Refer to Rule 30.2.2). If there are no obvious signs of overheating, cautiously place your bare hand near the wheel tread. If no heat is detected, cautiously move your bare hand on the wheel closer to the wheel tread, keeping in mind that any part of this equipment may be extremely hot. Inspect all wheels on the identified car/platform/unit/well.
- During inspection check wheels for flat spots and tread build-up.
- If no defect is found, inspect the wheels and brakes on 20 axles ahead and behind the identified car/platform/unit/well on both sides of the train.

When obvious signs of overheating are identified and the cause cannot be corrected or car is not safe for movement, set the car out and notify the train dispatcher. When a car is set out due to a defect being identified, move the car if safe, not exceeding 5 MPH to the nearest location where it can be set out unless a different location is specified by the train dispatcher. Note the type of defect on proper tag and attach near defect

Releasing an applied handbrake or rectifying a stuck brake situation by cutting out the air or moving the retainer to the proper position will be considered a correction for a hot wheel defect. When the car/platform/unit/well will remain in the train, inspect it for a hot journal.

When a hot wheel is identified on a steam locomotive or tender, it is not necessary to stop and inspect. However, the assigned manager in charge may instruct otherwise.

L. Talk On Arrival and Defect Only Detector

When a detector Timetable Character is paired with the '+' character [#+, (#)+, (!)+, etc.], it indicates the detector is equipped with the Radio Transmitted Talk On Arrival and Defect Only feature. The '+' character does not change any instructions contained within Item 13 for the detector it is paired with.

Detectors equipped with the Talk on Arrival and Defect Only feature will normally not transmit a "No Defect" message. When detector does transmit this message, report the transmission to the train dispatcher; this is not considered a detector failure.

13.2 Hot Box or Hot Box/Hot Wheel and Dragging Equipment Detector with Radio Transmitted Defect Indicators

This applies to Timetable Characters "#" (Hot Box) and "(#)" Hot Box (Hot Wheel) and Dragging Equipment. The # detectors inspect for hot journals. The (#) detector inspects for hot journals and dragging equipment and may inspect for hot wheels.

The detector may announce to the crew that the system is operational when movement begins over the detector. The detector transmits a "No Defect" message if no defects are detected after the train passes the detector.

When a defect is detected:

- Hot Box:
 - Immediately begin to reduce speed using train handling techniques to minimize in-train forces. Stop the train once the train has cleared the detector.
- Dragging Equipment:
 - Stop the train immediately and inspect for dragging equipment.
- Inspect the train for the indicated defect(s) as required by Item 13.1.

13.2.1 Hot Box or Hot Box/Hot Wheel, High Wide Shifted Load and Dragging Equipment Detector with Radio Transmitted Defect Indicators

This applies to Timetable Character '(!)'. The (!) detector inspects for hot journals, dragging equipment, High Wide Shifted Loads and may inspect for hot wheels.

The detector may announce to the crew that the system is operational when movement begins over the detector. The detector transmits a 'No Defects' message if no defects are detected after the train passes the detector.

When a defect is detected:

- Hot Box:
 - Immediately begin to reduce speed using train handling techniques to minimize in-train forces. Stop the train once the train has cleared the detector.
- High Wide Shifted Load or Dragging Equipment:
 - Stop the train immediately and inspect the train for the indicated defect.
 - A crew that receives a high wide shifted load message must inspect the train for any load that has excessive width or height, or any load that has shifted.
Train may be moved not to exceed 5 MPH to assist making inspection. If necessary, set the car out. In addition, notify the train dispatcher, who will call the signal maintainer to reset the detector.
- Inspect the train for the indicated defect(s) as required by Item 13.1.

13.3 Hot Box or Hot Box/Hot Wheel) and Dragging Equipment Detector with Radio Transmitted Defect Indicators Talk On Defect Only

This applies to Timetable Characters "\$" (Hot Box) and "@" Hot Box (Hot Wheel) and Dragging Equipment. The \$ detectors inspect for hot journals. The @ detector inspects for hot journals and dragging equipment and may inspect for hot wheels.

The detector will normally not transmit a "No Defect" message. When detector does transmit this message, report the transmission to the train dispatcher so the Stop signal may be cleared. This is not considered a detector failure.

When a defect is detected:

- Hot Box:
 - Immediately begin to reduce speed using train handling techniques to minimize in-train forces. Stop the train once the train has cleared the detector.
- Dragging Equipment:
 - Stop the train immediately and inspect for dragging equipment.
- Inspect the train for the indicated defect(s) as required by Item 13.1.

13.4 High Wide Shifted Load Detector and Dragging Equipment Detector with Radio Transmitted Verbal Defect Indicators

This applies to Timetable Characters "&" and "(&)".

Some detectors announce to the crew that the system is operational when movement begins over the detector.

When a defect is detected:

- Stop the train immediately and inspect the train for the indicated defect.
- Follow instructions that apply in Item 13.1 (General Instructions for All Detectors).
- A crew that receives a high wide shifted load message must inspect the train for any load that has excessive width or height, or any load that has shifted. Train may be moved not to exceed 5 MPH to assist making inspection. If necessary, set the car out. In addition, notify the train dispatcher, who will call the signal maintainer to reset the detector.

Detectors identified by "(&)" only transmit a message, if a defect is found.

13.5 Dragging Equipment Detectors Equipped With Radio Transmitted Verbal Defect Indicators Talk On Defect Only

This applies to Timetable Character "%".

The detector announces only when it detects a defect.

If a defect is detected, an alarm tone or message transmitted, stop the train immediately and inspect for dragging equipment. If no axle count is given, and the train has cleared the detector, inspect the entire train.

If the train has not cleared the detector, inspect the portion of the train that has passed over the detector. If another defect is detected when departing, inspect the portion of the train not previously inspected.

13.6 Wheel Impact Detectors Equipped With Radio Transmitted Verbal Defect Indicators - Talk On Defect Only

This applies to Timetable Character "@".

The detector announces only when it detects a defect.

The detector announces defects approximately 30-45 seconds after the entire train has passed the detector.

The detector will transmit total high impact wheels detected for the entire train followed by each individual impact including the Level of each impact. Car initial and number (when available) along with total car count from head end of train including the locomotives will follow. For Level 2 impact defects, the specific wheel location on the indicated car may also be announced.

- For either Level 1 or Level 2 impacts, stop the train and inspect indicated car for damaged wheel. If safe to move, limit train speed to 30 MPH and set indicated car out at next available location, unless a different location is specified by the train dispatcher.

If transmission is not clearly understood, reduce train speed to 30 MPH and contact the train dispatcher for defective equipment identification.

13.7 Wheel Down Indicators

This applies to Timetable Character '(*)'

When a wheel down is detected by a trackside indicator, stop the train as soon as possible consistent with train handling techniques that will minimize in train forces.

13.8 Detector Failures

When a detector fails to operate properly, refer to Item 13.8.1 (Failed Detector Situation Table) to identify the specific detector failure situation and train type. Note the action number listed on the right side of the table for that type failure situation and train type directly under the type detector that has failed. Refer to the table in Item 13.8.2 (Detector Failure - Action Table) and comply with the instructions for that action number.

13.8.1 Failed Detector Situation Table

Failed Detector Situation	Type of Train	Type Detector				
		13.2 (#), # or (#)+ # +	13.2.1 (!) or (!)+	13.3 \$ or @	13.4 & or (&)	13.5 % 13.6 (@) 13.7 (*)
a. Track bulletin or verbal information from train dispatcher instructs crew that detector is out of service.	KEY Trains	3	3 & 4	3	4	NAR
	Other Than KEY Trains	5	4 & 5	5	4	NAR
b. Detector announces 'Dragging Detector Malfunction'	All Trains	7	1	7	1	7
c. Detector announces "Integrity Failure" or "Detector Malfunction" message – and NO defect message or tone received.	All Trains	2 & 3	Integrity Failure: 2 & 3 Detector Malfunction: 2 & 4	2 & 3	2 & 4	7

d. Detector announces 'Slow Train' and NO defect message or tone received.	KEY Trains	2 & 3	2, 3 & 4	2 & 3	2 & 4	NAR
	Other Than KEY Trains	5	5	5	NAR	NAR
e. Detector announces 'Integrity Failure' or 'Slow Train' message AND defect message or tone received.	All Trains	1 & 2	1, 2 & 4	1 & 2	2 & 4	1 & 2
f. Crew members receive NO arrival or exit message from the detector.	KEY Trains	1 & 2	1, 2 & 4	NAR	2 & 4	NAR
	Other Than KEY Trains	2 & 3	2, 3 & 4	NAR	2 & 4	NAR
g. Crew members do not understand arrival or exit message from detector and NO defect message or tone received.	KEY Trains	1 & 2	1, 2 & 4	NAR	2 & 4	NAR
	Other Than KEY Trains	2 & 3	2, 3 & 5	NAR	2 & 5	NAR
h. Crew members do not receive or understand arrival or exit message from detector AND defect message or tone received.	All Trains	1 & 2	1, 2 & 4	1 & 2	2 & 4	1 & 2
i. Detector announces 'High/Wide Detector Malfunction'.	All Trains	NAR	2 & 4	NAR	2 & 4	NAR

NOTE: "NAR" in the action number column means "No Action Required."

13.8.2 Detector Failure - Action Table

Action	Detector Failure - Action Required
1.	Stop the train at once and inspect train on both sides for defects. For Hot Box detectors (13.2) immediately reduce speed using train handling techniques to minimize in-train forces. Once the train clears the detector, the train must be stopped immediately, within 4 miles, consistent with good train handling.
2.	Immediately attempt to report condition to the train dispatcher.
3.	Proceed as follows: <ul style="list-style-type: none"> • Key trains not exceeding 30 MPH. • All other trains may proceed at maximum authorized speed.

	<p>Within 30 miles of the failed detector, one of the following conditions must be complied with:</p> <ul style="list-style-type: none"> a. Train passes other detector(s) that checks for all of the same defects. All of the same defects must be checked for within the 30 miles. b. Crew may establish rollby inspection of the train by qualified employees located on both sides of the train. Speed must not exceed 10 MPH during this inspection. c. Stop the train and make a rollby inspection of the train by crew members located on the ground. Speed must not exceed 10 MPH during this inspection. Roll-by inspection may be made on one side. A walking inspection or Rule 6.6 may be used to make inspection of the opposite side. d. The train dispatcher may choose to stop the train and have the crew make an inspection of the entire train. e. Stop and inspect the entire train when the next consecutive detector that checks for any of the same defects fails.
4.	Freight trains approaching the protected structure must stop and inspect entire train before reaching protected structure. Freight trains moving away from the protected structure must stop and inspect entire train unless instructed that the detector is out of service. When an inspection is required, train may be moved not to exceed 5 MPH to assist making inspection.
5.	Proceed at maximum authorized speed unless otherwise instructed by the train dispatcher. Stop and inspect the entire train when the next consecutive detector(s) that checks for any of the same defects fails.
6.	<p>Reduce train speed to 30 MPH and immediately contact the train dispatcher to determine if the train contains a defective car.</p> <ul style="list-style-type: none"> a. If train does not contain any defective car, train may proceed at maximum authorized speed. b. If train contains either a Level 1 or Level 2 impact defect, stop the train and inspect indicated car for damaged wheel. If safe to move, limit train speed to 30 MPH and set indicated car out at next available location, unless a different location is specified by the train dispatcher.
7.	<p>If a train receives this message on two consecutive detectors:</p> <ul style="list-style-type: none"> a. Immediately stop the train and contact the dispatcher. b. Inspect the entire train on one side looking for dragging equipment.

NOTE: If the train dispatcher has access to a remote readout, crew may be governed by train dispatcher's instructions. If remote readout shows there is no defect, the train dispatcher may authorize the train to continue at normal speed. If remote readout shows location of a defect, the train dispatcher may authorize the train crew to perform the required inspection using axle count for defect location.

Rule Updated Date

May 2, 2016

[^Top](#)

[Union Pacific Rules](#)

[System Special Instructions](#)

ITEM 14: Operating With Foreign Railroads

- [Item 14-A: UPRR Crews Operating Over Foreign Railroads](#)
- [Item 14-B: Foreign Railroads Operating on UPRR Tracks](#)

Item 14-A: UPRR Crews Operating Over Foreign Railroads

Unless otherwise specified, operation over foreign railroads will be governed by the following:

- Operating Rules of the foreign railroad. However, UPRR crews operating on a foreign railroad are required to properly complete a UPRR Conductors Report Form or a similar foreign railroad form as required by UPRR rules. UPRR crews will be governed by UPRR Rule 2.21.
- Timetable and Special Instructions of the Foreign Railroad
- UPRR Air Brake and Train Handling Rules
- UPRR Safety Rules
- UPRR Instructions For Handling Hazardous Materials (Form 8620)
- Respect all restrictions listed in UPRR System Special Instructions Item 2-A (Parts 1, 2 and 9 through 12), Item 2-B, Item 2-C and Item 14 unless foreign railroad's requirements are more restrictive.
- UPRR crews will be governed by UPRR Rule 2.21.

When operating on foreign railroads that have more restrictive speed restrictions for empty cars, consider any car as empty when the explanation in the Commodity column of the train consist shows NONREV or the car as a revenue empty (REVMTY or MTYTTX). This is true despite the entry in the Car Kind column.

Rule Updated Date

May 2, 2016

[^Top](#)

Item 14-B: Foreign Railroads Operating on UPRR Tracks

A. Train Make-up Requirements.

Foreign railroads operating on the UPRR are governed by that railroads train make-up requirements.

B. Track Stability

When track work has affected track stability, the train dispatcher may advise all affected trains that Air Brake Rule 34.2.13 applies on a track restriction using either of the following methods:

1. Issue a Form C track bulletin, using the words "Air Brake Rule 34.2.13 applies to Track Bulletin No. _"
or

2. Issue a Form A track bulletin, including in the TRACK(S) column the identification of the tracks affected, followed by "34.2.13"

When using this method, the following train handling instructions apply only to the limits identified on that line of the track bulletin.

When Level 1 or Level 2 heat restrictions are in effect, Rule 34.2.13 applies to the extent practicable.

The conductor must remind the engineer sufficiently in advance of any restriction or known conditions to allow the engineer to use train handling techniques that will minimize in-train forces.

When proceeding through the limits of the track bulletin, radio speed restriction, or wherever instructed to comply with Rule 34.2.13, the engineer must use the following train handling techniques to minimize in-train forces when possible:

- Use throttle modulation or low dynamic brake amperage.
- Avoid making slack adjustments.
- Avoid applying or releasing automatic brakes.
- Make power and brake adjustments before or after the restriction.

When operating with distributed power at the rear of the train:

- When in power, operate in synchronous mode or in independent mode with distributed power 1-3 throttle notches below the lead consist.
- When in dynamic brake, operate in synchronous mode or in independent mode with distributed power 1-3 throttle positions above the lead consist.

C. Conductor Awareness Forms.

Foreign railroad crews operating on the UPRR are governed by that railroad's rule concerning awareness forms.

Rule Updated Date

May 2, 2016

[^Top](#)

ITEM 15: Work Orders

- [Item 15: Work Orders](#)

Item 15: Work Orders

These instructions apply to conductors.

A. Work Order Document

For crews that move railroad cars between Circ-7's (stations), pickup and/or spot industries or pull and/or deliver interchanges, a computer-generated Work Order document prescribing the moves will be provided (may be generated by the conductor). This document will be furnished to the conductor at the beginning of or during their tour of duty. The conductor must record the following times on this document:

- Pull and/or Pickup times.
- Station/Yard Setout times.
- Industry Placement (spot) times.
- Interchange Delivery times.

When making Station/Yard Setouts the conductor must record the yard number and track number of the track into which each car was setout. Also record the direction and sequence of each setout car showing how each car lines up within the track.

When handling any car differently from the instructions that appear on the Work Order document, note the exception to the car detail line in the blank space appearing above it. Print the Setout Exception code in the "EX" column of the car detail line. For every line of scheduled work not done, the conductor must print the appropriate "Not Done Reason" code in the "EX" column. All car detail lines prescribing work within the limits of the crew assignment must be accounted for as either done or not done.

As each block of work is completed, record the movement data in a timely manner.

The conductor must sign and date the completed form.

B. Form 29363

When performing unscheduled or additional work (work not prescribed by the Work Order document), the conductor must record the moves on Form 29363.

C. Other Documents and Instructions

Treat the document used (such as a track list) as a work order at locations where the crew does not receive Work Order documents or where a job is designated to pickup or setout cars from an industry/interchange. Note on the document the work done as explained in section A.

1. Verbal Work Instructions

When the conductor receives verbal instructions, record the work done. When the customer requests intraplant switching

moves, record the name of the customer's employee requesting such moves in the RSN field of Form 29363. If form is not available, record the car movements on the reverse side of the Work Order document.

2. Customer Document

If the customer provides switch lists to the crew, the conductor has two alternatives:

a. If the conductor can retain the customer document:

- Note the date and time each block of work was completed.
- Note type of work the crew did, even if the customer previously noted the work on the document. Examples include pulls, placements, or switches to another spot.
- Note any exceptions (or work not done) to the documents under the appropriate equipment ID's.
- Date and sign the bottom of the list.

b. If the customer chooses to retain the document for its own records and will not release the list:

- Transfer all pertinent information from the document to Form 29363 (see section B) or a handwritten list if Form 29363 is not available.
- Date and sign the list.

D. WORK COMPLETED

Upon completing all work, the conductor must close out the Work Order document. On the "WORK COMPLETED BY" line the conductor records the Circ-7, date and time showing where and when the document is closed out and also affixes his or her signature. If forms are not available, mark and sign the track lists used in the manner prescribed above.

When assigned to a work train, conductors are required to complete their work orders and report the location of cars in the work train at the end of their tour of duty; including train symbol, Circ-7, and yard/track where train was left.

Completed work orders can be faxed or called into the Company Material desk in the NCSC at:

- Fax: 1-800-877-5108 or company line 8-106-2178
- Phone: 1-800-243-5417 option 3, or company line 8-106-7047 option 3

E. ATCS-GUI

Introduction to ATCS-GUI

The Advanced Train Control System - Graphical User Interface (ATCS-GUI) Work Order reporting applies to all through freights, local freights, industry jobs, and interchange transfers. The Service Unit continues to provide ATCS-GUI training on the desktop computers located in the crew rooms. All conductors must complete ATCS-GUI training.

Instructions for obtaining ATCS-GUI training are available through the TE&Y Portal on the OFF DUTY page under Job Aids.

Lack of training does not relieve an employee from reporting freight car movement activity by means of ATCS-GUI. Contact the ATCS-GUI help desk for assistance.

1. Work Order Reporting

Upon completing all documents prescribing car movement information (including the Work Order Issues) the conductor must furnish car movement data to MyUp. The preferred method is by means of the ATCS-GUI/Mobile Work Order reporting system.

The conductor is to report work by means of the available computer equipment found in Company facilities. The same desktop computers found in depots, yard offices, crew shanties, and crew lodging facilities have software for logging-on to MyUp and for reporting ATCS-GUI Work Order activity. Work may be reported at any time during the shift and whenever possible, conductors must arrange their work activities to allow enough time, at end of shift, to report Work Order activity before the expiration of their Hours-of-Service. Where this is not possible, be governed by the requirements of the Hours-of-Service Law.

2. ATCS-GUI Help Desk

Help with using the ATCS-GUI Work Order reporting system may be obtained by calling the ATCS-GUI help desk at Company telephone 8-544-5555 Option 7 then Option 2 or toll free long distance 1-800-621-8953 Option 7 then Option 2.

F. Automatic Equipment Identification (AEI)

As each assignment makes its way through a terminal, or across a territory, it may pass one or more AEI scanners. AEIs may report some pickups and/or setouts, industry placements, and interchange activity. Do not assume that an AEI is doing any or all of the Work Order reporting. Logon to ATCS-GUI at the final terminal and confirm that all scheduled and unscheduled work has been reported correctly.

G. Hours of Service Situations

1. Approaching 12 Hours on Duty

Whenever an assignment is approaching 12 hours on duty, the conductor will have the assignment's Work Order Issue document completed to that point. All car detail lines appearing on the Work Order Issue document covering work between the crew's initial station and the 12-hour duty limit point must be properly completed with all appropriated entries. This includes both scheduled work and unscheduled, or additional work recorded on customer supplied documents or Form 29363.

2. Failure to Complete Trip

If an assignment fails to reach its final terminal, the conductor will ascertain from the train dispatcher, appropriate yardmaster, carrier officer, or other proper authority as to whether he or she should either:

- Leave the Work Order documents with the train for a relieving conductor to report
or
- Take the Work Order documents into final terminal for handling per local instructions.

Whenever a conductor is called to perform relief service, the conductor must report all Work Order data that was left with the train being relieved. Upon reaching the final terminal report all work for the relieved train before performing additional Hours-of-Service relief moves or other work. This instruction applies both to a conductor specifically called for relief service and to a conductor temporarily diverted from their present assignment for the purpose of performing relief service.

H. Faxing to the National Customer Service Center (NCSC)

Sending a completed Work Order Issue document to the appropriate Work Order representative at the NCSC by means of facsimile (FAX) transmission may be done only under the following circumstances:

- No functioning desktop computer is available,
- The desktop computer is unable to establish a communication link with the ATCS-GUI server,
or
- Network is down.

Before faxing, call the ATCS-GUI Help Desk at Company telephone 8-544-5555 Option 7 then Option 2 or toll free long distance 1-800-621-8953 Option 7 then Option 2 to obtain a *Fax Authorization Number*. Record the Fax Authorization Number on the first page of the Work Order Issue document (or its equivalent) before faxing.

The NCSC cannot process any scheduled or unscheduled work without a Fax Authorization Number.

I. Mobile Work Order System

The Mobile Work Order System is designed to perform timely work order reporting using a Mobile Work Order Reporting device. The device can only be used to report work order activities and must not be modified to perform any other function. Be governed by GCOR Rule 2.21 Part B while using the device.

The assigned employee is responsible for the device and care must be taken to not damage the device.

The assigned employee must turn the device on and log into the system at the start of tour of duty. Device must remain on during tour of duty to allow customer communication of work to be performed.

The assigned employee is required to report the work performed on the device in a timely manner, and as real time as possible. This will prevent customer communication after the initial time of reporting at the customer location.

The device must be returned to the pool device location at the end of tour of duty unless the device is assigned to an employee or the employee is staying at the away from home terminal and a pool device location is not available.

Problems with the device must be reported to the employee's supervisor, and work order reporting completed via the Desk Top version of the Mobile Work Order Application.

Rule Updated Date

May 2, 2016

[^Top](#)

ITEM 16: Tornado Watch and Warning Instructions

- [Item 16: Tornado Watch and Warning Instructions](#)

Item 16: Tornado Watch and Warning Instructions

Background:

Tornadoes are the most violent of all storms. Paths of destruction range from a few hundred feet in width to more than a mile, and extend the length of a city block to three hundred miles. Rotating winds exceed 200 MPH. Forward travel varies from 5 to 70 MPH, with an average speed of 40 MPH. It is impossible to predict exactly where they will develop or touch ground. The greatest potential for such storms exists from April through September and ordinarily occurs between noon and midnight, with more than 50% striking between 1500-1900.

Standard Personnel Protection:

In a home or office go to the basement, away from windows, and seek protection under a workbench, heavy table, stairway, or in a closet. In a building lacking a basement, go to an inner hallway or room, including bathrooms or closets, on the lowest floor. Cover yourself with heavy blankets to protect from flying glass and debris. If unable to reach one of the above areas safely, the nose compartment of a diesel unit is a suitable shelter. Abandon mobile homes.

Tornado Warning Means:

A tornado has been sighted or verified by the National Weather Service or by persons associated with official weather spotters. The train dispatcher will keep trains informed of limits of Tornado Warnings. Train crews are to follow the instructions as outlined below:

- During a Tornado Warning, all train movements and yard activities must stop. Any train en route will stop and employees will seek appropriate shelter.
- Consistent with the safety of all involved, avoid stopping a train:
 - On high bridges,
 - Across railroad and highway crossings at grade, or
 - Anyplace where the presence of a train could be a hindrance.
- After a Tornado Warning has been cleared and such information has reached the train crews, if the path of the tornado crossed the tracks at their location or in the immediate vicinity, crew members must:
 - Inspect their train before moving to find out if any damage or derailment has occurred to the train, and
 - Inspect track structure for signs of damage from the tornado.
- After inspecting the train and track, the train may go. However, be prepared to stop when approaching bridges, culverts and other points likely to be affected within the limits of the tornado path. If unable to go safely, stop the movement and do not resume movement until safe to do so. Advise the train dispatcher of such conditions by the first available means of communication. In case of communication failure, strictly follow standard operating procedures.

County-Based Tornado Warning Means:

A tornado has been sighted or verified by the National Weather Service or by persons associated with official weather spotters somewhere within the county. Train crews notified of such warnings are to follow the instructions as outlined below:

- During a County-Based Tornado Warning continue all train movements and yard activities, keeping alert for any signs of weather change. The danger signs to look for are severe thunderstorms, hail, roaring noise, a funnel cloud or any combination of the above.
- In the event a crew spots a funnel cloud, immediately notify the train dispatcher consistent with the crew's safety, giving details as to the sighting.
- Any train or yard assignment having an occupied caboose, upon being notified of a County-Based Tornado Warning will stop and move the occupants from the caboose to the locomotive consist. If while moving to the head end, the County-Based Tornado Warning turns into a Tornado Warning or a funnel cloud is spotted, the exposed persons should seek shelter in a nearby ditch, ravine, culvert, under a bridge, or in a depression. If none of these are available, lay face down on the ground with the hands over head. Be far enough away so the caboose or any other car in the train cannot topple on you.

Rule Updated Date

May 2, 2016

[^Top](#)

[Union Pacific Rules](#)

[System Special Instructions](#)

ITEM 17: Accessing General Orders and Bulletins Electronically

- [Item 17: Accessing General Orders and Bulletins Electronically](#)

Item 17: Accessing General Orders and Bulletins Electronically

The timetables, subdivision general orders, and system general orders now may be accessed from the UPRR Employee website. Select **Departments**, then select **Operating**. Next select **Union Pacific Rules (including GCOR)**, then click on the desired link from the **Electronic Rules, Bulletins and Timetable (ERT)** page.

Rule Updated Date

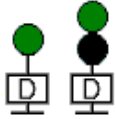
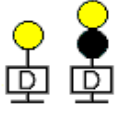
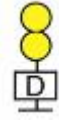
May 2, 2016

[^Top](#)

ITEM 18: Distant Signals

- [Item 18: Distant Signals](#)

Item 18: Distant Signals

RULE	NAME	ASPECT	INDICATION
9.1.1	Distant Signal Clear		Proceed. If delayed as per Rule 9.9 or Rule 9.9.1 between this signal and block or interlocking signal, proceed prepared to stop before any part of train or engine passes the next signal.
9.1.2	Distant Signal Approach		Proceed prepared to stop before any part of train or engine passes the next signal or switch point indicator. The maximum speed is 20 MPH+ within interlocking limits or within the limits of the control point for which Distant Signal Approach is displayed at the distant signal.
9.1.3	Distant Signal Approach Diverging		Proceed prepared to advance on diverging route at next signal at prescribed speed through turnout.

Rule Updated Date




May 2, 2016





[^Top](#)

ITEM 19: Block and Interlocking Signals

- [Item 19: Block and Interlocking Signals](#)

Item 19: Block and Interlocking Signals

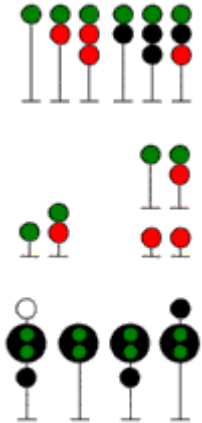

Explanation of symbols:  White light  Dark  Flashing color

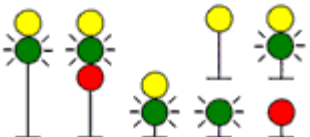
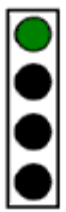
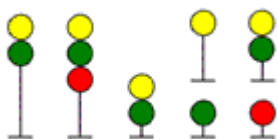
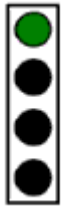
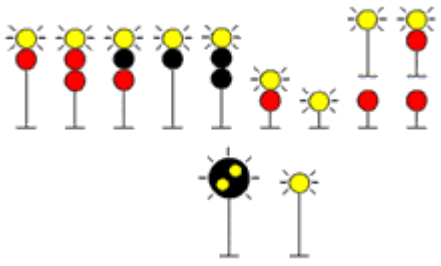
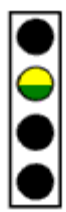
 "G" plate  Lunar light  Number plate  "C" plate

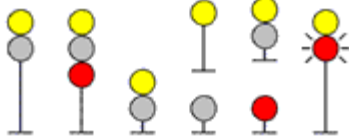

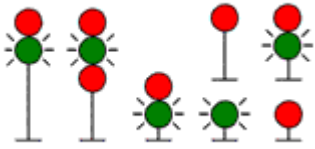

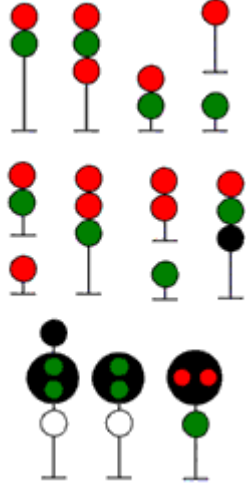



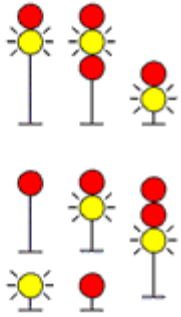
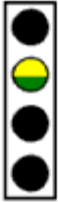
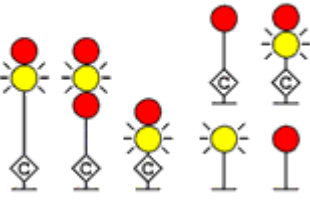
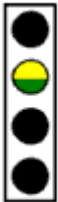
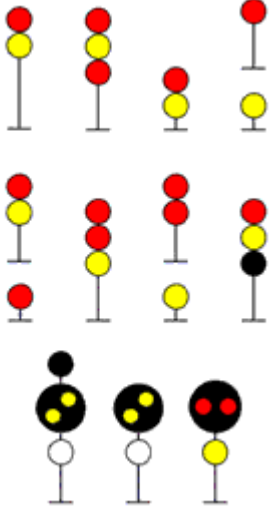
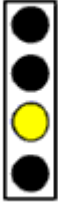
Color position signal head - When one color only is displayed in a color position signal head, it is to be considered the same as two lights.



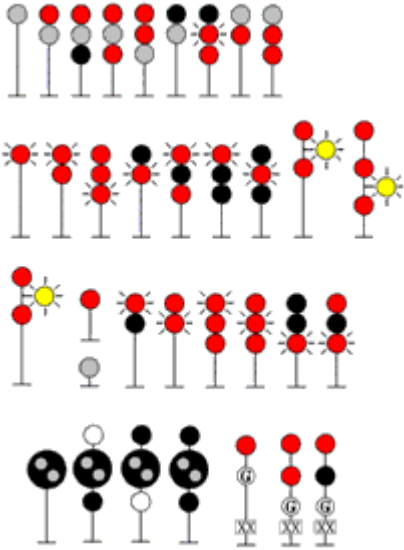

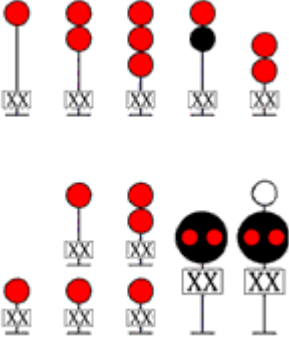

Unless otherwise specified or signal mast is shown with a number plate, signal aspects shown apply to signals with or without number plates.

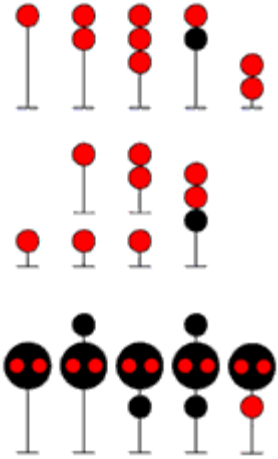




RULE	NAME	ASPECT	ACS	INDICATION
9.2.1	Clear			Proceed.
9.2.2	Approach Clear Sixty			Proceed. Freight trains exceeding 60 MPH must immediately reduce to 60 MPH. Passenger trains may proceed, but must be prepared to pass the next signal not exceeding 60 MPH. When signal governs the



				<p>approach to a control point with a 60 MPH turnout speed be prepared to advance on diverging route.</p>
9.2.3	Approach Clear Fifty			<p>Proceed. Freight trains exceeding 50 MPH must immediately reduce to 50 MPH. Passenger trains may proceed, but must be prepared to pass the next signal not exceeding 50 MPH.</p> <p>When signal governs the approach to a control point with a 50 MPH turnout speed be prepared to advance on diverging route.</p>
9.2.4	Advance Approach			<p>Proceed prepared to stop at second signal. Freight trains exceeding 40 MPH must immediately reduce to 40 MPH. Passenger trains may proceed, but must be prepared to pass the next signal not exceeding 40 MPH.</p> <p>When signal governs the approach to a control point with a 40 MPH turnout speed be prepared to advance on normal or diverging route.</p> <p>When the next signal is seen to display an aspect more favorable than Diverging Approach or Approach, the requirement to proceed prepared to stop short of the second signal is no longer required.</p>
				<p>Proceed prepared to stop at second signal. Freight trains</p>

9.2.7	Approach Restricting			<p>proceed indication, the requirement to pass next signal at restricted speed no longer applies. Speed may be resumed after leading wheels of train have passed signal</p>
9.2.8	Diverging Clear Limited	 <p>Without number plate</p>		<p>Proceed on diverging route. Speed through turnout must not exceed 40 MPH</p>
9.2.9	Diverging Clear	 <p>Without number plate</p>		<p>Proceed on diverging route not exceeding prescribed speed through turnout.</p>
9.2.10	Diverging Advance Approach			<p>Proceed on diverging route not exceeding prescribed speed through turnout and be prepared to stop at second signal. Freight trains exceeding 40 MPH must immediately reduce to 40 MPH. Passenger trains may proceed, but must be prepared to pass the next signal not exceeding 40 MPH.</p> <p>When the next signal is seen to display an aspect more favorable than Diverging Approach or Approach, the requirement to proceed prepared to stop short of the second signal</p>

		 <p>Without number plate</p>		<p>is no longer required.</p> <p>When signal governs the approach to a control point with a 40 MPH turnout speed be prepared to advance on normal or diverging route.</p>
9.2.10P	<p>Diverging Advance Approach Passenger</p>	 <p>With diamond-shaped "C" plate and without number plate</p>		<p>Proceed on diverging route at prescribed speed through turnout prepared to stop at second signal. Freight trains exceeding 40 MPH must immediately reduce to 40 MPH. Passenger trains exceeding 60 MPH must immediately reduce to 60 MPH.</p> <p>When the next signal is seen to display an aspect more favorable than Diverging Approach or Approach, the requirement to proceed prepared to stop short of the second signal is no longer required.</p>
9.2.11	<p>Diverging Approach</p>			<p>Proceed on diverging route at prescribed speed through turnout prepared to stop before any part of train or engine passes the next signal. Freight trains exceeding 30 MPH must immediately reduce to 30 MPH. Passenger trains exceeding 40 MPH must immediately reduce to 40 MPH.</p> <p>When the next signal is seen to display a proceed indication, the requirement to proceed prepared to stop no longer applies. Speed</p>

		Without number plates		may be resumed after leading wheels of train have passed signal.
9.2.12	Diverging Approach Diverging	 <p>Without number plates</p>		Proceed on diverging route not exceeding prescribed speed through turnout prepared to advance on diverging route at the next signal at prescribed speed through turnout.
9.2.13	Restricting			Proceed at restricted speed, not exceeding prescribed speed through turnout when applicable.
9.2.14	Restricted Proceed			Proceed at restricted speed.

<p>9.2.15</p>	<p>Stop</p>	 <p>Without number plates</p>		<p>Stop before any part of train or engine passes the signal.</p>
<p>9.2.16</p>	<p>Diverging Approach Clear Fifty</p>	 <p>Without number plate</p>		<p>Proceed on diverging route at prescribed speed through turnout. Freight trains exceeding 50 MPH must immediately reduce to 50 MPH. Passenger trains may proceed, but must be prepared to pass the next signal not exceeding 50 MPH.</p> <p>When signal governs the approach to a control point with a 50 MPH turnout speed, be prepared to advance on diverging route.</p>
<p>9.2.17</p>	<p>Clear Restricting</p>	 <p>Lake St. Interlocking</p>		<p>Proceed at restricted speed, not exceeding 10 MPH.</p>

9.2.18	Approach Restricting	 <p>Lake St. Interlocking</p>		Proceed at restricted speed, prepared to stop.
9.2.19	Stop	 <p>Lake St. Interlocking</p>		Stop before any part of train or engine passes the signal.

Rule Updated Date

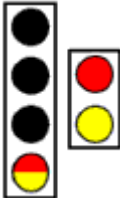

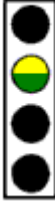
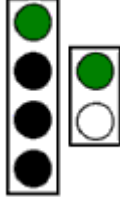
May 2, 2016

[^Top](#)

ITEM 20: Automatic Cab Signals

- [Item 20: Automatic Cab Signals](#)

Item 20: Automatic Cab Signals

RULE	NAME	ASPECT	INDICATIONS
9.3.1	Restricting		Proceed at restricted speed.
9.3.2	Approach		Proceed prepared to stop before any part of train or engine passes the next signal. Freight trains exceeding 30 MPH must immediately reduce to 30 MPH. Passenger trains exceeding 40 MPH must immediately reduce to 40 MPH.
9.3.3	Advance Approach		Proceed prepared to stop at second signal. Freight trains exceeding 40 MPH must immediately reduce to 40 MPH. Passenger trains may proceed, but must be prepared to pass the next signal not exceeding 40 MPH.
9.3.4	Clear		Proceed.

Rule Updated Date


May 2, 2016

[^Top](#)

ITEM 21: Slide Warning Indicator

- [Item 21: Slide Warning Indicator](#)

Item 21: Slide Warning Indicator

RULE	NAME	ASPECT	INDICATOR
9.4.1	Slide Warning	SLIDE WARNING INDICATOR (To apply to trains governed by fixed signal with which connected).  (Illuminated)	When signal requires movement at restricted speed to next signal. Keep close lookout for rocks or other obstructions, broken, bent and damaged rail.

Rule Updated Date






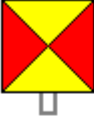
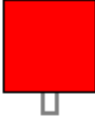
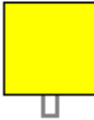

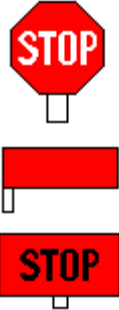
May 2, 2016

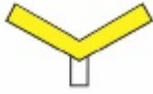
[^Top](#)

ITEM 22: Roadway Signs

- [Item 22: Roadway Signs](#)

Item 22: Roadway Signs

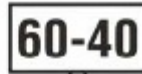
<div style="display: flex; justify-content: space-around; align-items: center;">   </div> <p>FOR CROSSINGS* FOR TUNNELS, ETC.</p> <p>At locations where crossing signs are displayed, sound whistle as required by Rule 5.8.2 (7) regardless of the type of crossing train is approaching.</p> <p>* If a number sign is attached to the crossing sign, it shows the number of crossings for which the whistle signal is required.</p>	<div style="text-align: center;">  </div> <p>Crossings where quiet zones are in effect.</p> <p>If a number sign is attached to this crossing sign, it shows the number of successive crossings for which the sign applies.</p>	<div style="text-align: center;">  <p>DERAIL SIGN</p> </div> <hr/> <div style="text-align: center;">  <p>CROSSING WARNING DEVICE MALFUNCTION</p> <p>Stop at the sign. Rule 6.32.2 A - Procedure 1 applies at the crossing</p> </div>
<div style="display: grid; grid-template-columns: 1fr 1fr; gap: 20px;"> <div style="text-align: center;">  <p>YELLOW-RED FLAG PROTECTING MEN OR EQUIPMENT</p> </div> <div style="text-align: center;">  <p>RED FLAG</p> </div> <div style="text-align: center;">  <p>YELLOW FLAG</p> </div> <div style="text-align: center;">  <p>GREEN FLAG</p> </div> </div>		<div style="text-align: center;">  <p>STOP SIGNS</p> </div>



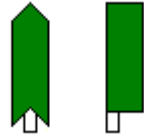
YARD LIMIT SIGN



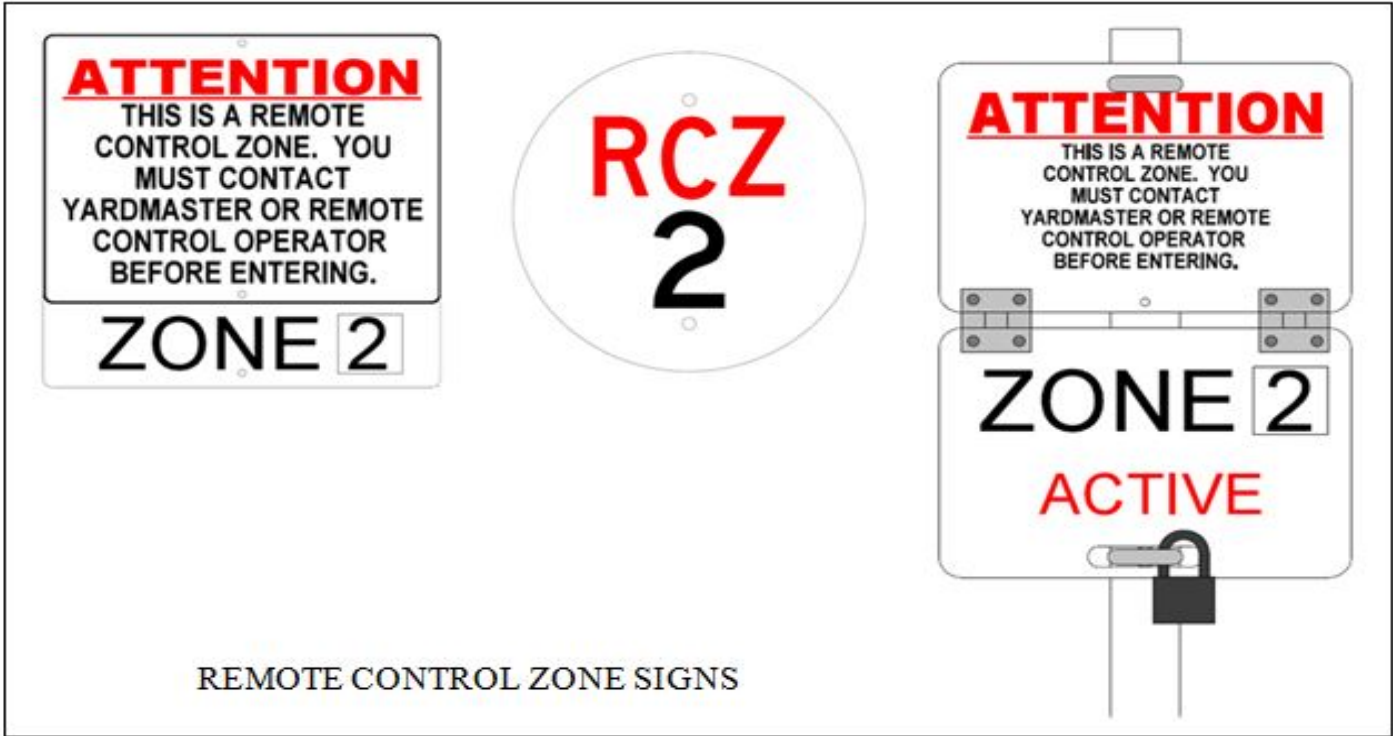
RESTRICTED LIMIT SIGNS



PERMANENT SPEED
RESTRICTION SIGN



PERMANENT RESUME
SPEED SIGN



HIGH THREAT URBAN AREA (HTUA) SIGNS	END OF TRACK SIGN	SWITCH FLAG
<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>BEGIN HTUA</p> </div> <div style="text-align: center;">  <p>END HTUA</p> </div> </div>		 <p>Switch or Derail Lined Improperly</p>

Rule Updated Date

May 2, 2016

[^Top](#)

ITEM 23: Security Alert Instructions

- [Item 23: Security Alert Instructions](#)

Item 23: Security Alert Instructions

To protect our employees, the general public and our railroad from terrorist acts, Security Alert Levels 1 - 4 have been established. As the Alert Level increases, the actions to be taken by our crewmembers also increases. The actions required by crewmembers include all actions for the current level, as well as those for the lower Alert Levels. For example, if Alert Level 3 is in effect, actions required in Alert Levels 1, 2 and 3 are required.

Definitions:

Alert Train: Any train that is handling one or more hazardous materials in class 1.1, 1.2, 2.1, 2.3, anhydrous ammonia, any hazardous material shipment that requires the phrase "Poison or Toxic Inhalation Hazard" on the shipping paper, or otherwise identified. These shipments are identified on the train consist as "ALERT SHIPMENT" or "RSSM SHIPMENT".

Alert Level: The level of threat to security of rail operations.

Unusual Item: An attachment to railroad rolling stock that is not a part of the normal rail equipment, or a suspicious package or container located on or near railroad property.

Unusual Stops: As used in Level 3, examples of this include:

- Any radio transmission from an unknown person requesting the train to stop.
- Any unknown person attempting to stop the train by hand signals.
- A dark signal or signals that are improperly displayed.
- Stop or Stop and Proceed signals at other than meeting points.
- Unattended fusee.
- Detectors that are out of service without a track bulletin.
- Emergency vehicles fouling the track without prior notification from the dispatcher.

The following are the minimum requirements for train and engine crews, based on the various Alert Levels. Each level has additional requirements.

Alert Level 1 (The "new normal" day-to-day operations):

- Remain vigilant for suspicious activities, trespassers, or vehicles (abandoned or occupied) on or near railroad property. Report suspicious activities to the train dispatcher, or to RMCC (1-888-UPRR-COP / 1-888-877-7267).
- Keep required employee identification immediately available at all times.

Alert Level 2 (Heightened security awareness):

- When inspecting train, increase vigilance and scrutiny of railcars, looking for unusual items.

Alert Level 3 (A credible threat of attack on the U.S. or railroad industry):

- Train dispatcher will communicate with crews on Alert trains at least once every 60 minutes to determine location and status in areas where train tracking through the train dispatch system is not available, such as in TWC or Rule 9.14 territory.
- Immediately notify the train dispatcher of any unusual stops.

Alert Level 4 (A confirmed threat of attack against the U.S. railroad industry or actual attack in the U.S.):

- Crew members must identify themselves by employee identification badge when picking up outbound locomotives at service facilities.
- Meeting points with passenger trains will be established and communicated to crews by the train dispatcher.
- Train inspections from the ground may be eliminated on instruction of the train dispatcher.
- Do not leave unattended and unsecured locomotives on line without the authority of the train dispatcher.
- Alert trains will not be allowed to operate in a tunnel at the same time with a passenger train.

When Security Alert level is above Level 1, when crews complete switching operations at all plants and facilities equipped with gates, the gates must be immediately shut and locked to maintain security for those facilities. Local railroad instructions may provide relief for facilities not requiring that degree of security.

When Security Alert levels are above Level 2, crews must not provide any shipping information. Instruct customers to contact the NCSC for inquiries.

Other requirements may be imposed by local management or the train dispatcher, as necessary.

Rule Updated Date

May 2, 2016

[^Top](#)

[Union Pacific Rules](#)

[System Special Instructions](#)

ITEM 24: California Proposition 65 Warning

- [Item 24: California Proposition 65 Warning](#)

Item 24: California Proposition 65 Warning

Locomotives, diesel equipment, and work areas in the State of California contain chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

California Proposition 65 requires that companies warn employees of exposures to chemicals which are "known to the State of California" to cause cancer, birth defects, or other reproductive harm. Over 500 chemicals are included in California's list, including alcoholic beverages, aspirin, caffeic acid (contained in coffee), diesel engine exhaust, gasoline engine exhaust, lead, oral contraceptives, silica (sand), tobacco smoke, and unleaded gasoline (wholly vaporized).

Any questions about Proposition 65 may be addressed to the Union Pacific Values Line at 1-800-998-2000.

Rule Updated Date

May 2, 2016

[^Top](#)

EXPLAIN: Explanation of Characters

- [EXPLAIN: EXPLANATION OF CHARACTERS](#)

EXPLAIN: EXPLANATION OF CHARACTERS

SYMBOL REPRESENTS	
ABS	AUTOMATIC BLOCK SIGNAL
ACS	AUTOMATED CAB SIGNAL
ATC	AUTOMATIC TRAIN CONTROL
ATS	AUTOMATIC TRAIN STOP
CTC	CENTRALIZED TRAFFIC CONTROL
RL	RESTRICTED LIMITS
TWC	TRACK WARRANT CONTROL
DT	DOUBLE TRACK
#MT	MULTIPLE MAIN TRACK – # (number MT's)
!	SIDING WITH ENTERING SIGNAL ALLOWING ASPECT MORE FAVORABLE THAN LUNAR
(A)	AUTOMATIC INTERLOCKING
B	BASE RADIO STATION
D	DRAW BRIDGE
(G)	GATE-NORMAL POSITION AGAINST CONFLICTING ROUTE
G	GATE-NORMAL POSITION AGAINST THIS SUBDIVISION
(M)	MANUAL INTERLOCKING
(S)	STOP SIGN
T	TURNING FACILITY
(X)	RAILROAD CROSSING AT GRADE
X	CROSSOVER BETWEEN MAIN TRACKS – DUAL CONTROL SWITCHES
Y	YARD LIMITS
(Z)	MANUAL INTERLOCKING WITH RELEASE BOX AND A M/W KEY RELEASE IF EQUIPPED
(11-2)	SPECIAL INSTRUCTIONS APPLY ITEM 11 - 2 SWITCH MACHINES
(11-3)	SPECIAL INSTRUCTIONS APPLY ITEM 11 - 3 SWITCH MACHINES

N	NORTHWARD
S	SOUTHWARD
E	EASTWARD
W	WESTWARD
C	CENTER
+	HEAD – END RESTRICTION ONLY
(R)	REDUCE / RESUME SPEED SIGNS AT OTHER THAN PRESCRIBED LOCATION
(#)	HOT BOX AND DRAGGING EQUIPMENT DETECTOR STATION EQUIPPED WITH RADIO TRANSMITTED VERBAL INDICATOR
#	HOT BOX DETECTOR STATION EQUIPPED WITH RADIO TRANSMITTED VERBAL INDICATOR
@	HOT BOX AND DRAGGING EQUIPMENT DETECTOR STATION EQUIPPED WITH RADIO TRANSMITTED VERBAL INDICATOR – TALK ON DEFECT ONLY WITH HOLD OR STOP SIGNALS
\$	HOT BOX DETECTOR STATION EQUIPPED WITH RADIO TRANSMITTED VERBAL INDICATOR – TALK ON DEFECT ONLY
%	DRAGGING EQUIPMENT DETECTORS WITH RADIO TRANSMITTED VERBAL INDICATOR – TALK ON DEFECT ONLY
&	HIGH WIDE SHIFTED LOAD AND DRAGGING EQUIPMENT DETECTOR EQUIPPED WITH RADIO TRANSMITTED VERBAL INDICATOR
(@)	WHEEL IMPACT DETECTORS EQUIPPED WITH TRANSMITTED VERBAL DEFECT INDICATIONS - TALK ON DEFECT ONLY
(&)	HIGH WIDE SHIFTED LOAD AND DRAGGING EQUIPMENT DETECTOR EQUIPPED - TALK ON DEFECT ONLY
(*)	WHEEL DOWN INDICATOR - TALK ON DEFECT ONLY

Rule Updated Date

May 1, 2014

[^Top](#)

[Union Pacific Rules](#)
[System Special Instructions](#)

OTHERS: Other Available Reference Material

- [OTHERS: Other Available Reference Material](#)

OTHERS: Other Available Reference Material

OTHER AVAILABLE REFERENCE MATERIAL								
Area #	Area Name	Order #	Area #	Area Name	Order #	Area #	Area Name	Order #
1	Portland	PB-27020	9	Kansas City	PB-27028	17	Houston	PB-27036
2	Salt Lake City	PB-27021	10	Salina	PB-27029	18	San Antonio	PB-27037
3	Roseville	PB-27022	11	Iowa	PB-27030	19	Livonia	PB-27039
4	Los Angeles	PB-27023	12	Twin Cities	PB-27031	0	All Area 3 Hole Singles	PB-27038
5	Sunset	PB-27024	13	Chicago	PB-27032	0	3" Binder	PB-27019
6	Denver	PB-27025	14	St. Louis	PB-27033	0	Area Tabs (19 Each)	PB-27018
7	North Platte	PB-27026	15	North Little Rock	PB-27034	0	System Special Instructions	PB-27015
8	Council Bluffs	PB-27027	16	Dallas / Ft. Worth	PB-27035	99	UPRR TRAINING TT	PB-27099

Rule Updated Date

April 1, 2015

[^Top](#)

[Union Pacific Rules](#)

[Instructions for Handling Hazardous Materials](#)

INTRO: Introduction

- [1.: Policy](#)
- [2.: Questions](#)
- [3.: Effective Date](#)
- [4.: Additions and Corrections](#)

1.: Policy

In addition to complying with other operating rules, Union Pacific Railroad (UPRR) employees will transport hazardous materials in compliance with UPRR's **Instructions for Handling Hazardous Materials** Form 8620 (PB-20800).

These instructions describe how to perform your duties so that both you and UPRR comply with the **Hazardous Materials Regulations** of the United States Department of Transportation (DOT). These instructions are consistent with the **United States Hazardous Materials Instructions for Rail** written jointly by the major railroads and the Association of American Railroads (AAR), in conjunction with DOT.

UPRR employees who inspect or transport hazardous materials by rail must have either a printed or UPRR approved electronic version of, and comply with, the instructions in this document when:

- working on UPRR property; *or*
- operating over a foreign road unless that railroad's requirements are more restrictive.

Employees (Conductors) who transport hazardous materials must also have a copy of the current **Emergency Response Guidebook** (ERG) readily available while on duty.

Rule Updated Date

July 2, 2013

[^Top](#)

2.: Questions

For technical interpretation of the regulatory aspects of these instructions, call Hazardous Materials Management at 8-544-3313 (402-544-3313), 8-544-4981 (402-544-4981). If no one answers, please leave a message:

- State your question.
- Give your name.
- Give a callback number or mailing address where someone can reach you with an answer to your question.

Rule Updated Date

July 2, 2013

[^Top](#)

3.: Effective Date

The instructions in this document become effective at 0900 CDT, Tuesday, July 2, 2013. They replace all previous rules and instructions not consistent with this document.

Rule Updated Date

July 2, 2013

[^Top](#)

4.: Additions and Corrections

Changes to the instructions in this document will be made through general orders, the UPRR **System Special Instructions**, and applicable timetable special instructions.

L. M. Fritz

Executive Vice President - Operations

Rule Updated Date

July 2, 2013

[^Top](#)

[Union Pacific Rules](#)

[Instructions for Handling Hazardous Materials](#)

TOC: Table of Contents

- [TOC: Table of Contents](#)

TOC: Table of Contents

INTRODUCTION	
1. Policy	1
2. Questions	1
3. Effective Date	1
4. Additions and Corrections	1
Section I. GENERAL INFORMATION	
1. Definition of Hazardous Materials	4
• <i>Table 1. Hazard Classes and Divisions</i>	5
2. General DOT Requirements	4
3. Expediting Hazardous Material Shipments	4
• <i>Table 2. Time-Sensitive Shipments</i>	6
4. Car Status - "HZ"	4
5. Exceptions for U.S. Government Material	6
6. International Shipments	6
7. Positive Hand-off of RSSM Shipments	6
Section II. REQUIRED DOCUMENTATION	
1. General Documentation Requirements	8
2. Checking for Acceptable Shipping Papers	8
• <i>Table 3. Acceptable Shipping Papers</i>	9
3. Reviewing Shipping Description Entries	10
• <i>Figure 1. Shipping Description Entries</i>	11
4. Checking for Hazardous Material Response Information	14
• <i>Table 4. Acceptable Hazardous Material Response Information</i>	14
5. Checking for Position-in-Train Document	14
6. Handling Hazardous Waste Shipping Papers and Manifests	15
7. Handling Requests for Shipping Papers or Hazardous Material Response Information	15

Section III. INSPECTION	
1. General Requirements	16
2. Inspection Procedures	16
a. Inspecting All Hazardous Material Shipments	17
b. Inspecting Placarded/Marked Tank Cars	18
c. Inspecting Placarded/Marked Gondola Cars	18
d. Inspecting Placarded/Marked Hopper Cars	18
e. Inspecting Shipments Placarded EXPLOSIVES 1.1 or 1.2	18
• <i>Figure 2. Text of Car Certificate</i>	19
f. Inspecting Placarded/Marked Intermodal Shipments	19
3. Handling Defects	20
Section IV. PLACARDS AND MARKINGS	
1. General Requirement	21
2. Placard Requirements	21
• <i>Figure 3. Types of Placards</i>	21
• <i>Figure 4. Placard Chart</i>	24-25
3. Inspecting for Placards	26
4. Inspecting for Markings	28
a. Inspecting for Identification Number Marks	28
• <i>Figure 5. Identification Numbers</i>	28
b. Inspecting for Marine Pollutant Marks	29
• <i>Figure 6. Marine Pollutant Mark</i>	29
c. Inspecting for Hot Marks	30
• <i>Figure 7. Hot Mark</i>	30
d. Inspecting for Inhalation Hazard Marks	31
e. Inspecting for Commodity Names	31
• <i>Table 5. List of Materials that Require Commodity Names on Tank Cars</i>	32
f. Inspecting for Tank Car Qualification Dates	33
• <i>Figure 8. Tank Car Qualification Stencil</i>	33
g. Inspecting for Non-Odorized Marks	33
h. Inspecting for Fumigant Marks	34
• <i>Figure 9. Fumigant Mark</i>	34
Section V. SWITCHING	
1. General Requirement	35

2. Safety	35
3. When to Use the Switching Chart	35
4. How to Use the Switching Chart	36
• <i>Figure 10. Switching Chart</i>	37-38
Section VI. TRAIN PLACEMENT	
1. General Requirement	39
2. When to Use the Placement in Train Chart	39
3. How to Use the Placement in Train Chart	39
• <i>Figure 11. Placard Endorsement Conversion Chart</i>	39
• <i>Figure 12. Placement in Train Chart</i>	40-41
Section VII. TRAIN OPERATIONS	
1. General Requirement	42
2. Car Status - "HZ"	42
3. Operating Key Trains	42
4. Helper Units	43
5. Movements on Excepted Track	43
Section VIII. EMERGENCY RESPONSE	
1. General Requirement	44
2. Actions to Take When a Fire or Vapor Cloud is Visible	44
3. Action to Take When No Fire or Vapor Cloud is Visible	45
4. Cooperating with Local Emergency Responders	46
5. Handling Leaking Hazardous Material Shipments	46
APPENDIX	
Special Permit Authorization – SP-E9271	47
GLOSSARY	
	50

Rule Updated Date

July 2, 2013

[^Top](#)

[Union Pacific Rules](#)

Instructions for Handling Hazardous Materials

Section I: General Information

- [1.: Definition of Hazardous Materials](#)
- [2.: General DOT Requirements](#)
- [3.: Expediting Hazardous Material Shipments](#)
- [4.: Car Status - "HZ"](#)
- [5.: Exceptions for U.S. Government Material](#)
- [6.: International Shipments](#)
- [7.: Making and Documenting a Positive Hand-off of RSSM](#)

1.: Definition of Hazardous Materials

- a. Hazardous materials are defined as "a substance or material which the Secretary of Transportation has determined to be capable of posing an unreasonable risk to health, safety, and property when transported in commerce."
- b. The term "hazardous material" includes hazardous substances, hazardous wastes, elevated temperature materials (HOT or MOLTEN), and marine pollutants.
- c. Hazardous materials are classified according to their chemical and/or physical properties. There are nine numbered classes, some of which are further divided into divisions, and there are two worded classes (see Table 1, page 5). A hazardous material is assigned to only one class, even if it meets the definition of more than one hazard class. In this document, "**class**" refers to both "class" and "division."

Rule Updated Date

July 2, 2013

[^Top](#)

2.: General DOT Requirements

- a. No person may offer, accept, or transport a hazardous material in commerce unless that material is properly classed, described, packaged, marked, labeled, and placarded and is in proper condition for transportation according to DOT and/or international regulations.
- b. No person may transport a hazardous material in commerce unless the hazardous material is handled and transported according to DOT regulations.

Rule Updated Date

July 2, 2013

[^Top](#)

3.: Expediting Hazardous Material Shipments

Loaded hazardous material shipments **and** both loaded and residue/empty time-sensitive hazardous material shipments (see Table 2, page 6) must be forwarded **either**:

- a. within 48 hours (excluding Saturdays, Sundays, and holidays) after accepting them at the shipper's facility or receiving them in any yard, intermediate (transfer) station, or interchange point; **or**
- b. when only bi-weekly or weekly service is performed, on the first available train toward the destination.

Note: The requirements in 3a and 3b above do not apply to shipments that are constructively placed or set out for repairs.

Table 1

Hazard Classes and Divisions

Numbered Classes and Divisions

1 - Explosives

- 1.1 – Explosive with mass explosion hazard
- 1.2 – Explosive with projection hazard
- 1.3 – Explosive with predominantly fire hazard
- 1.4 – Explosive with no significant blast hazard
- 1.5 – Very insensitive explosive; blasting agent
- 1.6 – Extremely insensitive detonating substance

2 - Gases

- 2.1 – Flammable gas
- 2.2 – Nonflammable, nonpoisonous (nontoxic) compressed gas
- 2.3 – Gas poisonous (toxic) by inhalation

3 - Flammable Liquids

4 - Flammable Solids and Reactive Solids/Liquids

- 4.1 – Flammable solid
- 4.2 – Spontaneously combustible material
- 4.3 – Dangerous when wet material

5 - Oxidizers and Organic Peroxides

- 5.1 – Oxidizer
- 5.2 – Organic peroxide

6 - Poisonous (Toxic) Materials and Infectious Substances

- 6.1 – Poisonous (toxic) material
- 6.2 – Infectious substance

7 - Radioactive Materials

8 - Corrosive Materials

9 - Miscellaneous Hazardous Materials

Worded Classes

Combustible Liquids Liquids (regulated in bulk packaging; also regulated in non-bulk packaging if a hazardous substance, hazardous waste, or marine pollutant)

ORM-D (Other Regulated Materials-D) - (exempt from placarding and labeling requirements in rail transportation)

Table 2

Time-Sensitive Hazardous Materials Shipments

20 Day

- (1) Ethylene, refrigerated liquid – UN 1038
- (2) Hydrogen, refrigerated liquid – UN 1966
- (3) Chloroprene, stabilized – UN 1991
- (4) Flammable Liquid, N.O.S. (Methyl Methacrylate Monomer, uninhibited) – UN 1993
- (5) Hydrogen chloride, refrigerated liquid – UN 2186
- (6) Vinyl Fluoride, stabilized – UN 1860

30 day

- (1) Flammable Liquid, N.O.S (Recycled styrene) – UN 1993
 - (2) Styrene monomer, stabilized – UN 2055
-

Rule Updated Date

July 2, 2013

[^Top](#)

4.: Car Status - "HZ"

A hazardous material shipment that is placed in "HZ" status is a shipment that no longer meets DOT hazardous material regulation compliance requirements. **Shipments in the "HZ" status must not continue to move in transportation.** Shipments in "HZ" status can only be released for continued transportation by a UP Hazardous Materials Manager.

Rule Updated Date

July 2, 2013

[^Top](#)

5.: Exceptions for U.S. Government Material

- a. Department of Energy (DOE) and Department of Defense (DOD) shipments made for the purpose of national security **and** accompanied by escorts (personnel specifically designated by or under the authority of DOD or DOE) are **not** subject to DOT regulations or to the instructions in this document.
- b. Escorts must travel in a separate transport vehicle from the rail car carrying the hazardous material.
- c. Escorts must have, in their possession, a document certifying that the shipment is for the purpose of national security.

Rule Updated Date

July 2, 2013

[^Top](#)

6.: International Shipments

International shipments of hazardous material (including shipments to and from Mexico and Canada), moving with proper international documents and international placards, may be transported in the United States (U.S.):

- a. From a U.S. port of entry to their U.S. destination;
- b. When moving through the U.S. to a foreign destination;
- c. From a U.S. point of origin to the international port of entry, when the cars are either:
 - (1) Returning residue/empty shipments; *or*
 - (2) Regulated internationally but not in the U.S.

Rule Updated Date

July 2, 2013

[^Top](#)

7.: Making and Documenting a Positive Hand-off of RSSM

- a. A positive hand-off of a RSSM shipment must be made when:
 1. Receiving a RSSM shipment from the shipper at any location;
 2. Receiving/delivering a RSSM shipment in Interchange; or
 3. Delivering a RSSM shipment within a High Threat Urban Area (HTUA).
- b. A positive hand-off must be:
 1. **Attended** by an employee or representative of the railroad and an employee or representative of the shipper/receiver or interchanging railroad.

Note: If entrance to the shipper's or receiver's facility is controlled from a security room inside the plant, then consider person in the security room as being "present" and the rail car being attended.

1. Documented by the railroad employee or representative attending the positive hand-off by recording the:
 - (a) Car initial and number;
 - (b) First and last name of the individual who attended the transfer;
 - (c) Location of the transfer; and
 - (d) Date and time of the transfer on the work order or other appropriate documents.

Note: When accepting/receiving or delivering the RSSM shipment, provide your name to the shipper/receiver or interchanging railroad if requested.

- c. If the representative of the shipper/receiver is not present or refuses to provide the required information:
 - 1. Notify the train dispatcher or your immediate supervisor, as appropriate;
 - 2. Do not pull or spot the RSSM shipment;
 - 3. Retain possession of the non-delivered RSSM shipment until completion of assignment; and
 - 4. Report the non-delivered shipment as work not done on the work order.
- d. If the representative of the interchanging railroad is not present at the interchange or refuses to provide the required information, contact the train dispatcher or your immediate supervisor, as appropriate, for instructions.
- e. Notify the train dispatcher immediately when loaded RSSM shipment is:
 - 1. Set out as bad order at other than the origin station, whether through-freight or yard/local jobs; or
 - 2. Not handled in accordance with work order instructions (scheduled work events) when traveling in a train of type "THRU".

Rule Updated Date

July 2, 2013

[^Top](#)

[Union Pacific Rules](#)

Instructions for Handling Hazardous Materials

Section II: Required Documentation

- [1.: General Documentation Requirements](#)
- [2.: Checking for Acceptable Shipping Papers](#)
- [3.: Reviewing Shipping Description Entries](#)
- [4.: Checking for Hazardous Material Response Information](#)
- [5.: Checking for Position-in-Train Document](#)
- [6.: Handling Hazardous Waste Shipping Papers and Manifests](#)
- [7.: Handling Requests for Shipping Papers or Hazardous Material Response Information](#)

1.: General Documentation Requirements

The following documents are required when accepting and/or transporting a hazardous material shipment by rail:

- a. Acceptable **shipping papers** (see item 2 below and Table 3 on page 9);
- b. Acceptable **emergency response information** (see item 4 and Table 4, page 14); and
- c. Current **position-in-train document** (see item 5, page 14).

Notes:

1. This documentation provides railroad and emergency response personnel with accurate information about each hazardous material being transported, including its location in a train.
2. Update all documentation as soon as work assignments are completed. Be sure to keep all current hazardous material documents neat, orderly, and available on or near the train in case of an emergency or for inspection. Properly discard superseded documents to eliminate the possibility of confusing or inconsistent information.

Rule Updated Date

July 2, 2013

[^Top](#)

2.: Checking for Acceptable Shipping Papers

- a. A member of the crew must have in their possession, a paper copy of an **acceptable shipping paper** (see Table 3, page 9) with the required shipping description entries (see item 3, pages 10-13) for each hazardous material in the shipment, whether loaded or residue/empty, when:
 - (1) **accepting/pulling** a hazardous material shipment from a customer's facility, interchange point, or other location (pick-up point);
 - (2) **switching** a hazardous material shipment **outside** a yard;
Exception: When moving a hazardous material shipment within a yard or at a customer's facility, interchange point, or other location, crews are not required to have shipping papers in their possession.

- (3) **moving** a hazardous material shipment in a train;
- (4) **setting out** a hazardous material shipment at a customer's facility, interchange point, or other set out point.
Exception: Although they may remain placarded and/or marked, **residue/empty** tank cars of Class 9 and Elevated Temperature Materials do **not** require hazardous material shipping papers and hazardous material response information.

Table 3
Acceptable Shipping Papers
<p>Any one of the following documents is acceptable as a shipping paper for a hazardous material shipment. The document must include the required shipping description entries and be legible and printed (manually or mechanically) in English. (see item 3, pages 10-13).</p> <ol style="list-style-type: none"> 1. Railroad-produced documents — for example: Train Lists, waybills, work orders, or other similar documents; 2. Connecting carrier's documents; 3. Hand-printed document (printed, not cursive letters). <i>Note:</i> This hand-printed document is not acceptable when pulling a hazardous material shipment at a customer's facility, interchange point, or other location; however, a hand-printed document is acceptable to correct a problem found during transportation (see item 2c, page 10); <i>or</i> 4. A United Parcel Service (UPS) produced document or a copy thereof.

- b. **When accepting/pulling a shipment** from a customer's facility, interchange point, or other location (pick-up point) **and** the shipping papers are not available/present:
 - (1) Do **not** accept/pull any shipment unless the car is listed on your work order **and**, if that shipment is a hazardous material, the proper shipping description entries are listed after the "HAZARDOUS MATERIALS RESPONSE INFORMATION" section on the Train List under "ANTICIPATED PICKUP AT . . .".
Note: When accepting/picking up an interchange train outside of a yard and a shipment without acceptable shipping papers is found, move the train to the first location where the shipment(s) without shipping papers can be set out and then set out the shipment(s) without shipping papers. If entries are available from the train dispatcher, follow the instructions under item 2c on page 10.
 - (2) Leave the first shipment **not** listed on your work order **and all** following cars in that cut behind at the customer's facility or interchange point within a yard.
Note: This instruction does **not** apply to intra-plant switching or to cars left off-spot by UPRR crews. It applies **only** to the cut of cars listed on the work order to be pulled.
- c. **During transportation** when the shipping papers are not available, contact the train dispatcher or your supervisor, and request the shipping papers.
 - (1) If the actual shipping papers **cannot** be provided, but the required entries (see item 3, pages 10-13) are available, legibly print the entries on a sheet of paper or on your Train List and keep them available during transportation.
 - (2) If, after checking, the shipping description entries are still not available, move the train to the first location where the shipment(s) without shipping papers can be set out and then set out the shipment(s) without shipping papers.

Rule Updated Date

July 2, 2013

[^Top](#)

3.: Reviewing Shipping Description Entries

- a. Review the shipping description entries for each hazardous material on the shipping papers and make sure that the following entries (see items a-g in the boxes on pages 11-13) are present. (Figure 1 on page 11 shows the railroad standard format for displaying shipping description entries.)
- b. **When accepting/pulling a shipment** from a customer's facility, interchange point, or other location **and** all required shipping description entries are not present, do **not** accept/pull the shipment. Leave the first shipment without the required shipping description entries and **all following cars in that cut** behind at the customer's facility or interchange point (see Note under item 2b(2) on previous page).
- c. **During transportation** when all required hazardous material shipping description entries are not present on the shipping paper, contact the train dispatcher or your supervisor and request the required shipping description entries.
 - (1) If the required shipping description entries (see item 3, pages 10-13) are available, legibly print the entries on a sheet of paper or on your Train List and keep them available during transportation.
 - (2) If, after checking, the shipping description entries are still not available, move the train to the first location where the shipment(s) without shipping papers displaying the appropriate shipping description entries can be set out and then set out the shipment(s) without shipping papers displaying the appropriate shipping description entries.

Figure 1

Shipping Description Entries

Vertical Format

GATX 12345 ^(a)	1/TC ^(b)
***** ^(h13)	UN1830 ^(e)
* DANGEROUS *	SULFURIC ACID ^(c)
*****	g ^(d)
EMERGENCY CONTACT:	PG II ^(f)
800-424-9300 ^(g)	RQ (SULFURIC ACID) ^(h3)
	HAZMAT STCC = 4930040 ^(h11)

Notes: Items^{(a)-(g)} are required entries for the basic hazardous material description. Item^(h) refers to additional entries that may appear. Typically, items^{(b)-(f)} are in the sequence shown; however, certain items (technical name and subsidiary hazard class) may appear in parentheses between items^{(b)-(f)}.

a. Reporting Marks (Initials) and Number

The shipping paper for a rail car, freight container, transport vehicle, or portable tank must include the reporting mark and number **only** when the reporting mark and number are displayed on the rail car, freight container, transport vehicle, or portable tank.

b. Total Quantity Notation

- (1) For empty packagings, bulk packagings, or cylinders of Class 2 materials, an indication of the total quantity must be shown. Some abbreviations are acceptable; for example, "1/TC" (1 tank car), "1/CL" (1 car load), or "10 CYL" (10 cylinders).
- (2) For non-bulk packaging, the total quantity is given by both the:
 - (a) weight or volume (including the unit of measure); for example, "100 LB", "55 GAL", "5 KG", or "208 L"; and
 - (b) number and type of package; for example, "12 drums", "12 drums (UN 1A1)", "15 4G", or "UN 3H1JERRICAN".
- (3) For Class 1 materials, the quantity must be the net explosive mass.

c. Proper Shipping Name

- (1) The proper shipping name of the hazardous material may be one or more words, such as "CHLORINE" or "SULFURIC ACID". The proper shipping name may include a number that indicates the concentration of the material.
- (2) When a N.O.S. (Not Otherwise Specified) shipping name appears, the technical name of the product may appear in parentheses immediately after the N.O.S. shipping name; for example, "CORROSIVE LIQUID, N.O.S. (CAPRYL CHLORIDE)".
- (3) Residue/empty shipments in tank cars will begin with "RESIDUE: LAST CONTAINED," followed by the proper shipping name.
- (4) For waste shipments, the word "WASTE" will precede, or be part of, the proper shipping name of the material.

d. Hazard Class – numeric or worded (See list of hazard classes and divisions in Table 1, page 5.)

- (1) For certain hazardous materials, a subsidiary hazard class will appear in parentheses after the primary class. For example, Ethylene Oxide is listed as "2.3 (2.1)".
- (2) The worded hazard class need not be repeated for **COMBUSTIBLE LIQUIDS, N.O.S.** shipments.
- (3) Classes 1.1, 1.2, 1.3, 1.4, 1.5, and 1.6 may show a compatibility group letter after the class (for example, **1.1A**). The letter has no significance in rail transportation.

e. Identification Number

The 4-digit identification number must include the prefix "UN" (United Nations) or "NA" (North America) as appropriate.

Exception: Identification numbers are not required when the proper shipping name is "gas generator assemblies for aircraft."

f. Packing Group

The packing group must appear on the shipping papers in Roman numerals ("I", "II", or "III"). The packing group may be preceded by the letters "PG" ("PG I", "PG II", or "PG III").

Exception: Classes 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 2.1, 2.2, 2.3, 4.1 (self-reactive liquids or solids, types B-F), 5.2, 6.2, 7, and ORM-D do not require the packing group notation.

g. Emergency Response Telephone Number

Shipping papers for hazardous material shipments must show a 24-hour emergency response telephone number. This telephone number must include the area code or international access code.

Exception: Emergency response telephone numbers are **not** required when the hazardous material is shown as a "LIMITED QUANTITY", "LTD QTY", or its proper shipping name is:

- (1) battery powered - equipment or vehicle;
- (2) carbon dioxide, solid or dry ice;

- (3) castor - bean, meal, flake, or pomace;
- (4) consumer commodity;
- (5) engines, internal combustion;
- (6) fish - meal or scrap, stabilized;
- (7) fumigated unit;
- (8) refrigerating machine;
- (9) wheelchair, electric;
- (10) vehicle, flammable gas powered or vehicle, flammable liquid powered.

h. Additional Description Entries

Some hazardous material shipping descriptions also may require one or more of the following entries:

- (1) "Residue: Last Contained ..." (for packages emptied to the maximum extent possible);
- (2) "HOT" notation added before a proper shipping name for elevated temperature materials;
- (3) "RQ" for Reportable Quantity notation of a hazardous substance;
- (4) "MARINE POLLUTANT" notation;
- (5) "POISON" or "TOXIC" notation;
- (6) "POISON(TOXIC)-INHALATION HAZARD (PIH or TIH)" or "INHALATION HAZARD (IH)" notation;
- (7) Hazard Zone notation ("ZONE A," "ZONE B," "ZONE C," or "ZONE D");
- (8) "LIMITED QUANTITY" or "LTD QTY" notation;
- (9) FRA Movement Approval (for example, "FRA 0109123"), DOT Special Permit (for example, "DOT-SP 9271", Special Approval Number (for example, "SA 920403"), or Competent Authority Number (for example, "CA 9701001");
- (10) DOT-113 notation - "DOT-113, Do Not Hump or Cut-Off in Motion";
- (11) Hazardous Materials Response Code - STCC numbers "48xxxxx" or "49xxxxx";
- (12) certain shipments described using Canadian regulations may contain both an Emergency Response Plan number and its activation telephone number [for example, "ERP-2-1008 (800-555-5555) // SPECIAL COMMODITY"]^^^^;
- (13) box of asterisks with or without wording (not required by DOT, but may appear on railroad-produced documents);
- (14) Shipper's Certification (see Glossary, page 54);
- (15) additional radioactive material entries;
- (16) name and address of the place of business in Canada of the consignor/consignee;
- (17) additional hazardous waste shipping description
- (18) for international shipments, the following additional information may be present - "DANGEROUS GOODS IN EXCEPTED QUANTITIES" with an indication of the number of packages.

Rule Updated Date

July 2, 2013

[^Top](#)

4.: Checking for Hazardous Material Response Information

- a. Before accepting and transporting a hazardous material shipment, make sure a copy of the hazardous material response information is available for the shipment (see Table 4 below).
Note: Hazardous material response information is not required to be in the switch crew's possession when moving a hazardous material shipment within a yard or at a customer's facility.
- b. When hazardous material response information is **not** available, do **not** accept or transport the car.

Table 4

Acceptable Hazardous Material Response Information

Either of the following documents is acceptable as hazardous material response information:

- a. *Emergency Response Guidebook* (ERG).
- b. Hazardous material response information printed as part of the Train List, /RD Track List, or TTH inquiry;
Note: Information for another shipment of the same hazardous material already on the Train List is acceptable.

Rule Updated Date

July 2, 2013

[^Top](#)

5.: Checking for Position-in-Train Document

- a. Before moving a hazardous material shipment in a train, a member of the crew must have a paper copy of the Train List or other document showing the current position in the train of each hazardous material shipment (loaded and residue/empty). This document may be computer-generated or hand-printed.
When making pickups or setouts, update the position-in-train document before proceeding.
Note: The train crew can update the position-in-train document with hand-printed notes or by attaching another document to it.
- b. If the document indicating the current position-in-train of each hazardous material is **not** available:
 - (1) Update the documents already in your possession;
 - or*
 - (2) Create a hand-printed list showing the position-in-train of each hazardous material shipment.
Note: The list must show the reporting marks and number for each hazardous material shipment in the train and its actual position in the train.

Rule Updated Date

July 2, 2013

[^Top](#)

6.: Handling Hazardous Waste Shipping Papers and Manifests

- a. The shipping paper for a hazardous waste shipment must have the following entries in addition to those required for other hazardous material shipments:

- (1) proper shipping description;
 - (2) name, address, and telephone number of the hazardous waste generator;
 - (3) name and address of the hazardous waste disposal facility;
 - (4) name of transporter(s);
 - (5) waste manifest number;
 - (6) special handling instructions.
- b. When accepting/pulling a hazardous waste shipment, pick up the car containing hazardous waste as long as you have railroad-produced shipping papers containing the manifest entries (see item 6a above) even though you do **not** have a copy of the hazardous waste manifest.
- Note:** If given the hazardous waste manifest:
- (1) Sign the hazardous waste manifest as requested.
 - (2) Return a copy of the hazardous waste manifest to the person requesting the signature.
 - (3) Fax a copy of the hazardous waste manifest to the National Customer Service Center (NCSC) at 800-228-9615 – ATTN: Waybill Group.

Rule Updated Date

July 2, 2013

[^Top](#)

7.: Handling Requests for Shipping Papers or Hazardous Material Response Information

When receiving a request for shipping papers or hazardous material response information from a railroad employee, regulatory enforcement officer, or emergency response personnel in an emergency:

- a Share **all** the information on the shipping papers for the shipment.
- b Share **all** available hazardous material response information.

Note: Provide an extra copy of the shipping papers or hazardous material response information if available. If an extra copy is not available, share (**DO NOT SURRENDER**) the copy you have with the requestor.

Rule Updated Date

July 2, 2013

[^Top](#)

[Union Pacific Rules](#)

Instructions for Handling Hazardous Materials

Section III: Inspection

- [1.: General Requirements](#)
- [2.: Inspection Procedures](#)
- [3.: Handling Defects](#)

1.: General Requirements

Hazardous material shipments must be inspected to make sure they are in acceptable condition for transportation.

- Inspect **all** loaded and residue/empty hazardous material shipments at the following points:
 - Before accepting them from the shipper;
 - When receiving them in interchange;
Note: Run-through trains received in interchange may continue to the next location where an inspection is required.
 - When placing them in a train.
- Accept or transport **only** those hazardous material shipments that conform to these instructions. For shipments that do not conform, notify your supervisor and note the shipment as "Work Not Done" on the work order.

Rule Updated Date

July 2, 2013

[^Top](#)

2.: Inspection Procedures

In addition to inspecting rail cars for compliance with air brake and train handling rules, visually inspect each loaded or residue/empty hazardous material shipment (including flat cars transporting placarded or marked trailers or containers) **from ground level** (do **not** climb on or go under the car) and check for:

- leaking contents;
- required placards and markings (including stenciling, car certificates, and tank car qualification dates when appropriate) (see Section IV - Placards and Markings, page 21);
- secure fastening of closures and intact condition of seals; **and**
- signs of tampering - such as suspicious items or items that do not belong, the presence of an "Improvised Explosive Device" (IED), and other signs that the security of the car may have been compromised.
Note: Where an indication of tampering or a foreign object is found, take the following actions:
 - Do not accept or move the rail car.
 - Immediately move yourself and others to a safe location away from the rail car before using radios and cell phones to make notifications.
 - For cars at a customer's facility, immediately contact local plant personnel. If local plant personnel are not available or cannot explain what you see, immediately contact the train dispatcher or the Response Management Communications

Center (RMCC) at 1-888-877-7267 for instructions.

- (d) For cars on interchange tracks or in the yard, immediately contact the yardmaster, train dispatcher, or the RMCC at 1-888-877-7267 for instructions.

a. Inspecting All Hazardous Material Shipments *(from ground level)*

- (1) In addition to completing other inspection requirements in this section, make sure that the hazardous material shipment is not leaking.
- (a) Look for leaking contents – drips, wetness, or material on the car or on the ground.
 - (b) Look for a vapor cloud.
 - (c) Listen for hissing sounds of the contents escaping.
 - (d) **Take these actions when there is any sign of leakage:**
 - (i) Follow the instructions in Section VIII - Emergency Response, pages 44-46.
 - (ii) Do **not** accept a hazardous material shipment or allow one to continue in transportation until the leak is controlled.
Note: Leaking hazardous material shipments may be moved without repair or approval, with proper railroad authority, **only** as far as necessary to reduce or eliminate the immediate threat of harm to human health, the environment, or railroad operations within a yard. If further movement of a leaking hazardous material shipment is required, a written Movement Approval must be obtained from DOT authorizing the conditions of the move.
 - (iii) When it is necessary to move a leaking hazardous material shipment, use an adequate number of buffer cars between the locomotive and the leaking car to prevent chemical exposure.
- (2) Make sure placards and markings are appropriate for the shipment and displayed correctly (see Section IV, Placards and Markings, pages 21-34).
- (3) Before accepting a hazardous material shipment from the shipper, make sure that:
- (a) all customer loading and unloading lines are disconnected;
 - (b) derails, chocks, and blue flags are removed;
 - (c) all platforms are raised or are in the clear.

b. Inspecting Placarded/Marked Tank Cars *(from ground level)*

In addition to completing other inspection requirements in this section, check placarded tank cars **or** tank cars marked with an identification number to see that:

- (1) protective housing covers are closed;
- (2) manway cover swing bolts are up and in place;
- (3) all valves and fittings appear to be closed and secure;
- (4) visible plugs or caps (including bottom outlet caps) or other fittings are securely in place;
Note: When heater coil caps are provided and the shipment is a load, the heater coil caps must be applied.
- (5) each car is equipped with "double shelf couplers" and roller bearings.

c. Inspecting Placarded/Marked Gondola Cars *(from ground level)*

In addition to completing other inspection requirements in this section:

- (1) Look for loosely fastened gondola covers.
- (2) Make sure the cover or tie downs do not foul any safety appliances.

d. Inspecting Placarded/Marked Hopper Cars *(from ground level)*

In addition to completing other inspection requirements in this section, check that hopper car discharge gates are closed and secured.

e. Inspecting Shipments Placarded EXPLOSIVES 1.1 or 1.2 *(from ground level)*

- (1) In addition to completing other inspection requirements in this section, check shipments placarded EXPLOSIVES 1.1 and EXPLOSIVES 1.2 for the following:

- (a) Look for indications of damage to the contents.
- (b) Make sure that completed "car certificates" (see Figure 2, page 19) are displayed on both sides of the rail car.
 - (i) Car certificates must be removed after the rail car, trailer, or container is unloaded.
 - (ii) Car certificates are either 7.1 by 7.1 inches or 5.9 by 7.9 inches in size.

Figure 2
Text of Car Certificate

Railroad

No 1 _____ Station _____ 20 _____
 I hereby certify that I have this day personally examined Car Number _____ and that the car is in condition for service and complies with the FRA Freight Car Safety Standards (49 CFR Part 215) and with the requirements for freight cars used to transport explosives prescribed by the DOT Hazardous Materials Regulations. (49 CFR Part 174)

 Qualified Person Designated Under 49 CFR 215.11

No 2 _____ Station _____ 20 _____
 I have this day personally examined the above car and hereby certify that the explosives in or on this car, or in or on vehicles or in containers, have been loaded and braced; that placards have been applied, according to the regulations prescribed by the Department of Transportation; and that the doors of cars so equipped fit or have been stripped so that sparks cannot enter enter.

 Shipper or authorized agent

 Qualified Person Designated Under 49 CFR 215.11

No 3 _____ Station _____ 20 _____
 I hereby certify that I have this day personally supervised the loading of the vehicles or containers on, and their securement to, the above car.

 Shipper or railway employee inspecting loading and securement

Note 1: A shipper must decline to use a car not in proper condition.
Note 2: All certificates, where applicable, must be signed.

- (2) Do not accept or transport the car until all damage has been corrected and car certificates are in place.
- (3) When car certificates are lost in transit, inspect the shipment and replace the car certificates at the next terminal where the train is classified. (Use Union Pacific Form 29065 or other format similar to Figure 2 above.)

f. Inspecting Placarded/Marked Intermodal Shipments (from ground level)

In addition to completing other inspection requirements in this section, make sure that:

- (1) An intermodal tank container of hazardous material is not transported with a container above or below the tank.
- (2) Placards are fully visible when containers are loaded in a well.
- (3) Intermodal tanks are placed so that the bottom outlet valve points toward the ends of the well or platform.

Rule Updated Date

July 2, 2013

[^Top](#)

3.: Handling Defects

When a hazardous material shipment does not appear to be prepared for transportation:

- a. Do **not** accept or pull the hazardous material shipment or allow it to continue in transportation.
- b. Notify the customer, train dispatcher, yardmaster, or your immediate supervisor, as appropriate, and explain the problem.

Rule Updated Date

July 2, 2013

[^Top](#)

[Union Pacific Rules](#)

Instructions for Handling Hazardous Materials

Section IV: Placards and Markings

- [1.: General Requirement](#)
- [2.: Placard Requirements](#)
- [3.: Inspecting for Placards](#)
- [4.: Inspecting for Markings](#)

1.: General Requirement

Hazardous material shipments, whether loaded or residue/empty, must **not** be accepted for transportation or transported unless they are properly placarded and marked. Not all hazardous material shipments require placards.

Rule Updated Date

July 2, 2013

[^Top](#)

2.: Placard Requirements

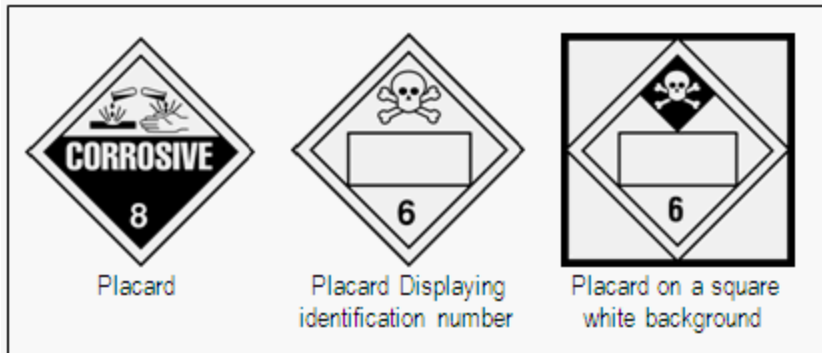
Each rail car, freight container, trailer, transport vehicle, or bulk packaging containing a hazardous material must be placarded on each side and each end in accordance with the instructions below.

Note: Unless the shipping papers indicate that the shipment is a limited quantity, all international (including Canada and Mexico) shipments of hazardous material require placards.

Placard - a sign measuring 10.8 in (273 mm) by 10.8 in (273 mm) square-on-point, communicating a hazard by symbol, color, and words or numbers (when displayed). (See Figure 4, pages 24 and 25 for pictures of placards.)

Figure 3

Types of Placards



- a. Placards are required when transporting **any quantity** (bulk or non-bulk) of the following hazard classes:
- 1.1 Explosive with mass explosion hazard;
 - 1.2 Explosive with projection hazard;
 - 1.3 Explosive with predominantly fire hazard;
 - 2.3 Gas poisonous/toxic by inhalation;
 - 4.3 Dangerous when wet material;
 - 5.2 Organic peroxide, Type B, liquid or solid, temperature controlled;
 - 6.1 Material poisonous/toxic by inhalation;
 - 7 Radioactive Yellow III shipments or exclusive use shipments of low specific activity (LSA) materials and surface contaminated objects.
- b. Placards are required when transporting a total weight of **1001 lb (454 kg) or more** (bulk or non-bulk) of the following hazard classes:
- 1.4 Explosive with no significant blast hazard;
Note: Placards are not required for Class 1.4S materials.
 - 1.5 Very insensitive explosive - blasting agents;
 - 1.6 Extremely insensitive detonating substances;
 - 2.1 Flammable gas;
 - 2.2 Nonflammable, nonpoisonous/nontoxic compressed gas;
 - 3 Flammable liquid;
 - 4.1 Flammable solid;
 - 4.2 Spontaneously combustible material;
 - 5.1 Oxidizer;
 - 5.2 Organic peroxide, other than 'organic peroxide, Type B, liquid or solid, temperature controlled' (item 2a on the previous page);
 - 6.1 Poisonous/toxic material (other than material poisonous/toxic by inhalation);
Note: For U.S. transportation of **Class 6.1 PG III** materials, a PG III placard may be used in place of a POISON/TOXIC placard.
 - 8 Corrosive material;
 - 9 Miscellaneous hazardous material;
Exception: For U.S. transportation, Class 9 placards are not required; however, bulk shipments of Class 9 materials in the U.S. must be marked with the identification number (see item 4a, pages 28-29).
- Combustible Liquids [see item 2c(7) on the next page for non-bulk packaging]^;

Mixed hazardous material classes in this item (see item 2f on the next page).

- c. Placards are **not** required for:
- (1) Hazardous material shipments with less than 1001 lb (454 kg) total weight, when the classes are included in item 2b (above).
 - (2) ORM-D (Other Regulated Materials - D);
 - (3) Class 6.2 (Infectious Substances);
 - (4) Class 9 (U.S. transportation) materials that display the identification number;
 - (5) Limited Quantity (LTD QTY) shipments when identified as such on shipping papers;
 - (6) Cryogenic atmospheric gases, other than Oxygen (for example, Argon);
 - (7) Combustible liquids in non-bulk packaging (for example, drums), usually found in intermodal shipments, unless the material is a hazardous substance or hazardous waste;
 - (8) Rail cars and intermodal tanks that previously transported hazardous materials but have been cleaned and purged;
 - (9) Shipments listed as Radioactive White I or Radioactive Yellow II on shipping papers;
 - (10) Class 1.4S;
 - (11) Shipments of molten sulfur moving to the United States from Canada, provided the identification number and the words 'MOLTEN SULFUR' appear on each side of the tank car.
- d. Placards may be displayed on a hazardous material shipment, even when not required, provided the placard is appropriate for the contents of the shipment.
Note: If displayed, then all instructions for that placard apply.
- e. When required to be affixed to a rail car, certain hazard classes require the display of the primary placard on a white square background, including: (See Figure 3, page 21.)
- (1) Class 1.1 or Class 1.2 explosives;
 - (2) Class 2.3 Zone A **or** Class 6.1 Hazard Zone A poison/toxic-inhalation hazard material, including tank cars containing only a residue of the material;
 - (3) Division 2.1 flammable gases in cryogenic form loaded in DOT-113 tank cars, including tank cars containing only a residue of the material.
- f. When a rail car, trailer, or container is loaded with 1,001 lb (454 kg) or more of non-bulk packages involving two or more classes of hazardous materials from item 2b, page 22, either the DANGEROUS placard or the separate placards for each hazard class may be displayed.
Note: When the DANGEROUS placard is displayed and 2,205 lb (1,000 kg) or more of one class of material is loaded at one loading facility, the placard for that class as specified in item 2b, page 22, must also be displayed.

Adobe Acrobat file of [Placards for Hazardous Materials by Hazard Class-pg 24](#)

Adobe Acrobat file of [Placards for Hazardous Materials by Hazard Class-pg 25](#)

Placards and Markings

Figure 4

Placards for Hazardous Materials by Hazard Class

Class 1 (Explosives)



Division 1.1
(Explosive with Mass Explosion Hazard)



Division 1.2
(Explosive with Projection Hazard)



Division 1.3
(Explosive with Pre-
dominantly a Fire
Hazard)

Division 1.4
(Explosive with No
Significant Blast
Hazard)



Division 1.5
(Very Insensitive
Explosive)

Division 1.6
(Extremely
Insensitive
Explosive)

Class 2 (Gases)



Division 2.1 (Flammable Gas)



Division 2.1 (Flammable Gas in cryogenic
form in DOT 113 Tank Car)



Division 2.2 (Nonflammable Gas)



Canadian Anhydrous Ammonia



Division 2.3 Zone A (Poison Gas)



Division 2.3, Zone B, C or D (Poison Gas)



Oxygen

Class 3
(Flammable Liquids)



Class 3 (Flammable Liquid)

(Combustible Liquids)



Combustible Liquid

Section IV

Placards and Markings

Class 4 (Flammable Solids & Reactive Solids / Liquids)



Division 4.1
(Flammable Solid)



Division 4.2
(Spontaneously Combustible Material)



Division 4.3 (Dangerous When Wet Material)

Class 5 (Oxidizers & Organic Peroxides)



Division 5.1 (Oxidizer)



Division 5.2 (Organic Peroxide)

Class 6 (Poisonous Materials)



Division 6.1 Zone A
(Poison Inhalation Hazard or PIH)



Division 6.1 Zone B
(Poison Inhalation Hazard or PIH)



Division 6.1 (PGI, PGII (Poison) or PGIII)



Division 6.1 (PGIII)

Note: The word "TOXIC" can be used in place of the word "POISON"

Class 7



Class 7 (Radioactive Material)

Class 8



Class 8 (Corrosive Material)

Class 9 (Misc. Hazardous Materials)



Class 9 (Miscellaneous Hazardous Material)

Mixed Load



U.S.



Canadian

Text indicating the hazard is not required on placards other than the DANGEROUS and RADIOACTIVE placards. Worded hazard class text, except for DANGEROUS and RADIOACTIVE, does not have to be in English as long as the size, color, hazard class, and symbol are correct.

-25-

- g. Some shipments of hazardous material require subsidiary placards that represent secondary hazards. Subsidiary placards must not display a 4-digit identification number, but will display the class number at the bottom.
Note: Subsidiary placards must be displayed when the subsidiary hazard class is 2.3 or 6.1 with the notation Poison-Inhalation Hazard or Toxic-Inhalation Hazard present on the shipping papers **or** when the subsidiary hazard class is 4.3.
- h. For residue/empty hazardous material shipments, the rail car, trailer, or container must remain placarded in the same manner as the loaded shipment, unless the packaging:
- (1) has been cleaned of residue; **or**
 - (2) has been purged of vapor to remove any hazard; **or**
 - (3) has been refilled, with a material requiring different placards or no placards, to such an extent that any residue remaining in the packaging is no longer hazardous; **or**
 - (4) contains a residue of an elevated temperature material;
Note: This material may remain placarded in the same manner as when it contained a greater quantity even though the material no longer meets the definition of an elevated temperature material.
or
 - (5) contains a residue of a Hazardous Substance, Class 9, that does not meet the definition of another hazard class/division and is not a hazardous waste or marine pollutant.
Note: This materials may remain placarded in the same manner as when it contained a greater quantity even though the material no longer meets the definition of a Hazardous Substance, Class 9.

Rule Updated Date

July 2, 2013

[^Top](#)

3.: Inspecting for Placards

- a. Make sure that all required placards are:
- (1) consistent with the shipping description entries on the shipping papers;
 - (2) on both sides and both ends of the shipment;
 - (3) in placard holders or securely attached to the rail car, trailer, or container;
 - (4) not damaged, faded - color should be similar to the color printed in this document (see Figure 4, Placard Chart, pages 24-25), or obscured by dirt or car part;
 - (5) oriented horizontally, so you can read them from left to right;
 - (6) readily visible from the direction they face, except from the direction of another rail car, trailer, or container to which the placarded rail car, trailer, or container is coupled.
- b. When **picking up** a hazardous material shipment at the customer's facility or siding, and a placard is not correct, does not

meet the standards above, or is missing:

- (1) Notify the customer, train dispatcher, yardmaster, or your supervisor, as appropriate.
 - (2) Do not accept the hazardous material shipment until corrections have been made.
- c. When a placard does not meet the standards above or is discovered missing **en route**, notify the train dispatcher, yardmaster, or your supervisor, as appropriate. Corrections must be made at the next terminal or inspection point.

Rule Updated Date

July 2, 2013

[^Top](#)

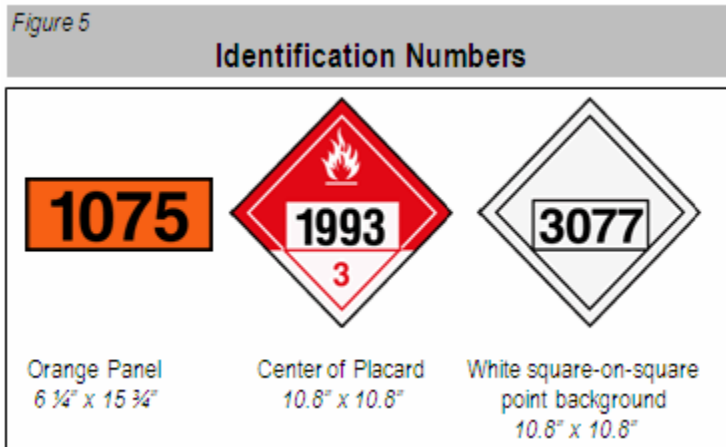
4.: Inspecting for Markings

Marking - a descriptive commodity name, identification number, caution, such as INHALATION HAZARD, HOT, MOLTEN, MARINE POLLUTANT, FUMIGANT, NON-ODORIZED (NOT ODORIZED), or tank car qualification date displayed on hazardous material shipments.

Make sure the markings listed above are displayed on bulk packagings of hazardous material as follows:

a. Inspecting for Identification Number Marks

- (1) Identification numbers can be displayed in one of three ways, as Figure 5, below shows:



- (2) Identification number markings must appear on the placard or in proximity to the placard, when placard is displayed, on both sides and both ends of a:
 - (a) **bulk package** of hazardous material (includes Class 9 materials when no placard is required);
Note: Identification number markings are not required on the ends of multi-compartmented tank cars transporting more than one hazardous material having different DOT identification numbers.
 - (b) rail car, trailer, and container loaded with 8820 lb (4000 kg) or more of **non-bulk packages** of hazardous material meeting the following conditions:
 - (i) Non-bulk packages when all contents have the same proper shipping name and identification number;
 - (ii) Packages were loaded at one location; and
 - (iii) The transport vehicle does not contain any other hazardous or non-hazardous material.

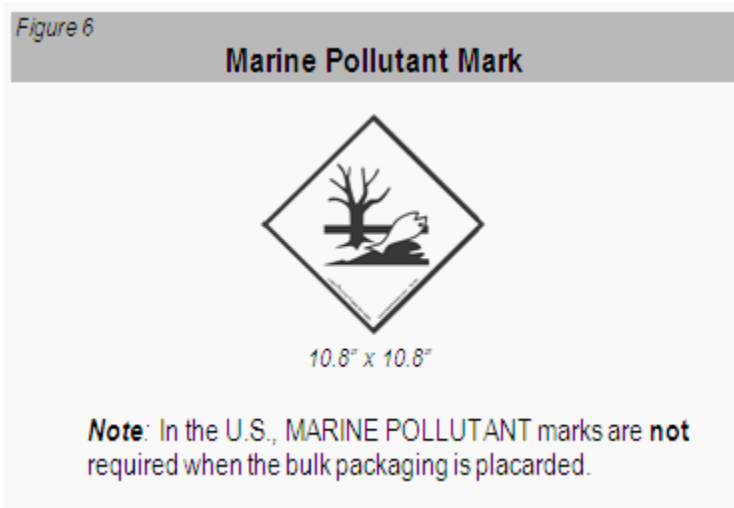
Exception: For Canadian shipments of molten sulfur, the identification number marking is only required

on both sides of the tank car.

- (3) Identification numbers must **not** be displayed on the following:
 - (a) EXPLOSIVES 1.1, 1.2, 1.3, 1.4, 1.5, or 1.6 placards;
 - (b) Class 7 (RADIOACTIVE) placards;
 - (c) DANGEROUS placards;
 - (d) Subsidiary placards.
- (4) Make sure that the identification numbers appear as required above and agree with the shipping description entries on the shipping papers.
- (5) When **picking up** a hazardous material shipment at the customer's facility, a siding or at an interchange point and the identification number is not correct, is not legible, or is missing:
 - (a) Notify the customer, train dispatcher, yardmaster, or your supervisor, as appropriate.
 - (b) Do not accept the hazardous material shipment until corrections have been made.
- (6) When an identification number is not correct, is not legible, or is missing **en route**, notify the train dispatcher, yardmaster, or your supervisor, as appropriate. Corrections must be made at the next inspection point.
Note: Missing identification numbers must be replaced and may be entered on the appropriate placard, orange panel, or white square-on-point configuration by hand using a **black indelible** marker.

b. Inspecting for MARINE POLLUTANT Marks

- (1) For a material described on the shipping papers as a marine pollutant and the shipment does not require a placard, make sure the MARINE POLLUTANT mark appears on both sides and both ends of bulk packagings in one of the formats in Figure 6 below.



- (2) When **picking up** a hazardous material shipment at the customer's facility or siding or at an interchange point, and a required MARINE POLLUTANT mark is not legible or is missing:
 - (a) Notify the customer, train dispatcher, yardmaster, or your supervisor, as appropriate.
 - (b) Do **not** accept the hazardous material shipment until corrections have been made.
- (3) When a required MARINE POLLUTANT mark is not legible or is missing **en route**, notify the train dispatcher, yardmaster, or your supervisor, as appropriate. Corrections must be made at the next inspection point.

c. Inspecting for HOT Marks

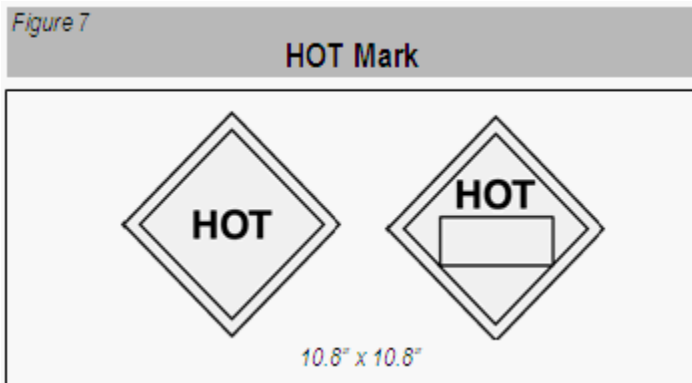
- (1) For a material described on the shipping papers with the words 'HOT,' 'ELEVATED TEMPERATURE MATERIAL,' or 'MOLTEN' and transported in a bulk packaging, the word 'HOT' must be marked on two

opposing sides of the bulk packaging, either:

- (a) on a plain white square-on-point configuration having the same outside dimensions as a placard (see Figure 7 below); *or*
- (b) on the packaging itself.

Note: The word 'HOT' is **not** required for bulk packagings of molten aluminum or molten sulfur marked 'MOLTEN ALUMINUM' or 'MOLTEN SULFUR,' as appropriate.

As Information: A residue/empty shipment that last contained an elevated temperature material (HOT), such as asphalt, is not considered a hazardous material and does not require hazardous material shipping description entries on the shipping paper. When the shipping paper indicates empty, the shipment may be accepted and moved in rail transportation without the hazardous material shipping description entries, even though the HOT mark and identification number are displayed.



- (2) When **picking up** a hazardous material shipment at a customer's facility or siding or at an interchange point, and a HOT mark is not legible or is missing:
 - (a) Notify the customer, train dispatcher, yardmaster, or your supervisor, as appropriate.
 - (b) Do **not** accept the hazardous material shipment until corrections have been made.
- (3) When a HOT mark is not legible or is missing **en route**, notify the train dispatcher, yardmaster, or your supervisor, as appropriate. Corrections must be made at the next inspection point.

d. Inspecting for INHALATION HAZARD Marks

- (1) For a material described on the shipping papers as 'Poison (Toxic) - Inhalation Hazard' or 'Inhalation Hazard,' make sure the words 'INHALATION HAZARD' appear (in at least 3.9-inch high letters) on both sides of the rail car, trailer, or container, to the right as you face the car, near the placard.

Exception: When the words "INHALATION HAZARD" appear on the placards, the INHALATION HAZARD mark is not required on the bulk packaging.
- (2) When **picking up** a hazardous material shipment at the customer's facility or siding or at an interchange point, and the words 'INHALATION HAZARD' are illegible or missing:
 - (a) Notify the customer, train dispatcher, yardmaster, or your supervisor, as appropriate.
 - (b) Do **not** accept the shipment until corrections have been made.
- (3) When the 'INHALATION HAZARD' mark is illegible or missing **en route**, notify the train dispatcher, yardmaster, or your supervisor, as appropriate. Corrections must be made at the next inspection point.

e. Inspecting for Commodity Names

- (1) The commodity name is required on an intermodal tank transporting any hazardous materials and on a tank car transporting certain hazardous materials. The commodity name (3.9 inches in height for tank cars and 2 inches in

height for intermodal tanks) must match the proper shipping name on the shipping papers and may include the technical name, although it is not specifically required. The commodity name must be on two opposing sides of the intermodal tank or tank car.

- (2) When **accepting** an intermodal tank or tank car of hazardous material from the shipper or in interchange and the commodity name is illegible or missing:
 - (a) Notify the customer, train dispatcher, yardmaster, or your supervisor, as appropriate.
 - (b) Do **not** accept the shipment until corrections have been made.
- (3) When the commodity name on an intermodal tank or tank car is illegible or missing **en route**, notify the train dispatcher, yardmaster, or your supervisor, as appropriate. Corrections must be made at the next inspection point.

Table 5

**List of Materials that Require the
Commodity Name on Tank Cars**

Division 2.1 materials
Division 2.3 materials
 Acrolein, stabilized
 Ammonia, anhydrous, liquefied
 Ammonia solutions (more than 50% ammonia)
 Bromine or Bromine solutions
 Bromine chloride
 Chloroprene, stabilized
 Dispersant gas or Refrigerant gas
 Formic acid
 Hydrocyanic acid, aqueous solutions
 Hydrofluoric acid, solution
 Hydrogen cyanide, stabilized (less than 3% water)
 Hydrogen fluoride, anhydrous
 Hydrogen peroxide, aqueous solutions
 - (greater than 20% hydrogen peroxide)
 Hydrogen peroxide, stabilized
 Hydrogen peroxide and peroxyacetic acid mixtures
 Nitric acid (other than red fuming)
 Phosphorus, amorphous
 Phosphorus, white dry;
 - or Phosphorus, white, under water;
 - or Phosphorus, white, in solution;
 - or Phosphorus, yellow dry;
 - or Phosphorus, yellow, under water;
 - or Phosphorus, yellow, in solution
 Phosphorus, white, molten
 Potassium nitrate and Sodium nitrate mixtures
 Potassium permanganate
 Sulfur trioxide, stabilized
 Sulfur trioxide, uninhibited

f. Inspecting for Tank Car Qualification Dates

- (1) Make sure the stencils describing the tank car specification and qualification dates are legible. These stencils will appear on both sides of the tank car toward the end on the right as you face the car.
- (2) Check the tank car qualification dates for pressure relief devices (PRD), tank, and interior heater coils to be sure they are current. A tank car is overdue its periodic qualification date after the last day of the year shown in the DUE column. (See Figure 8 below.)
 - (a) When the tank car was loaded after the end of the qualification year, do **not** accept the loaded tank car from the shipper.
 - (b) When the tank car was loaded before the end of the qualification year, it may be accepted from the shipper and transported beyond the qualification year for unloading purposes, but must be re-qualified before reloading.

Note: When a residue/empty tank car is overdue its periodic qualification date, the tank car may move and not be in violation of DOT regulations. The regulations only address **loading** a tank car overdue for its periodic qualification.
- (3) When found in transportation, a tank car with an overdue qualification date may proceed to destination.

Figure 8

Tank Car Qualification Stencil

Tank Car Qualification Stencil

DOT 111A100W1

		Station Stencil	QUALIFIED	DUE
TANK QUALIFICATION		ABC-1	2003	2013
THICKNESS TEST		ABC-1	2003	2013
SERVICE EQUIPMENT		ABC-1	2003	2013
PRD: VALVE	75 PSI	DEF-1	2003	2013
INT HTR	SPGR	FGL-1	2003	2008
LINING		ABC-1	IP	NONE
88.B.2 INSPECTION		ABC-1	2003	2013
STUB SILL INSPECTION		ABC-1	2003	2013

g. Inspecting for Non-Odorized Marks

As information: A tank car or intermodal tank container shipment containing liquefied petroleum gas (LPG) that is unodorized must be legibly marked NON-ODORIZED or NOT ODORIZED on two opposing sides near the commodity name or near the placards.

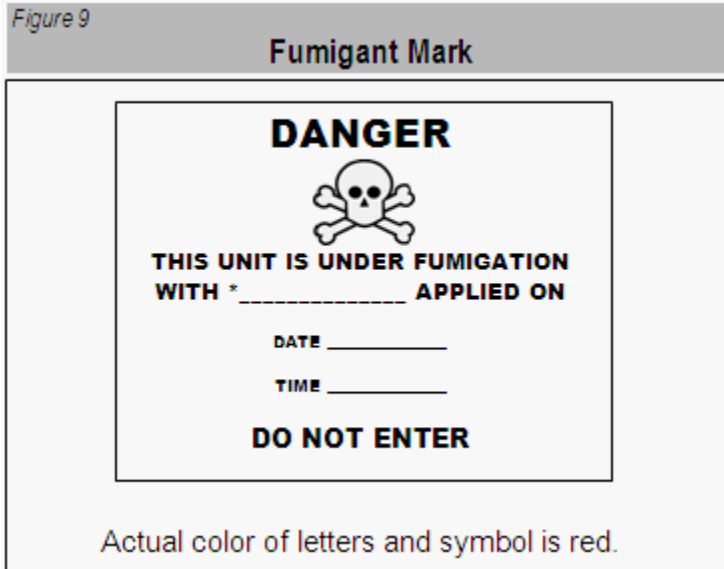
The NON-ODORIZED or NOT ODORIZED marks may appear on a tank car or tank container used for both unodorized and odorized LPG. Shippers may include on shipping papers the information that the shipment is not odorized, if they so choose.

h. Inspecting for FUMIGANT Marks

- (1) **As information,** the purpose of the FUMIGANT mark (see Figure 9 below) is to warn persons unloading the rail car, trailer, or container that it has been fumigated and that they must take appropriate precautions before unloading the car. The (*) on the mark will be replaced by the name of the fumigant.
- (2) The FUMIGANT mark must be in English. However, EPA regulations allow another language in addition to the English version on the same FUMIGANT mark or an additional one.

Note: The fumigant marking is required on each point of entry to a trailer or container.

- (3) Shipping paper entries for fumigated shipments:
- (a) For U.S. shipments, shipping description entries are not required on the shipping papers.
 - (b) For international (including Canada) shipments, shipping description entries include: UN 3359, Fumigated Unit, name of the fumigant, amount of fumigant, date of fumigation, and any disposal information.



Rule Updated Date

July 2, 2013

[^Top](#)

[Union Pacific Rules](#)

Instructions for Handling Hazardous Materials

Section V: Switching

- [1.: General Requirement](#)
- [2.: Safety](#)
- [3.: When to Use the Switching Chart](#)
- [4.: How to Use the Switching Chart](#)

1.: General Requirement

Switch placarded hazardous material shipments only in compliance with the restrictions on the Switching Chart (see Figure 10, pages 37-38).

Switching - "The operation of moving rail cars within a yard in order to place them in a train or on a classification, repair, or storage track." Switching also includes making pickups and setouts at a customer's facility or interchange point.

Switching does **not** include moving rail cars to or from a shipper's facility or on an industrial lead into or out of the yard.

Reminder: When moving rail cars to or from a shipper's facility or on an industrial lead into or out of the yard, comply with **both** the train placement restrictions in Section VI **and** the required documentation requirements in Section II.

<p>When loaded placarded tank cars are cut off in motion, the coupling speed must not exceed 4 miles per hour.</p>

Rule Updated Date

July 2, 2013

[^Top](#)

2.: Safety

Before coupling, position yourself toward the end of a tank car, if possible, away from the manway and valves. Contents of tank cars may splash during or immediately following coupling, due to either improperly secured closures or the impact of coupling.

Rule Updated Date

July 2, 2013

[^Top](#)

3.: When to Use the Switching Chart

Refer to the Switching Chart:

- a. when moving a placarded hazardous material shipment in a yard to place it in a train or on a classification, repair, or storage track;
- b. when making pickups or setouts of a placarded hazardous material shipment at a customer's facility, interchange point, or other setout point.

Rule Updated Date

July 2, 2013

[^Top](#)

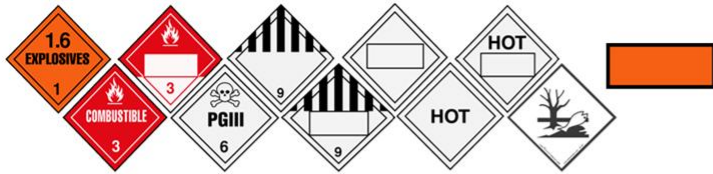
4.: How to Use the Switching Chart

- a. Select the applicable column and row of the Switching Chart. To do so:
 - (1) Identify the placards and/or markings applied to the car, either from information on the shipping papers or from observation.
Note: When placards are displayed but are not required by regulation (permissive placarding), the rail car must be switched as required for the placard displayed.
 - (2) Determine whether the car is loaded or residue/empty.
Note: Residue/empty tank cars are identified on switch lists, track lists, and track inquiries with an 'E' or 'DE' in the appropriate field. The notation 'RESIDUE: LAST CONTAINED' on the shipping papers indicates a residue/empty shipment. If in doubt, treat as a load.
 - (3) Identify the car type involved by observation, for example, tank car, hopper car, gondola, etc.
- b. Find the applicable section on the chart, based on the placard or marking applied, the load/empty status, and the car type.
- c. Follow the restrictions listed in the applicable section of the chart.

Acrobat Adobe file of Switching Chart

Figure 10: Switching Chart

A. There are no switching restrictions for hazardous material shipments placarded or marked:

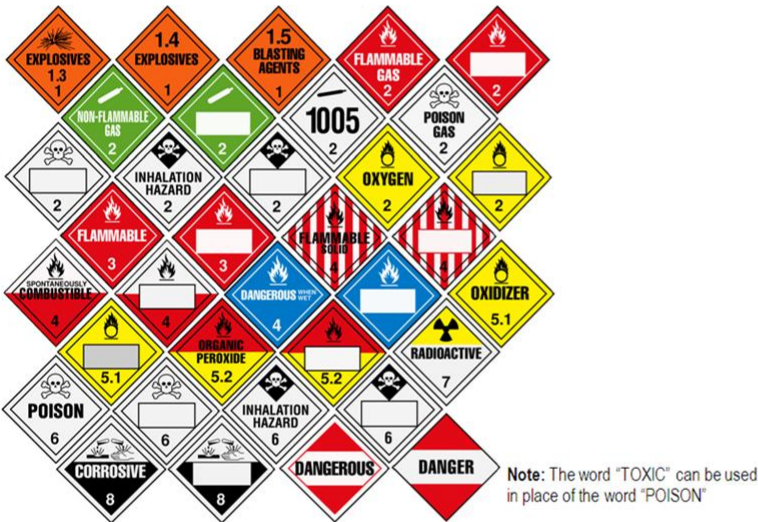


Residue/empty tank cars containing hazardous materials have no switching restrictions. [See Section V, Item 4 a (2), page 36.]

Exception: Residue/empty DOT 113 tank cars placarded FLAMMABLE GAS must be switched according to the restrictions in C below. These shipments can be identified by the notation "DESC" in the "SPCD" (Special Conditions) column of a switch list or track list by the notation "DOT 113, DO NOT HUMP OR CUT OFF CAR WHILE IN MOTION" on the shipping paper.

B. For hazardous material shipments placarded:

Note: For flat cars or articulated flat cars carrying freight containers, trailers, tote bins, portable tanks, or IM portable tanks with placards in this section, only restriction 1 in C applies.

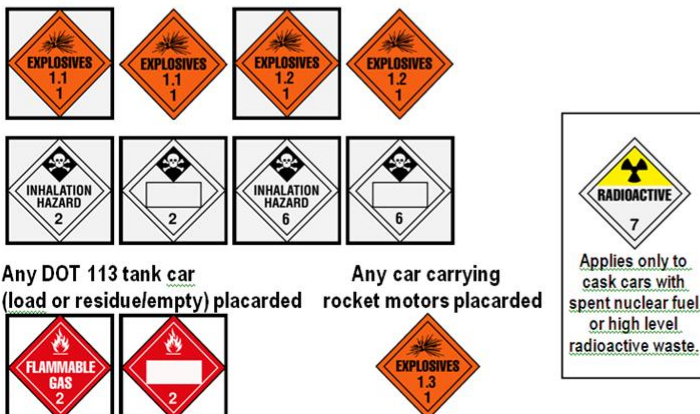


Restrictions:

1. **When moving over a hump,**
 - a. Release any **loaded** placarded cars (not subject to the restrictions in C below) to roll free only in cuts of two cars or less.
 - b. Release any rail cars to be coupled into a **loaded** placarded car only in cuts of two cars or less.
 - c. For **loaded** TIH/PIH tank cars shown on a switch list as "NK", "FLAT YARD-DO NOT KICK" or displaying INHALATION HAZARD placards or markings:
 - (1) release these tank cars **only** when any preceding cars are clear of the track these cars will enter **and** the switch is lined for that track.
 - (2) release any cars to follow into a different track or group only after these tank cars have cleared the lead and the switch is lined for the next move.
2. **When flat switching,** shove to rest any loaded TIH/PIH tank cars shown on the switch list as "NK", "FLAT YARD – DO NOT KICK" or displaying INHALATION HAZARD placards or markings – do not kick these cars or cut them off in motion.
3. **For loaded tank cars of flammable gas:**
 - a. When allowed to roll free, release them in cuts of two cars or less.
 - b. For cars allowed to roll free directly into these loaded tank cars, release them in cuts of two cars or less.

C. For any hazardous material shipments placarded:

Note: Restriction 1 also applies to any loaded placarded rail car including flat cars or articulated flat cars carrying freight containers, trailers, tote bins, portable tanks, or IM portable tanks with placards shown in B above.



1. **Follow these restrictions:**
 - Do not kick or hump these rail cars.
 - Do not cut off these rail cars in motion.
 - Do not couple into these cars with any more force than necessary to make the coupling.
 - Do not allow a rail car moving under its own momentum to strike these rail cars.
2. **Follow these additional restrictions for any car placarded EXPLOSIVES 1.1 or EXPLOSIVES 1.2:**
 - Separate these rail cars from an engine by at least one buffer car, either:
 - a non-placarded rail car; or
 - a rail car with a placard or marking shown in A above.
 - Do not place or leave these rail cars where there is any probable danger of fire (for example, switch heater).
 - Do not place or leave these cars under bridges, under overhead highway crossings (overpasses), or along passenger stations.

Rule Updated Date

July 2, 2013

[^Top](#)

[Union Pacific Rules](#)

[Instructions for Handling Hazardous Materials](#)

Section VI: Train Placement

- [1.: General Requirement](#)
- [2.: When to Use the Placement in Train Chart](#)
- [3.: How to Use the Placement in Train Chart](#)

1.: General Requirement

A placarded hazardous material shipment must be placed in a train in compliance with the instructions on the Placement in Train Chart (see Figure 12, pages 40-41). **Note:** Correct any hazardous material train placement errors at the first location that allows switching, once the error is identified.

Rule Updated Date

July 2, 2013

[^Top](#)

2.: When to Use the Placement in Train Chart

Use the chart to make sure hazardous material train placement is correct:

- a. before a train departs the initial terminal;
- b. before a train departs a location where pickups and setouts were made en route;
- c. when delivering cars to or picking cars up at inter-change tracks owned and operated by another railroad.

Rule Updated Date

July 2, 2013


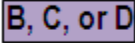





[^Top](#)

3.: How to Use the Placement in Train Chart

- a. Select the applicable column of the Placement in Train Chart, pages 40-41.
 - (1) Find the placard or marking applied to the car **or** find the placard endorsement on the shipping papers. If a placard displayed is not required (permissive placarding), place the car as required for the placard applied.
 - (2) Determine the load/empty status of the car (see note 3 on Placement in Train Chart, page 41).
 - (3) Identify the type of car involved by inspection.
 - (4) Find the appropriate column (A, B, C, D, E, F, G) based on the placard applied, load/empty status, and car type or by







using Figure 11 below.

- b. Follow the instructions to the right as indicated by the colored squares or 'X's in that column.

<p>Train – one or more engines coupled, with or without rail cars, displaying a marker, requiring an appropriate air brake test, and authorized to operate on a main track.</p> <p>Note: This also applies to movements on an industrial lead.</p>	<i>Figure 11</i>	
	Placard Endorsement Conversion Chart	
	If the placard endorsement is:	Use Column
	***** * (No endorsement – empty box) * *****	
	***** * DANGEROUS * *****	
	***** * RADIOACTIVE MATERIAL * *****	
	***** * POISON PG I ZONE A * (1) *****	
***** * POISON GAS ZONE A * (1) *****		
***** * EXPLOSIVES * (1) *****		
***** * EXPLOSIVES AND POISON GAS * (1) *****		
<p>Note: (1) Placard may have a square white background</p>		

Acrobat Adobe file of [Placement in Train Chart](#)

Figure 12: Placement in Train Chart

<p>General Information</p> <p>A. For train placement purposes, each platform or well of an intermodal rail car is counted as one car.</p> <p>B. There are no train placement restrictions for end-of-train devices.</p> <p>C. A buffer car for train placement purposes is a:</p> <ul style="list-style-type: none"> • non-placarded rail car; • placarded/loaded tank car from Column A (green); • placarded rail car, other than a tank car, provided it complies with all applicable restrictions below; or • placarded residue/empty tank car, provided it complies with Restrictions #3, #4, and #5 below. <p>D. Diamond-shaped placards without a square white background may have different restrictions than those with the square white background. For example, the INHALATION HAZARD (2) diamond shaped placard (without the square white background) is found in the purple column. The INHALATION HAZARD (2) placard with a square white background is found in the blue column.</p> <p>Notes</p> <p>1. If the placard on a rail car is displayed on a square white background -- EXPLOSIVES 1.1, EXPLOSIVES 1.2, INHALATION HAZARD (2), or INHALATION HAZARD (6), the car must be placed next to and ahead of any car occupied by guards or technical escorts accompanying the car.</p> <p>If the rail car occupied by guards or technical escorts is equipped with a lighted heater or stove, there must be at least three cars between the escort car and a rail car placarded EXPLOSIVES 1.1 or EXPLOSIVES 1.2.</p> <p>2. The word "TOXIC" can be used in place of the word "POISON".</p> <p>3. Residue/empty tank cars are identified on train consists/Train Lists and /RD Track Lists by the notation "RESIDUE: LAST CONTAINED". If in doubt, treat the car as a load.</p> <p>4. For helper units and distributed power units, see Section VII, Item 3.</p>								
<p>Restrictions:</p> <p>1. Do not place a placarded car next to any loaded rail car displaying a placard found in the columns with color indicated by the squares. For example, a placard shown in Column D (purple) must not be placed next to any loaded rail car placarded in Columns E (yellow), F (blue), or G (red).</p> <p>2. Do not place a placarded car nearer than the sixth car from an engine (working or not working) or occupied caboose/business car. If the train does not have at least five buffer cars, the available buffer cars must be placed to protect the engine (working or not). If there is an occupied caboose/business car in the train, the available buffer cars must be divided equally to protect both the engine and caboose/business car. At least one buffer car is required.</p> <p>3. Do not place a placarded car next to an engine (working or not working) or occupied caboose/business car regardless of train length.</p> <p>4. Do not place a placarded car, or a residue TIH/PIH tank car, next to a loaded flatcar except closed TOFC/COFC equipment, auto carriers, and other specially-equipped cars with tie-down devices for handling vehicles.</p> <p>5. Do not place a placarded car, or a residue TIH/PIH tank car, next to a loaded bulkhead flatcar or open top car when any of the <u>loading</u> protrudes beyond the car ends or, if shifted, would protrude beyond the car ends. Note: Do not place a placarded car next to flatcars designed for wheel sets or traction motors or for flat cars with tote bins without bulkheads extending more than half the height of the tote bins.</p> <p>6. Do not place a placarded car next to any rail car, transport vehicle, or freight container with an open flame device or an internal combustion engine in operation. Note: Does not apply to cryogenic refrigerated equipment, but does apply to mechanical reefer equipment in protective service.</p>								
<p>No Restrictions</p>	<p>Any loaded or residue/empty cars</p>	<p>Other loaded cars (not tank cars)</p>	<p>Tank cars</p> <p>Residue/empty</p>	<p>Loaded</p>	<p>Any loaded cars</p>	<p>Loaded tank cars</p> <p>For other than loaded tank cars, see above.</p>	<p>Any loaded cars</p>	
	A	B	C	D	E	F	G	
								
				X		X	X	X
			X	X	X	X	X	X
			TIH PIH	X		X	X	X
		TIH PIH	X		X	X	X	
			X		X	X	X	

Rule Updated Date

July 2, 2013

[^Top](#)

[Union Pacific Rules](#)

Instructions for Handling Hazardous Materials

Section VII: Train Operations

- [1.: General Requirement](#)
- [2.: Car Status - "HZ"](#)
- [3.: Operating Key Trains](#)
- [4.: Helper Units](#)
- [5.: Movements on Excepted Track](#)

1.: General Requirement

Trains transporting hazardous materials will be operated in compliance with the DOT regulations and UPRR rules.

Rule Updated Date

July 2, 2013

[^Top](#)

2.: Car Status - "HZ"

A hazardous material shipment that is placed in "HZ" status is a shipment that no longer meets DOT hazardous material regulation compliance requirements. **Shipments in the "HZ" status must not continue to move in transportation.** Shipments in "HZ" status can only be released for continued transportation by a UP Hazardous Materials Manager.

Rule Updated Date

July 2, 2013

[^Top](#)

3.: Operating Key Trains

Trains carrying a specified number of loaded rail cars, trailers, and containers of hazardous material will be operated as "key trains."

a. Definition:

A "Key Train" is any train that meets one or more of the following conditions:

(1) One (1) or more **loads** of spent nuclear fuel (SNF) or high level radioactive waste (HLRW) moving under the following Hazardous Materials Response Codes -- 4929142, 4929143, 4929144, and 4929147; **or**

- (2) One (1) or more car **loads** of **any combination** of either hazardous material shipments that require the phrase "Poison/Toxic-Inhalation Hazard" (PIH or TIH) (Hazard Zone A, B, C, or D) on the shipping papers; **or**
- (3) One (1) or more shipments of anhydrous ammonia (Identification Number 1005) listed as "Inhalation Hazard" on the shipping paper; **or**
- (4) Twenty (20) or more car **loads** or intermodal portable tank **loads** of hazardous materials.

Exception: Do **not** count shipments carrying mixed loads of hazardous materials (MXHAZD) in box cars, trailers, or containers when determining key train status.

(5) A "Key Train - Crude Oil" is a train with 20 or more loads of Petroleum Crude Oil with an Identification Number of UN1267.

(6) A "Key Train – High Hazard Flammable Train" is a train with 20 or more loaded tank cars of a Class 3 Flammable Liquid in a continuous block, or containing 35 or more loaded tank cars of a Class 3 Flammable Liquid across the entire train; and at least one of these cars is a DOT-111 tank car.

b. Identifying Key Trains

- (1) A computer-generated Train List will identify Key Train / Key Train - Crude Oil / Key Train - High Hazard Flammable Train status in the header block on the first page.
- (2) When a computer-generated Train List is not available or hazardous material cars are added to a train, the conductor must review the shipping papers for all hazardous material cars and determine Key Train status.
- (3) After picking up or setting out hazardous material shipments **en route**, the Key Train status may change. The conductor must determine whether or not Key Train status has changed and, if so, promptly notify the train dispatcher.

c. Instructions for Operating Key Trains

(1) The maximum authorized speed for Key Trains is 50 MPH, unless further restricted. The maximum authorized speed for a Key Train - Crude Oil / Key Train - High Hazard Flammable Train is 40 MPH within a High Threat Urban Area. (Refer to SI-03 in Area Timetable or Subdivision General Order for HTUA restrictions.)

Note: Where lower speed restrictions are in effect, or when the Key Train is restricted to a lower speed for other reasons, the lower speed governs.

- (2) Only cars equipped with roller bearings will be allowed in a Key Train.
- (3) When a train defect detector reports a defect in a Key Train, refer to **System Special Instructions**, Item 13.
- (4) All caboosseless key trains, except yard, local and transfer trains operating less than 20 miles from their point of origin must be equipped with an operable end-of-train telemetry device when operating on main track.

Note: When an EOT device fails en route, a Key Train can pick up a hazardous material shipment and continue to the next terminal where the EOT device can be repaired or replaced. At this terminal, the EOT device must be repaired or replaced before the Key Train can be moved farther. All other End of Train (EOT) rules in the **Air Brake and Train Handling Rules** remain in effect.

(5) When operating a Key Train on a foreign road, the crew operating the train must notify the foreign road's train dispatcher that their train is a Key Train as defined by UPRR's **Instructions for Handling Hazardous Materials**. *Note:* This notification must occur at the earliest opportunity, unless relieved of the requirement to do so by the UPRR train dispatcher.

Rule Updated Date

May 2, 2016

System Special Instructions

Effective Date: May 2, 2016

[^Top](#)

4.: Helper Units

- a. A train with distributed power (DP) or a manned helper must comply with Restrictions 2 and 3 on Figure 12: Placement In Train Chart (pages 40-41).
- b. In an emergency, a train with a placarded rail car on the rear of the train may be helped as long as one buffer car is placed between the placarded rail car and the helper unit.

Note: A buffer car is not required if the placarded rail car on the rear is from one of the following columns in Figure 12: Placement in Train Chart (pages 40-41).

- (1) Column A,
- (2) Column B,
- (3) Column F and is "other than a tank car."

Rule Updated Date

July 2, 2013

[^Top](#)

5.: Movements on Excepted Track

Do not operate a train that contains more than five placarded hazardous material cars on any track designated as "FRA Excepted Track."

Rule Updated Date

July 2, 2013

[^Top](#)

[Union Pacific Rules](#)

Instructions for Handling Hazardous Materials

Section VIII: Emergency Response

- [1.: General Requirement](#)
- [2.: Actions to Take When a Fire or Vapor Cloud is Visible](#)
- [3.: Actions to Take When No Fire or Vapor Cloud is Visible](#)
- [4.: Cooperating with Local Emergency Responders](#)
- [5.: Handling Leaking Hazardous Material Shipments](#)

1.: General Requirement

When an emergency occurs, **SAFETY IS OF FIRST IMPORTANCE.**

- a. Make an emergency call as radio rules require.
- b. Look for a fire or vapor cloud.
- c. Determine the status of crew members in the area.
- d. Warn everyone to keep at a safe distance.

Rule Updated Date

July 2, 2013

[^Top](#)

2.: Actions to Take When a Fire or Vapor Cloud is Visible

- a. Take the shipping papers (including the emergency response information) and move yourself and other crew members uphill and upwind (in the direction from which the wind is blowing) at least one half mile. Stay out of ditches and low areas.
- b. Do not smoke or use fusees.
- c. Provide the train dispatcher or yardmaster with as much of the following information as is available:
 - (1) Specific location of the emergency (station, mile post location, nearest street or crossing);
 - (2) Type of emergency;
 - (3) Status of crew members;
 - (4) Cars involved, including the initials and numbers of each car involved, and each car's condition, for example, leaking, derailed, or on fire;
 - (5) Surroundings, for example, proximity to populated areas, local bodies of water, nearby drainage ditches, or storm sewers; description of terrain; location of access roads; weather conditions;
 - (6) Resources necessary to handle the situation for example, fire, ambulance, and law enforcement agencies;
 - (7) Location where a crew member with shipping papers will meet arriving emergency response personnel.
- d. Once you are in a safe location:

- (1) Identify yourself and cooperate with the local emergency response personnel as described in item 4, page 46.
- (2) Review your shipping papers and emergency response information.
- (3) If necessary, move to the farthest distance recommended in:
 - (a) the Evacuation Section of the emergency response information accompanying the shipping papers; *or*
 - (b) information from the *Emergency Response Guidebook*.

Rule Updated Date

July 2, 2013

[^Top](#)

3.: Actions to Take When No Fire or Vapor Cloud is Visible

- a. Review the shipping papers for hazardous material shipments.
- b. Take the shipping papers (including the emergency response information) and inspect the train to identify the rail cars, trailers, or containers involved, and look for indications of the release of hazardous materials.
- c. If you encounter a hazardous material release, unusual smells, or noises during this inspection:
 - (1) Avoid contact with the material and its vapors.
 - (2) Move yourself and other crew members uphill and upwind (in the direction from which the wind is blowing) at least one-half mile. Stay out of ditches and low areas.
 - (3) Eliminate any ignition sources (no smoking, no fusees).
 - (4) Warn all bystanders to stay away.
- d. After completing the inspection, notify the train dispatcher or yardmaster with as much of this information as is available:
 - (1) Status of crew members;
 - (2) Cars involved, including the initials and numbers of each car involved, and each car's condition, for example, leaking, derailed, or on fire;
 - (3) Surroundings, for example, proximity to populated areas, local bodies of water, nearby drainage ditches, or storm sewers; description of terrain; location of access roads; weather conditions;
 - (4) Resources necessary to handle the situation, for example, fire, ambulance, and law enforcement agencies;
 - (5) Location where a crew member with shipping papers will meet arriving emergency response personnel.
- e. Once you are in a safe location:
 - (1) Identify yourself to and cooperate with the local emergency response personnel as described in item 4 below.
 - (2) Review your shipping papers and emergency response information.
 - (3) If necessary, move to the farthest distance recommended in:
 - (a) the Evacuation Section of the emergency response information accompanying the shipping papers; *or*
 - (b) information from the **Emergency Response Guidebook**.

Rule Updated Date

July 2, 2013

[^Top](#)

4.: Cooperating with Local Emergency Responders

- a. Share any requested information from the shipping papers with emergency response personnel.
 - (1) Provide an extra copy of the Train List, when available. If an extra copy is not available, share **(DO NOT SURRENDER)** the copy you have with the emergency response personnel.
Note: Retain any waybills and a copy of the Train List until you can deliver them to the first railroad manager on the scene.
 - (2) Provide a copy of the emergency response information provided with the shipment.
- b. Help emergency response personnel identify cars and the commodities involved. Use shipping papers or observations from a safe location to accomplish this task.
- c. Give the first railroad manager on the scene an oral description of the incident and indicate any assistance you provided emergency responders.
- d. Remain at the scene, at a safe distance, until a railroad manager relieves you.
- e. A railroad spokesperson will handle discussing the incident with the media or other non-emergency response personnel.

Rule Updated Date

July 2, 2013

[^Top](#)

5.: Handling Leaking Hazardous Material Shipments

See Section III, item 2a(1)(d) on page 17 for the instructions regarding the handling of leaking hazardous material shipments.

Rule Updated Date

July 2, 2013

[^Top](#)

[Union Pacific Rules](#)

[Instructions for Handling Hazardous Materials](#)

APPENDIX: Appendix

- [APPENDIX: Appendix](#)

APPENDIX: Appendix

Special Permit Authorization

**SPECIAL PERMIT AUTHORIZATION
DOT-SP 9271**

U.S. Department of Transportation
Pipeline and Hazardous Materials Safety Administration
400 Seventh Street, S.W.
Washington, D.C. 20590

**SPECIAL PERMIT AUTHORIZATION
DOT-SP 9271
EXPIRATION DATE: In effect until further notice.**

GRANTEE: Union Pacific Railroad Company
Omaha, NE

In response to your December 14, 2009 application for renewal of DOT-SP 9271, the grantee status to DOT-SP 9271 for Union Pacific Railroad Company is hereby renewed in accordance with 49 CFR § 107.109.

Copies of this special permit may be obtained by accessing the Hazardous Materials Safety Homepage at http://hazmat.dot.gov/sp_app/special_permit/spec_perm_index.htm.

Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit is prohibited.

If you have questions regarding this action please call the Office of Hazardous Materials Special Permits and Approvals at (202)366-4535.

Issued in Washington, D.C. on **January 26, 2011**.

for Dr. Magdy El-Siibaie

Associate Administrator for Hazardous Materials Safety

This appendix is published here in compliance with the DOT special permit regarding car separation requirements for Division 1.1, 1.2, 1.3, and 1.4 explosives.

DOT-SP 9271
(TWELFTH EDITION)
(FOR RENEWAL, SEE 49 CFR § 107.109)

1. **GRANTEE:** Union Pacific Railroad Company - Omaha, NE
2. **PURPOSE AND LIMITATION:**
 - a. This special permit authorizes the deviation from car separation requirements for transportation in commerce of packages prescribed herein of Division 1.1, 1.2, 1.3, and 1.4 explosives. This exemption provides no relief from any Hazardous Materials Regulation (HMR) other than as specifically stated herein.
 - b. The safety analysis performed in development of this exemption only considered the hazards and risks associated with transportation in commerce.
 - c. Unless otherwise stated herein, this special permit consists of the special permit authorization letter issued to the grantee together with this document.
3. **REGULATORY SYSTEM AFFECTED:** 49 CFR Parts 106, 107 and 171-180.
4. **REGULATIONS FROM WHICH EXEMPTED:** 49 CFR § 174.203(a) in that marking the shipping paper with the special permit number is waived; and § 173.302(c) in that marking the special permit number on the packaging is waived; and § 174.85(d) Table in that deviation from car separation requirements is authorized, except as specified therein.
5. **BASIS:** This special permit is based on the application of Union Pacific Railroad Company dated December 14, 2009, submitted in accordance with § 107.109.
6. **HAZARDOUS MATERIALS (49 CFR § 172.101):**

Proper Shipping Name Hazardous Materials Description	Hazard Class/ Division	Identi- fication Number	Packing Group
Various explosives particularly Rocket motor and spacecraft assemblies	1.1	As appropriate	As appropriate
	1.2		
	1.3		
	1.4		

7. **SAFETY CONTROL MEASURES:** Prescribed packaging is as defined in 49 CFR Part 173, Subpart C.
8. **SPECIAL PROVISIONS:**
 - a. The car separation requirements of § 174.85 are waived in lieu of the following:
 - (1) Flatcars carrying loaded trailers or containers placarded EXPLOSIVES 1.1 or 1.2 may be placed next to flatcars loaded with trailers or containers placarded EXPLOSIVES 1.3 or 1.4 without a buffer car in between.
 - (2) Flatcars in trailer-on-flatcar or container-on-flatcar service with loads placarded EXPLOSIVES 1.1 or 1.2 may be placed next to non-placarded, loaded, specially equipped cars in trailer-on-flatcar service or container-on-flatcar service, or may be placed next to flatcars loaded with vehicles secured by means of a device designed for that purpose and permanently installed on the flatcar and of a type generally accepted for handling in interchange between railroad (i.e., bi-level and trilevel auto racks).
 - (3) Flatcars with rocket motors, placarded EXPLOSIVES 1.1, 1.2, 1.3 or 1.4, in trailers with automatic refrigerator or heating apparatus in operation may be placed next to flatcars with rocket motors, placarded either EXPLOSIVES 1.1, 1.2, 1.3 or 1.4, in trailers with automatic refrigerator or heating apparatus in operation. This apparatus must conform to DOT Special Permit 5022.
 - (4) Freight cars placarded EXPLOSIVES 1.1 or 1.2 may be placed next to a freight car placarded EXPLOSIVES 1.3 or 1.4 without a buffer car in between.

- b. Carriers who receive packages covered by this exemption in interchange may transport the packages under the terms of this exemption provided a copy of this exemption is maintained at the carrier's principle place of business and is made available to a representative of the Department of Transportation upon request.
 - c. Sections 172.203(a) and 172.302(c) are waived.
9. **MODES OF TRANSPORTATION AUTHORIZED:** Rail freight.
10. **MODAL REQUIREMENTS:** A current copy of this special permit or a current transcript of the complete text without the signature in a carrier provided document must be in the possession of a member of the train crew.
11. **COMPLIANCE:** Failure by a person to comply with any of the following may result in suspension or revocation of this special permit and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:
- a. All terms and conditions prescribed in this special permit and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
 - b. Persons operating under the terms of this special permit must comply with the security plan requirement in Subpart I of Part 172 of the HMR, when applicable.
 - c. Registration required by § 107.601 et seq., when applicable.
- Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this special permit must receive training on the requirements and conditions of this special permit in addition to the training required by §§ 172.700 through 172.704.
- No person may use or apply this special permit, including display of its number, when the special permit has expired or is otherwise no longer in effect.
- Under Title VII of the Safe, Accountable, Flexible, Efficient Transportation, Equity Act: A Legacy for Users (SAFETEA-LU) - "The Hazardous Materials Safety and Security Reauthorization Act of 2005" (Pub. L. 109-59), 119 Stat. 1144 (August 10, 2005), amended the Federal hazardous materials transportation law by changing the term "exemption" to "special permit" and authorizes a special permit to be granted up to two years for new special permits and up to four years for renewals.
12. **REPORTING REQUIREMENTS:** Shipments or operations conducted under this special permit are subject to the Hazardous Materials Incident Reporting requirements specified in 49 CFR §§ 171.15 - Immediate notice of certain hazardous materials incidents, and 171.16 - Detailed hazardous materials incident reports. In addition, the grantee(s) of this special permit must notify the Associate Administrator for Hazardous Materials Safety, in writing, of any incident involving a package, shipment or operation conducted under the terms of this special permit.

Issued in Washington, D.C.: Dr. Magdy El-Sibaie, Associate Administrator for Hazardous Materials Safety

Rule Updated Date

May 1, 2014

System Special Instructions

Effective Date: May 1, 2014

[^Top](#)

[Union Pacific Rules](#)

[Instructions for Handling Hazardous Materials](#)

GLOSSARY: Glossary

- [GLOSSARY: Glossary](#)

GLOSSARY: Glossary

Attended – a situation where an employee or authorized representative:

1. Is physically located on site in reasonable proximity to the rail car; and
2. Can and does immediately:
 - a. Respond to any unauthorized access or activity at or near the rail car; or
 - b. Contact law enforcement

Buffer car – a rail car used to meet the hazardous material separation requirements in either switching or train operations. (See Figure 10: Switching Chart, Row C, item 2, first bullet, page 38 or Figure 12: Placement in Train Chart, General Information, item C, page 41.)

Bulk packaging - packaging with capacity greater than 119 gal (450 l) or 882 lb (400 kg), for example: bulk bags, intermodal (IM) portable tanks, portable tanks, portable bins, gondola cars, hopper cars, or tank cars.

Container – any freight container, IM portable tank, portable tank, or portable bin.

Domestic transportation – means transportation between places within the United States other than through a foreign country.

Emergency – Any incident, whether natural or manmade, that requires responsive action to protect life or property from harm, or potential harm (i.e. derailment, and leaking rail car, trailer, or container).

Hazard class - the category of hazard assigned to a material. A class may be subdivided into divisions for clarity. A class may be expressed as a number or with words.

Hazardous material - a substance or material which the Secretary of Transportation has determined to be capable of posing an unreasonable risk to health, safety, and property when transported in commerce. The term "hazardous material" includes hazardous substances, hazardous wastes, elevated temperature materials (HOT or MOLTEN), and marine pollutants.

Hazardous material shipment - a hazardous material in rail cars, trailers, or containers in rail transportation. All hazardous material shipments require shipping papers. When moved in rail cars, trailers, or containers, hazardous material shipments may or may not be placarded or marked with an identification number.

Hazardous material response information - hazard and response information for each hazardous material, contained in either the train documentation or the *Emergency Response Guidebook* (ERG), to assist response personnel at hazardous material incidents.

Hazardous waste manifest - a document specifically for tracking hazardous wastes in transportation. It contains the shipping description and identifies the waste generator, each transporter, and the disposal facility.

Hazard zone - one of four levels of inhalation hazard (Hazard Zones A through D) assigned to gases, and one of two levels of hazard (Hazard Zones A and B) assigned to liquids that are poisonous/toxic by inhalation. For example, when the hazard zone is "A," it is shown on the shipping paper as "Zone A." Zone A is the most hazardous, and Zone D is the least hazardous.

High Threat Urban Area (HTUA) – An area comprising one or more cities and surrounding areas including a 10-mile buffer zone identified by the Department of Homeland Security's Transportation Security Administration (TSA) in 49 CFR 1580, Appendix A. HTUAs will be identified on work orders and train lists as necessary. (See list)

HTUAs include the metropolitan area of the following cities:

Northern Region: Chicago, Denver, Kansas City, Milwaukee, Omaha, St. Louis, Twin Cities.

Southern Region: Baton Rouge, Dallas, Houston, Memphis, New Orleans, Oklahoma City, San Antonio.

Western Region: Anaheim/Santa Ana, San Francisco Bay Area, Las Vegas, Los Angeles/Long Beach, Phoenix, Portland, Sacramento Area, Seattle.

"HZ" Status - A hazardous material shipment that no longer meets DOT hazardous material regulation compliance requirements. **Shipments in the "HZ" status must not continue to move in transportation.** Shipments in "HZ" status can only be released for continued transportation by a UP Hazardous Materials Manager.

Improvised explosive device (IED) - is a device fabricated in an improvised manner incorporating explosives or destructive, lethal, noxious, pyrotechnic, or incendiary chemicals in its design. This device generally includes a power supply, a switch or timer, and a detonator or initiator.

Incident – an occurrence, natural or manmade, that requires a response to protect life or property. Incidents can, for example, include major disasters, emergencies, terrorist attacks or terrorist threats, riots, fires, floods, hazardous material releases, earthquakes, hurricanes, tornadoes, and other occurrences requiring an emergency response

Incidental Release - An incidental release of hazardous materials is a minor spill or release which poses no potential health or safety risk to personnel or property in the immediate area.

Inhalation hazard - term used to identify certain gases and liquids that may cause health problems if inhaled/breathed in very low concentrations for short periods of time.

Interchange - the process of transferring rail cars to or from another railroad.

International transportation – means transportation-

- (1) Between any place in the United States and any place in a foreign country;
- (2) Between places in the United States through a foreign country; or
- (3) Between places in one or more foreign countries through the United States.

Label - a sign, similar to a placard, measuring 4 by 4 inches square-on-point, communicating a hazard by symbol, color, and words or numbers.

Limited quantity (LTD QTY) - a term used on shipping papers to indicate a hazardous material shipment which is allowed an exception to the labeling, packaging, and placarding requirements because the hazard associated with a small package is low.

Marking - a descriptive commodity name, identification number, caution (such as INHALATION HAZARD, HOT, MOLTEN, or MARINE POLLUTANT), or tank car qualification date displayed on hazardous material shipments (see Section IV, pages 28-34 for marking requirements).

One Time Movement Approval – an authorization to move a non-conforming package (one that does not meet the applicable hazardous materials regulations). This Approval provides no relief of any regulations other than specifically stated in the Approval.

N.O.S. - initials, found on shipping papers, which mean "Not Otherwise Specified."

Non-bulk packaging - packaging with a capacity equal to or less than 119 gal (450 l) or 882 lb (400 kg), for example, bags, bottles, boxes, cylinders, or drums.

Non-Incidental Release - A non-incidental (significant) release of hazardous materials is a spill or release which poses, or has the potential to pose, a health or safety risk to individuals and property in the immediate area. Such releases require professionally-trained emergency response (HAZMAT) personnel to respond.

ORM-D (Other Regulated Material - D) - a material such as a consumer commodity that, due to its form, quantity, and packaging, presents such a limited hazard that it is not subject to the hazardous material regulations when transported by rail.

Packing group - a grouping of hazardous materials according to the degree of danger:

- Packing Group I (shown as "PG I" or "I" on the shipping papers) indicates great danger.
- Packing Group II (shown as "PG II" or "II" on the shipping

papers) indicates medium danger.

- Packing Group III (shown as "PG III" or "III" on the shipping papers) indicates minor danger.

Placard - a sign measuring 273 mm (10.8 in) by 273 mm (10.8 in) square-on-point, communicating a hazard by symbol, color, and words or numbers (when displayed). Some placards must be displayed on a square background which is white with a black border (see Figure 4, pages 24-25 for pictures of placards).

Placarded car - a rail car displaying placards in accordance with DOT regulations.

Placard endorsement - a box of asterisks, with or without wording, printed on railroad-produced shipping papers only, to indicate the presence of hazardous material shipments. No longer required by DOT regulations.

Poison/Toxic Inhalation Hazard (PIH or TIH) or Inhalation Hazard - term used to identify certain gases and liquids that may cause health problems if inhaled/breathed in very low concentrations for short periods of time.

Position-in-train document – a document showing the current position of all hazardous material shipments within the train. This document could be the Train List or a separate document specifically for this purpose.

Positive Hand-off of RSSM Shipments – a situation where a RSSM shipment must be:

1. Attended by an employee or authorized representative of both the railroad and the shipper/receiver or interchanging railroad; and
2. Documented by recording the car initial and number, the first and last name of the individual who attended the transfer, the location of the transfer, and the date and time of the transfer.

Protective service - condition associated with mechanical refrigerators where temperature control is required and provided by an internal combustion engine. The internal combustion engine may be controlled by an internal thermostat or remote control via satellite. Protective Service is indicated on the Train List as PS or PROTECTIVE SERVICE.

Rail car – equipment used in rail transportation, for example, box car, flat car, gondola car, hopper car, tank car, or caboose, but not an engine.

Rail Security-Sensitive Material (RSSM) – a shipment of one or more of the categories and quantities below:

1. Rail car, trailer, or container with more than 5,000 lbs (2,268 kg) of Division 1.1, 1.2, or 1.3 (explosive) material.
2. Loaded tank car containing a material poisonous/toxic by inhalation (PIH/TIH), including anhydrous ammonia; and
3. Rail car, trailer, or container containing a Class 7 (radioactive) material moving under the following Hazardous Materials Response Codes – 4929142, 4929143, 4929144, and 4929147.

Residue – the hazardous material remaining in a packaging, including a tank car, after its contents have been unloaded to the maximum extent possible. It is indicated on the shipping papers by the phrase "RESIDUE: LAST CONTAINED" before the proper shipping name.

Security inspection for PIH/TIH shipments - a ground level inspection of a loaded Poison/Toxic Inhalation (PIH/TIH) car for signs of tampering, including its seals and closures, any item that does not belong, suspicious items, or Improvised

Explosive Devices (IEDs).

Shipper's certification - a signed (or electronically printed) declaration on the shipping paper provided by the shipper to the first transporter for a loaded hazardous material shipment. It indicates compliance with the DOT regulations. The certification must be signed by hand or mechanically. It may read either:

"This is to certify that the above-named materials are properly classified, described, packaged, marked, and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation."

or

"I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name, and are classified, packaged, marked, and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations."

Note: A shipper's certification is required on any shipping paper that the customer provides to the crew for loaded hazardous material cars.

Shipping paper - any document providing the appropriate entries for a hazardous material shipment (see Section II, pages 8-15, for shipping paper requirements).

Special permit - a document issued by DOT permitting a person to perform a function that is not otherwise permitted under the regulations.

Switching - the operation of moving rail cars within a yard, at a customer's facility, or at an interchange point, in order to place them in a train or on a classification, repair, or storage track. It does **not** include moving rail cars to or from a shipper's facility or industry track into or out of the yard.

Technical name - a recognized chemical name used in scientific and technical handbooks, journals, and texts to further identify a hazardous material.

Toxic Inhalation Hazard (TIH) - term used to identify certain gases and liquids that may cause health problems if inhaled/breathed in very low concentrations for short periods of time.

Train - one or more engines coupled, with or without rail cars, displaying a marker, requiring an appropriate air brake test, and authorized to operate on a main track. **Note:** This also includes movements on an industrial lead.

Yard - a system of tracks, other than main tracks and sidings, used for making and breaking up trains and for other purposes, such as repair or storage of cars.

Rule Updated Date

May 2, 2016

System Special Instructions

Effective Date: May 2, 2016

[^Top](#)