- Sample Safe Work Procedure Templates These templates may be used to develop task specific safe work procedures for the circumstances involved.

## SAMPLE SAFE WORK PROCEDURES (TEMPLATES)

The Safe Work Procedures (Templates) presented herein are a <u>sample guide to the subject matters</u> and <u>should not be considered as a legal authority</u>. It does not remove, replace, or alter our obligations under any health and safety legislation. These are sample policies and procedures to assist the reader in understanding how policy or procedural information is developed. The sample templates included will not cover every conceivable situation that your worker may encounter. We therefore recommend your supervisors and workers use the templates to develop task specific safety procedures to address the standards of care required for the specific tasks.

In most cases, a Safe Work Procedure (SWP) will provide a systematic process to follow to ensure that all safety considerations and precautions are in place prior to starting the job. It may include sign off sheets, checklists, or other information designed to ensure that every reasonable precaution for the protection of the workers is in place. If a SWP is not available, it is important that work does not proceed until the actual and potential hazards are identified and a course of action is determined and communicated to the workers by the supervisor in charge of the workplace.

If you have any questions or concerns regarding an existing SWP or the absence of a SWP, please advise your supervisor or the main office <u>prior to starting the work</u>. In determining the level of reasonable care (due diligence) required you should;

Determine the gravity of potential harm
Explore the alternatives available
Determine the likelihood of harm occurring
Determine the knowledge, experience and training required for the job
Establish the safety precautions and procedures for implementation
Communicate the safety precautions and procedures to the workers
Establish a monitoring process to ensure these methods are effective
Record any problems or deviations from the procedures established

All employers are required to establish a standard of care appropriate for their work circumstances. Once established, it is also the employer's responsibility to ensure that a program exists to implement the standards contained in the safety program. Prior to establishing safe work procedural standards, the employer must evaluate the risks involved with the work and assess the degree of due diligence required for the circumstances involved. The more hazardous the work, the greater degree of diligence required. Generic safe work procedures are discouraged as they may tend to overlook specific circumstances such as location, weather, knowledge and experience required, time of day, other equipment involved, etc. Tickner and Associates Inc. is available to assist your firm in developing site-specific safe work procedures for the circumstances present.

- Sample Safe Work Procedure Templates These templates may be used to develop task specific safe work procedures for the circumstances involved.

## INDEX TO SAFE WORK TEMPLATES

- Page 1 Introduction
- Page 2 Index
- Page 3 Site Specific SWP Form
- Page 4 Ladder Use
- Page 5 Hygiene & Fire Safety
- Page 6 Fire Safety & PPE
- Page 7 Access & Egress / Housekeeping
- Page 8 Housekeeping & First Aid
- Page 9 First Aid
- Page 10 First Aid
- Page 11 First Aid & Accident Investigation
- Page 12 Accident and Hazard Reporting
- Page 13 Accident Investigation
- Page 14 Accident Investigation and Emergency Response
- Page 15 Emergency Fall Arrest Rescue
- Pages 16, 17 & 18 Fall Protection
- Page 18 Safety Inspections
- Page 19 Tool Box Talks & Tool / Equipment Use
- Page 20 Tool / Equipment Use Guidelines
- Page 21 Vehicle Use
- Page 22 Company Vehicles
- Page 23 Unlicenced Vehicles
- Page 24 & 25 WHMIS
- Page 26 Electrical Safety
- Page 27 & 28 Office Safety
- Page 29 Scaffold Use
- Page 30 & 31 Elevating Work Platforms
- Page 32 Compressed Air Use & Explosive / Powder Actuated Tools
- Page 33 Asbestos Awareness
- Page 34 to 37 Confined Spaces
- Page 38 Personal Conduct at Work
- Page 39 & 40 Painting Operations
- Page 41 Public Protection
- Page 42 Visitors
- Page 43 Working Alone
- Page 43 to 46 Transportation of Dangerous Goods
- Page 47 Temporary Lighting
- Page 48 & 49 Temporary Heating & Traffic Control
- Page 50 New Worker Orientation Checklist
- Page 51 Material Handling
- Page 52 to 56 Mechanical Tag & Lockout
- Page 57 Project Start-Up Checklist
- Page 58 Excavations and Trenching
- Page 59 Demolition

PCM CONSTRUCTION INC.
- Sample Safe Work Procedure Templates These templates may be used to develop task specific safe work procedures for the circumstances involved.

## SITE-SPECIFIC SAFE WORK PROCEDURE

DATE: PROJECT:

SUPERVISOR:	PROCEDURE FOR:
Our supervisor will provide a description of	f the work to be done as well as the actual or
potential hazards that could be encountered discussed with our workers prior to the wor this procedure after they have understood th	k proceeding. The workers will sign off on
Work Description:	
Hazards Involved:	
Safety Precautions:	
Safety Trecautions.	
Other Issues / Concerns:	
with all workers affected by this procedure.	that the above information has been discussed. Please have all workers sign a copy of this anding of the work and associated hazards and

- Sample Safe Work Procedure Templates These templates may be used to develop task specific safe work procedures for the circumstances involved.

## LADDER USE

**Ladders** must be used in accordance with the manufacturer's recommendations for safe use and load limitations. Ladders must be free from defective or loose rungs and side rails, have rungs spaced 12 inches apart at the centres, have side rails spaced a minimum 12 inches apart, shall be placed on a firm and solid base or footing and be set at an angle so that the base of the ladder is one foot away from the wall for every 3 to 4 feet in height. (Example – a 30 foot ladder should be a maximum 10 feet away from the wall and a minimum 7.5 feet away from the wall measured from the base.)

Ladders used as a regular means of access must extend 36 inches above the landing or floor, have a 6 inch minimum clearance behind every rung, be situated so that the landing areas at the top and bottom of the ladder are completely clear of all obstructions and be secured (tied off) at the top and bottom to prevent any movement in the ladder. The maximum length for ladders is 16 feet for trestle ladders or for each of the base and extension sections of an extension ladder, 20 feet for a step ladder, 30 feet for a single ladder or an individual section of a ladder, 50 feet for a 2 section extension ladder and 60 feet for an extension ladder with more than 2 sections.

Stepladder use requires that the legs be fully extended and the spreader bar locked into place. These ladders should be used for short duration work only as they are not designed for long-term use and are not classified as a working platform. Never stand on the top step of the stepladder or the pail shelf. As noted above, make sure the ladder is on a firm and level footing and that the base of the ladder is free from all obstructions.

Falls from ladders continue to be one of the most serious accident causes in the industry so please follow all of the above requirements and refer to the regulations on ladders for any additional requirements or concerns you may have. Never work with a defective ladder or if you are unsure of the assigned work.

Prior to starting your work, determine if using a ladder is the best and safest choice to accomplish the task. Remember that ladders are for short duration work only. This means that if you are going to be on the ladder for greater than 10 minutes you should explore alternative options, such as a scaffold, for doing the work. Sometimes the use of a scaffold is impossible given the work area set-up so if a ladder is your only alternative, you should come down off the ladder on a regular basis for a one-minute rest period and then resume your work.

Make sure the area is clear of debris, equipment and other obstructions, both at the top and bottom of the ladder. Set up and secure the ladder as described in this section prior to beginning your work. If you are using an extension ladder or any ladder higher than 10 feet, have someone hold the ladder in place until you have secured or tied off the ladder for use. If you are working on a ladder at 10 feet or above, you will need to use a fall arrest system secured to a lifeline, secured to an anchor point for the duration of your work at this height.

- Sample Safe Work Procedure Templates These templates may be used to develop task specific safe work procedures for the circumstances involved.

You should inspect your ladder each day prior to use to ensure that it is in good condition. Check for cracks in the rungs or side rails or any other visible defects. Repair or replace any defective ladders. NEVER work on defective ladders. Do not paint ladders, as this tends to hide any possible defects. When transporting ladders, make sure that they are secured properly, either in or on your vehicle. This will prevent them from falling off your vehicle, which can endanger other traffic and/or persons .

## PERSONAL HYGIENE

A fresh supply of clean, potable drinking water must be available at a workplace, as well as sanitary means of drinking the water. A common drinking cup is not permitted at any time. Toilet and washroom facilities must be kept clean and sanitary. A record of the cleaning and maintenance of these facilities should also be kept and be readily available. Separate toilet and wash-up facilities for male and female workers is mandatory.

During the course of your work exposure to a variety of substances that may include chemicals, oils, dirt, germs or other substances is possible. It is essential that prior to eating food or smoking as it applies, that you wash your hands completely using soap and water. Trace amounts of any foreign substance can lead to health problems if you do not clean and sanitize your hands frequently throughout the day and prior to eating / smoking.

If at any time you a foreign object or substance enters into your eyes, seek first aid assistance immediately. For a splash in one or both of your eyes, flush the eye(s) with water for at least ten minutes prior to seeking further assistance. A portable eyewash station should be available if there are no permanent facilities on site. Refer to the appropriate regulations for more information on hygiene requirements.

## FIRE SAFETY AND EXTIGUISHER USE

Fires present very serious dangers to both workers and the workplace. Fires can quickly become out of control and spread rapidly. Fire extinguishing equipment must be readily available at all workplaces, and every worker who may need to use this extinguishing equipment needs training in its proper use and in the limitations of the equipment. There are five classes of fires and each fire extinguisher will be labeled as to what type of fire can be extinguished with that unit. Every employee should be aware of the following classes of fires:

Class "A" fires involve paper, wood, and other ordinary combustibles.

Class "B" fires involve flammable liquids like gasoline, oil, paints and solvents.

Class "C" fires involve energized electrical equipment, wiring, fuses, motors, etc.

Class "D" fires involve combustible metals like magnesium, sodium, or potassium, etc.

Class "K" fires involve greases found in commercial cooking equipment.

- Sample Safe Work Procedure Templates These templates may be used to develop task specific safe work procedures for the circumstances involved.

If you encounter a fire that you feel you can suppress without endangering yourself, make sure you have the correct extinguisher suited for the given type of fire. If the fire is increasing in intensity, vacate the area immediately and wait for emergency response.

# Remember to use the "PASS" system when fighting a fire.

- 1.  ${f P}$ -ULL the pin on the extinguisher to unlock the operating lever
- 2. A-IM the nozzle at the base of the fire
- 3. **S**-QEEZE the lever above the handle to discharge the extinguishing agent
- 4. **S**-WEEP the nozzle from side to side at the base of the fire

If the fire is being suppressed you may carefully approach the fire and continue to extinguish. Continue to watch the area after the fire is out for at least 30 minutes. If the fire becomes unmanageable at any time, vacate the area and call the fire department immediately.

## PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment (PPE) is an essential part of every worker's defence against accidental injury. Although some workers do not like wearing PPE, it provides the required protection for a variety of working situations. The following PPE is required;

- 1. **Hard Hats** A CSA class "B" or "E" hard-hat, worn at all times while on a construction project, is mandatory. The shell must be free from cracks, holes, or other defects. The suspension system must fit securely inside of the shell and must be free from defects and be used and worn in accordance with the manufacturer's recommendations.
- 2. **Safety Shoes or Boots** Must have construction Grade 1 toe protection with sole protection in accordance with CSA standard Z195-M1984. The fully laced shoe or boot must be in good condition and worn in accordance with the manufacturer's recommendations. If there are tears in the outer shell of the boot or shoe, replace them as required.
- 3. **Fall Protection** see fall protection systems section for full description.
- 4. **Eye / Face Protection** May consist of glasses, goggles, or a full-face shield depending on the circumstances. Whenever there is a risk of injury to the eyes or face, eye protection is required. The glasses, goggles, or face shield should fit properly, be in good condition and be used in accordance with the manufacturer's recommendations.
- 5. **Skin Protection** May include protective clothing such as aprons or coveralls, masks, gloves or lotions to protect against chemicals or airborne contaminants in the form of gas, vapours, liquids, dusts, or hot molten substrates.

- Sample Safe Work Procedure Templates These templates may be used to develop task specific safe work procedures for the circumstances involved.
  - Lotions such as sunscreens to protect against radiant heat may also be required. (Excessive exposure to sunlight is an example)
  - 6. **Lifejackets** Any worker who may drown at a project or workplace must wear a lifejacket. A lifejacket is a personal flotation device that provides sufficient buoyancy to keep the worker's head above water, with their face up and without effort by the worker.

## **ACCESS & EGRESS IN THE WORKPLACE**

Access and/or egress points refer to hallways, aisles, stairs, runways, ramps, ladders or any other way a worker gets to their workplace. Keep these areas free and clear obstructions at all times, so that in the event of an emergency, evacuations or rescue operations are not hindered or delayed. The following considerations are required:

Remove snow, ice or other slippery material at the work area.

Sand or salt the areas to assist in keeping ice and snow buildups to a minimum.

Mop up any standing water on floors.

Remove or find alternate storage for boxes, garbage and/or debris.

Tools and equipment should be stored close to the work location and should not be stored in an access / egress route.

Flammable or any other WHMIS-related products should never be stored in an access / egress area.

Use extreme caution when climbing or descending ladders or stairs when wet conditions are present.

Construct runways and ramps that will support all potential loads without displacement or the "diving board spring effect". They should be in good condition without cracks or breaks and be cleated as required.

Extension cords should run at the edge of a hallway or be suspended at the ceiling area to reduce trip and fall hazards and damage to the cords.

Remove dust accumulations on a daily basis to ensure that the atmospheric conditions within the workplace remain at acceptable levels.

## **HOUSEKEEPING AT WORK - GENERAL**

- 1. Work locations, vehicles, buildings, and workstations shall be kept clean and orderly at all times. Keep floors and platforms free of dangerous projections or obstructions, free from oil, grease, or water. Where the type of operation produces slippery conditions, clean the area immediately or employ other methods to reduce the hazard of slipping.
- 2. Work to prevent the falling or tipping of materials store and block materials.
- 3. Keep emergency exits, stairways, aisles, permanent roadways, walkways, and material storage areas clear at all times.
- 4. Materials and supplies shall not be stored in walkways, access doors and fire exits or block access to fire equipment.

- Sample Safe Work Procedure Templates These templates may be used to develop task specific safe work procedures for the circumstances involved.
  - 5. No clothing shall be allowed to hang on walls, behind doors or in the space back of switchboards. No matches shall be left in clothes placed in lockers. Rubbish and unused clothing shall not be allowed to accumulate in lockers or in common areas.
  - 6. Remove waste material and debris from work and access areas on a regular basis or at least once a day. Do not throw waste material and debris from one level to another. Carry or lower it in containers or deposit in a disposal chute.
  - 7. Report any issues related to contamination of the floor, air or environment to your supervisor.

## Flammable & Hazardous Materials

- 1. Keep combustible materials such as oil-soaked rags and waste in approved metal containers.
- 2. Do not use flammable liquids such as gasoline, benzene, naphtha, paint thinner, etc., for cleaning purposes.
- 3. Keep all solvents in U.L / CSA approved and properly-labeled containers. Only handle and dispense gasoline, benzene, naphtha, paint thinner, and other solvents of this class using approved, labeled containers.
- 4. In any building (except one specified for their storage), flammable liquids such as gasoline, benzene, naphtha, lacquer thinner, etc. shall be limited to five gallons in UL / CSA approved properly labeled containers.
- 5. Observe all grounding requirements when pouring, pumping gasoline, or other flammable liquids from one container to another.
- 6. Post and adhere to all "No Smoking" and "Stop Your Motor" signs at fuel dispensing locations.

## FIRST AID RESPONSE & LOGBOOKS

Prompt and correct treatment of injuries, both on and off the job, cannot only reduce pain and suffering, but save lives as well. The following are some basic reminders for first aid: It is recommended that you participate in a first aid and CPR training program prior to rendering any assistance.

## **Bleeding:**

If the injured person is bleeding from an external wound, control the bleeding immediately. Apply direct pressure to the wound with a clean sterile dressing. Never attempt to remove an impaled object from a wound. Keep the injured person in a comfortable position. Elevate the injured body part if possible.

#### **Burns:**

• For minor burns, flush area with cool water. Cover the burn area lightly with a clean, sterile loose dressing and call for medical help. For serious burns, cover the injured area with clean, damp dressings, and get medical help. Do not apply creams, lotions, or ointments. Do not prick or puncture blisters. Do not pull any clothing that is stuck to the burned areas.

- Sample Safe Work Procedure Templates These templates may be used to develop task specific safe work procedures for the circumstances involved.

## **Breathing:**

• If the injured person is not breathing but has a pulse, start artificial respiration immediately. There are various methods available but the most effective is the mouth-to-mouth technique outlined in literature from training agencies.

## **Cardiopulmonary Resuscitation (CPR):**

• If the victim's breathing has stopped and you cannot find a pulse (VSA) start CPR and AR immediately. For adults and children use 30 CPR compressions and two ventilation breaths. You are required to have formal training in the use of these procedures prior to performing CPR.

**Shock** (**Non-Electric**): (Persons suffering from serious injuries may lapse into shock. Signs of shock include drowsiness, paleness, disorientation, clammy skin, and weak pulse. Immediate medical attention is required.)

 Reassure the injured person that help is coming. Place the injured person in the recovery position if possible. Otherwise, place injured person in a comfortable position that allows for easiest breathing and loosen clothing around neck, waist, and chest. Keep the injured person warm.
 Watch for signs of breathing trouble.

## **First Aid Kits:**

Every workplace and company vehicle shall have a first aid kit. The size and contents will vary (refer to specific regulations) to suit the needs and number of employees at the workplace. Every worker must know where the closest First Aid kit is located and who is trained in First Aid & CPR. Post First Aid Certificates in a conspicuous location.

## **Extreme Temperature (Cold):**

The human body senses and compensates for temperature changes. Tools such as protective clothing, altered work procedures, artificial heat or wind barriers, etc. will assist in maintaining constant body temperatures. Hypothermia results when the body continues to lose heat and the core body temperature drops as involuntary shivers begin. This is the body's way of attempting to produce more heat and it is usually the first warning sign of hypothermia. Many cases of exposure have occurred in temperatures well above freezing. How cold the body gets depends on many factors, not just air temperature.

Heat loss from convection (wind-chill) is probably the greatest and most deceptive factor in loss of body heat. The wind chill index is probably the best known and most widely-used cold-stress index. Anyone facing exposure to low temperature and high wind should consult the wind chill index. The dead air space between the warm body and clothing and the outside air is essential. Many layers of relatively light clothing

- Sample Safe Work Procedure Templates These templates may be used to develop task specific safe work procedures for the circumstances involved.

with an outer shell of wind-proof material maintain body temperatures much better than a single heavy outer garment worn over ordinary indoor clothing. Make sure clothing allows some venting of perspiration. Wet skin will freeze more rapidly than dry skin.

Because metal will conduct heat away from the body quite rapidly, be very careful of skin contact with metal objects. When stranded during a storm in a vehicle, it is better to stay with the vehicle. Be careful of carbon monoxide if the motor is running.

If travel is in areas where storms are frequent, emergency supplies should be available to meet any weather conditions (i.e. food, blankets, shovel, candles and cell phone or other communication device when possible). If a worker is traveling into remote areas, someone at the office should be aware of the travel plans.

## **Extreme Temperature (Heat)**

A normal body temperature is 37°C (98.6°F). A healthy person acclimatized to his or her environment can maintain a normal temperature by conserving heat in the cold and by dissipating heat when it is hot. When a person is in poor health or exposed to extreme heat, maintaining a temperature balance stresses the body. Prolonged exposure can cause heat cramps, heat exhaustion, or heatstroke. A healthy person adapts more readily to hot climates, but everyone needs to moderate physical activities, maintain body fluids, and guard against over-exposure.

## **Treatment:**

• Place the injured worker at rest in a cool place. Give the conscious person small sips of water as tolerated. Transport to medical aid.

## **Heat Exhaustion**

Occurs when excessive sweating causes a depletion of body fluids and when conditions prevent the evaporation of sweat to cool the body. This critical occurrence may cause the internal organs or the brain to shut down to protect them. All workers should be aware of the symptoms of heat exhaustion. The symptoms of heat exhaustion may include dizziness, fatigue, and slurred speech.

#### **Treatment:**

 Place the injured person in a cool place with feet and legs elevated. Loosen tight clothing. Remove excessive clothing. Give conscious injured person small sips of water as tolerated. Place unconscious injured person in recovery position. Monitor breathing. Call 911 for transport to medical aid.

#### Heatstroke

Occurs when there is prolonged exposure to a very hot environment with poor ventilation or overexposure to the hot sun. Sweating ceases, temperature rises rapidly and can be fatal unless the body temperature can be lowered to near normal. High body temperatures, fatigue, slurred speech, dizziness and hot dry skin indicate

- Sample Safe Work Procedure Templates These templates may be used to develop task specific safe work procedures for the circumstances involved.

heatstroke. In some cases, an injured person of heat stroke may begin to shiver. The high internal body temperatures may cause the internal organs and the brain to shut down to protect them against the heat.

## **Treatment:**

 Place person in a cool place. Remove excess clothing. Place person in cool bath or sponge / douse with cool water. Monitor body temperature closely. Monitor breathing. Call 911 for transport to medical aid.

**First Aid Logbooks** are required to record all information related to first aid treatment rendered in the workplace. A record must show the person's (s) name, date of injury/treatment, the treatment rendered, treatment location, time of treatment, the name of the person who provided the treatment, and the names of any witnesses to the injury. Record the above information in the first aid logbook each time treatment is administered. This facilitates follow-up on the person's condition and verifies that an incident did occur should they require further medical treatment. Post valid **First Aid Certificates** of all trained workers on a notice board in a conspicuous place, preferably near the first aid room or in the workplace main office.

The contents of the First Aid Kit shall be **inspected** a minimum of once every three months (ideally, once every month) to ensure the contents comply with the provincial First Aid Regulations. Record the inspections on a card that includes the date of inspection and signature of the inspector. Post the card next to the first aid kit.

## **ACCIDENT INVESTIGATIONS**

## ACCIDENT CATEGORIES

The following categories of injuries are for your knowledge as each one has requires specific recording and reporting information.

- 1. **First Aid** refers to treatment for a minor injury that will not require the attention of a doctor or other qualified medical practitioner. Examples may include a minor cut or scrape.
- 2. **Medical Aid / Health Care** refers to an injury that will require a doctor's attention or the attention of another qualified medical practitioner. These injuries will not result in lost time from work but they must be reported to both the WSIB and the MOL within specified timeframes.
- 3. **Lost Time Injury** refers to an injury that will result in the injured worker missing one or more days of work, after the date of injury.

- Sample Safe Work Procedure Templates These templates may be used to develop task specific safe work procedures for the circumstances involved.
- 4. **Critical or Fatal Injuries** refers to extreme circumstances when a worker is killed or critically injured. A critical injury is any injury that:
  - a) places life in jeopardy
  - b) produces unconsciousness
  - c) results in a substantial loss of blood
  - d) involves the fracture of a leg or arm, but not a finger or a toe
  - e) involves the amputation of a leg, arm hand or foot, but not a finger or a toe
  - f) causes burns to a major portion of the body

## **ACCIDENT & HAZARD REPORTING**

The following reporting requirements are for your knowledge, as each one has specific recording and reporting information required. Any employee suffering any of the following occurrences (except critical/fatal injuries) must report as follows:

- 1. First Aid cases must be immediately reported to your supervisor, or their designate, and they will record the required information in the first aid logbook.
- 2. Medical Aid / Health Care cases must be immediately reported to your supervisor, or their designate They will ensure prompt medical attention and, if required, transportation to a medical facility and initiate an investigation into the causes of the accident. The WSIB and the MOL must be notified within specified timeframes.
- **3**. **Lost Time Injury** cases are very serious, as the injured person will require time off work to recuperate. Immediately report the injury to your supervisor in order that they can arrange for prompt medical attention, transportation to a medical facility and initiate the investigation into the causes of the accident. The WSIB and the MOL must be notified within specified timeframes.
- **4**. **Critical or Fatal Injuries** present extremely stressful conditions and must be handled by trained personnel. The WSIB and the MOL must be notified within specified timeframes. If you are first on the scene, the following crisis management steps must be followed:

Send someone to notify the supervisor immediately,

If qualified to do so, render first aid until help arrives,

Send someone to **call 911** to report the accident and request an ambulance,

Send someone to guide the ambulance to the scene,

Send someone to call our main office to activate our crisis response,

Stay with the injured person until the supervisor arrives or the ambulance arrives,

Turn the scene over to the supervisor once they have arrived,

Restrict access to the accident scene, (other than Emergency personnel / MOL),

Rope off the accident area for the accident investigation team,

Notify the Safety Representative or JH&SC and union (if any),

- Sample Safe Work Procedure Templates These templates may be used to develop task specific safe work procedures for the circumstances involved.
- **5**. **Hazard Reporting** requires that all workers report any hazardous situation, including an unsafe act or condition, to their immediate supervisor. The supervisor shall investigate and resolve the condition as required and advise the worker of those steps. The worker may also advise his/her JH&SC member or WTC member.

## **ACCIDENT INVESTIGATION**

The process of investigating any accident, illness, fire, explosion, or spill is for the sole purpose of establishing the causes of the occurrence and then implementing corrective action to eliminate or reduce the risk of another similar occurrence. We will investigate every personal injury accident that requires medical attention, any reported occupational illness, major equipment or machine damage, and any incident with the potential for serious injury or property destruction (including near misses). Reports required by the WSIB or MOL reporting the circumstances surrounding the occurrence shall be completed within the specified timeframes. It is impossible to complete the WSIB and MOL forms without a proper accident investigation into the facts of the case.

Our investigations will establish **who** was involved, **what** happened, **when** it happened, **where** it happened and **why** it happened. In most cases, your immediate supervisor is responsible for conducting the investigation and completing the required investigation paperwork. If an injured worker <u>does not report</u> their accident, we will be unable to file the necessary reports on their behalf.

Critical or fatal injury investigations are conducted in conjunction with one or more members of our senior management team, as well as a certified member of the Joint Health and Safety Committee. We may also request assistance from outside specialists in this area to ensure that we are in full compliance with OH&S reporting requirements. We ask that you respect the serious nature of these types of situations and refrain from interfering with the investigation process. If you are a witness to an occurrence of this nature, please identify yourself as such to the person in charge of the scene.

## **ACCIDENT INVESTIGATION STEPS**

Written statements and pictures of any accident scene will be required along with the supervisor's / investigator's findings. Through your cooperation, we will be able to process the required forms and documents on a priority basis. An action plan will be developed drawing from the conclusions of the investigation. The steps involved in investigating any accident are as follows:

**1.** If it involves a personal injury accident, provide immediate first aid or medical attention as required.

- Sample Safe Work Procedure Templates These templates may be used to develop task specific safe work procedures for the circumstances involved.
- **2.** If it involves an equipment failure, or once the person has been removed from the site, begin your investigation by noting the time of day, weather conditions, accident location, person(s) involved, witnesses to the accident, machines or equipment involved, and what the worker(s) was doing at the time of the accident.
- **3.** Establish the injured worker's (s) name, address, telephone number, occupation, and number of months or years employed by our company for the report.
- **4.** Describe, in writing, the accident scene (or photograph) in detail and proceed to question all those in the vicinity at the time, including witnesses, and those involved in the incident. Record eyewitness accounts in writing and have the witness(es) sign their statement once it is complete.
- **5.** Questions should be asked in the following sequence: **what** happened, **what else** was going on at the time of the accident, **who** was involved, **when** did the accident happen, **where** did the accident happen, what where the possible **causes** of the accident?
- **6.** Remember that the purpose of the investigation is to establish facts, not to draw any conclusions during the investigation process. We are not investigating to establish the guilt of any individual or individuals.
- **7.** Any witness statement should be signed by the person providing the statement. If they would like a copy of their statement, provide one.
- **8.** In all cases of serious, critical or fatal injuries, rope off the accident location and keep all workers out of the area until the investigation is completed. In this case, the MOL and other emergency personnel will be on scene and the MOL will release the scene once they have finished their investigation. **DO NOT DISTURB THE ACCIDENT SCENE.**
- **9.** Once your investigation is complete, file it with our main office immediately and keep a copy for your records. Any additional information required will be requested within 24 hours. Each investigation will be reviewed at the next JH&SC meeting.

## EMERGENCY RESPONSE PROCEDURES

Emergency procedures and response actions will provide order during an otherwise confusing emergency, including, but not limited to, fire, power failure, gas leak, chemical spill, crime prevention and workplace violence. Prior to a project commencing, post the emergency contact numbers and directions to the nearest hospital. Post the certificates of those trained in first aid alongside the emergency numbers and hospital routes. The supervisor must train and familiarize his/her workers in the site emergency procedures. The supervisor should also review the locations of the project's evacuation routes, gathering points and emergency alarms. Once the workers are familiar with the routes of access/egress for the site, the supervisor will designate a "Gathering Point". During an evacuation alarm, this is the point where ALL employees and/or visitors will gather for a headcount by the supervisor and receive any information or instructions regarding the emergency. A competent worker will perform the shutdown process of specific equipment, hydro, gas, etc. in the event of an emergency.

The supervisor shall have all employees and/or visitors sign a training roster to acknowledge their understanding of the emergency procedures. It is both the supervisor's and employee's responsibility to review and be aware of the nearest emergency

- Sample Safe Work Procedure Templates These templates may be used to develop task specific safe work procedures for the circumstances involved.

evacuation routes prior to starting work. In the event of a serious accident or emergency, senior management will make any official statements to anyone requesting a formal statement.

Re-entry into an evacuated area is not permitted until the site supervisor, under the guidance of the appropriate authority (Fire Department, Police, MOE, etc.), has deemed the workplace suitable for re-entry.

## EMERGENCY FALL ARREST RESCUE PLAN

The supervisor shall have all workers, sub-contractors and/or visitors sign a training roster to acknowledge the emergency rescue plan. If a Fall Arrest System arrests a worker's fall and you are first on the scene, the following crisis management steps apply:

#### **Conscious Worker**

- 1. Send someone to notify the supervisor/constructor immediately.
- **2.** Communicate with the worker; calm the person.
- **3.** If accessible and safe to do so, place a ladder or use an Elevating Work Platform under the person to allow him/her to climb down safely.
- **4.** If qualified to do so, render first aid until help arrives.
- 5. If it is unsafe for you to easily rescue an arrested worker call 911.
- **6.** Never risk your safety to rescue a worker, wait for the Fire Department.
- 7. Send someone to guide the Emergency Services to the scene.
- **8.** Send someone to call our main office to activate our crisis response.
- **9.** Stay with the injured person until the supervisor or Emergency Services arrives.
- **10.** Turn the scene over to the supervisor once they have arrived.
- 11. Restrict access to the accident scene, (other than Emergency personnel / MOL).
- **12.** Rope off the accident area for the accident investigation team.
- 13. Notify the Safety Representative or JH&SC and union (if any).

## **Unconscious Worker**

- 1. Call 911 immediately.
- 2. Send someone to notify the supervisor/constructor immediately.
- **3.** If they become conscious, keep the worker calm and follow the procedures for a conscious worker.
- **4.** If accessible and safe to do so, place an Elevating Work Platform under the person to support and remove from their Arrest System.
- **5.** If qualified to do so, render first aid until help arrives.
- **6.** If it is unsafe for you to properly rescue an arrested worker wait for the Emergency services to arrive.
- 7. Never risk your safety to rescue a worker wait for the Fire Department.
- **8.** Send someone to guide the Emergency Services to the scene.
- **9.** Send someone to call our main office to activate our crisis response.

- Sample Safe Work Procedure Templates These templates may be used to develop task specific safe work procedures for the circumstances involved.
  - **10.** Stay with the injured person until the supervisor or Emergency Services arrives.
  - **11.** Turn the scene over to the supervisor once they have arrived.
  - **12.** Restrict access to the accident scene, (other than Emergency personnel / MOL).
  - **13.** Rope off the accident area for the accident investigation team.
  - **14.** Notify the Safety Representative or JH&SC and union (if any).

## **FALL PROTECTION SYSTEMS**

Training is mandatory prior to any use of a fall protection system. Valid proof of training in the form of a training card is the only acceptable evidence of this training. Your supervisor will discuss fall hazards on site as required. Your supervisor will arrange for update training as required. Head office will monitor and communicate the success of this program on an annual basis. Upgrade training through toolbox talks and other meetings will be ongoing.

**Types:** Guardrail System - Protective Cover System - Travel Restraint System - Fall Restrictive System - Fall Arrest System

## **Requirements:**

Use a fall protection system if a worker is exposed to any of the following hazards:

- **1.** Falling more than 3 metres. (10 feet)
- **2.** Falling more than 1.2 metres (4 feet), if the work area is used as path for a wheelbarrow or similar equipment.
- **3.** Falling into operating machinery.
- **4.** Falling into water or another liquid.
- **5.** Falling into or onto a hazardous substance or object.
- **6.** Falling through an opening on a work surface.

A **Guardrail System** shall be used if a worker has access to the perimeter of an open side of any of the following work surfaces and is exposed to a fall of 2.4 meters (8 feet) or more:

- 1. A floor, including the floor of a mezzanine or balcony.
- **2.** The surface of a bridge.
- **3.** A roof while formwork is in place.
- **4.** A scaffold platform or other work platform, runway or ramp.

A guardrail system shall consist of a top rail, intermediate rail and toe board. A guardrail system may have the intermediate guardrail replaced by a material that can withstand a point load of 450 Newtons, (101 lbs force), applied in a lateral or vertical downward direction. If the guardrail system is located at the perimeter of a work surface, the distance between the edge of the surface and the guardrail system shall not be greater than 300 millimetres (1 ft). A guardrail system may be removed temporarily to perform work in or around the opening if a worker is adequately protected and signs are posted.

- Sample Safe Work Procedure Templates These templates may be used to develop task specific safe work procedures for the circumstances involved.

A **Guardrail System** shall be capable of resisting anywhere along the length of the system the following point loads when applied separately, without exceeding the allowable unit stress for each material used:

- 1. 675 Newtons applied in a lateral direction to the top rail.
- 2. 450 Newtons applied in a vertical downward direction to the top rail.
- **3.** 450 Newtons applied in a lateral or vertical downward direction to the intermediate rail, or midway between the top rail & the toe board.
- **4.** 225 Newtons applied in a lateral direction to the toe board.
- **5.** If the distance between any two adjacent posts of the guardrail system is greater than 2.4 metres (8 feet), the system shall be capable of resisting the required loads specified.
- **6.** The wood shall be free of sharp objects such as splinters and protruding nails.

A **Protective Cover** shall be used to prevent a worker from falling through an opening on a work surface. Completely shield the opening with a cover that is securely fastened and identified as a hole cover. The cover shall be made from a material that is adequate to support all loads to which the cover may be subjected. The cover must be capable of supporting a live load of at least 2.4 Kilopascals (50 psf) without exceeding the allowable unit stresses for the material used. A protective covering may be removed temporarily to perform work in or around the opening if a worker is adequately protected and signs are posted. If it is not possible to install a guardrail system as previously defined, a worker shall be adequately protected by a travel restraint system, a fall restricting system, fall arrest system, or a safety net.

The **Travel Restraint System** shall consist of a full body harness with adequate attachment points or a safety belt. The full body harness or safety belt shall be attached by a lifeline and/or lanyard to a fixed anchor point. A competent worker shall inspect the system before each use. All defective components shall be removed and tagged as "out of service". This system does not allow for a fall of any nature and, second to a guardrail system, should be considered as the next most ideal method of protection.

The **Fall Restrictive System** shall consist of an assembly of components that is designed and arranged in accordance with the manufacturer's instructions so that a worker's free fall distance does not exceed 0.6 metres (2 feet) and is attached to an independent fixed support. A competent worker before each use shall inspect the system. All defective components shall be removed and tagged as "out of service".

The **Fall Arrest System** shall consist of a full body harness with adequate attachment points and a lanyard equipped with a shock absorber or similar device. The system shall be attached by a lifeline or by the lanyard to an independent fixed support / anchor point. The system shall be arranged so that a worker cannot hit the ground or an object on a level below the work. A shock absorber shall not be used if it allows the worker to hit the ground or an object or a level below the work. The system shall not expose a worker who falls to a peak fall arrest force greater than 8 kilonewtons (1,800 lb force).

- Sample Safe Work Procedure Templates These templates may be used to develop task specific safe work procedures for the circumstances involved.

Before each use, a competent worker shall inspect the system. All defective components shall be removed and tagged as "out of service".

All the above systems shall be designed by a professional engineer in accordance with good manufacturing practices and shall meet the National Standards of Canada. All workers shall be trained in fall prevention systems before engaging in any work that requires their use.

A **Fixed Support** is a permanent anchor system that is installed according to the Building Code. A **Temporary Fixed Support** used in a fall arrest system that is capable of supporting a static force of at least 8 kilonewtons (1,800 lb force) without exceeding the allowable unit stress for each material used.

If a shock absorber is used in the fall arrest system, the temporary fixed support shall be capable of supporting a static force of at least 6 kilonewtons (1,350 lb force) without exceeding the allowable unit stress for each material used.

A temporary fixed support used in a fall restricting system must be capable of supporting a static force of at least 6 kilonewtons (1,350 lb force) without exceeding the allowable unit stress for each material used.

A temporary fixed support used in a travel restraint system that is capable of supporting a static force of at least 2 kilonewtons (450 lb force) without exceeding the allowable unit stress for each material used.

A Professional Engineer shall design all Horizontal Lifelines. A Professional Engineer or a competent worker designated by the supervisor shall inspect the lifeline before each use. The drawings for the lifeline shall be kept on the site as long as the system is in use.

The **Vertical Lifeline** must be made of synthetic rope type and have a diameter of a least 16mm (5/8"). All lifelines must be CSA approved. A knot shall not be used to secure a lifeline to an anchor. A knot may be used to ensure a rope grab does not slide off the vertical lifeline. If during your inspection you find cuts, loose fibres, water damage or damage at the thimbles, the lifeline shall be removed and tagged as "out of service".

All workers who may use a fall protection system shall be adequately trained in its use and given adequate oral & written instructions by a competent person. A written copy of the training & instruction record for fall protection shall be kept on site and a copy forwarded to senior management. Before any use of a fall arrest system or a safety net by a worker at a project, the worker's supervisor shall develop written procedures for rescuing the worker after his or her fall has been arrested.

## **SAFETY INSPECTIONS**

The supervisor, or a competent in-house staff member trained in the inspection process, may conduct the planned safety inspections. Alternately, we may choose to have a third-party professional conduct the inspections to verify our level of compliance. The

- Sample Safe Work Procedure Templates These templates may be used to develop task specific safe work procedures for the circumstances involved.

supervisor or third-party professional shall perform planned inspections of all machinery, tools, and equipment, including the fire extinguishing system, personal protective equipment, magazines, electrical installations, communication systems, sanitation and medical facilities, buildings and other structures, temporary supports, and means of access and egress at the project to ensure that they do not endanger any individual or property.

Employee use of machinery, tools, and equipment shall also be inspected. These planned inspections shall be done on a timely basis (usually weekly) with a record of the findings maintained. Unplanned supervisor inspections shall occur on a daily or per-shift basis. As the supervisor carries out his or her daily functions, he/she shall remain alert and record any unsafe working conditions and practices. The supervisors shall be in contact with the employees throughout the workplace inspection through discussions, job observation, or written memos.

The practice of planned and unplanned inspections is to be applied to all offices, buildings, sites, or other work locations under our control. The supervisor's inspections shall be used to promote safety and to identify and/or control hazards. The supervisor shall use this information to review the safe work policies, procedures, and rules and to discuss their findings at the regular toolbox meetings.

Copies of the inspections and follow-up recommendations will be distributed to the entire supervisory/management team and to the JH&SC. For both planned and unplanned inspections, a follow-up system must be in place to ensure that corrective action has been taken for each hazard or problem noted. In most cases, corrective action is immediate. Senior management will review the information annually to ensure that all hazards have been acted upon and that a plan has been developed to reduce future potential hazards.

Each supervisor must conduct weekly, planned inspections and daily or per-shift unplanned inspections and record their findings. The supervisor shall include the location of the project, areas inspected, date, and the inspector's signature. The inspection will be filed on site with a copy forwarded to the senior management member responsible for safety. These inspections are separate from the safety representative's or JH&SC's inspections. Pre-start-up inspections shall be performed prior to the start-up of a machine or piece of equipment, or prior to shift take-over/release.

## TOOLBOX TALKS

The Toolbox Talk is an important part of any organization's safety program. The toolbox meetings promote safety, identify and/or control hazards, review rules and discuss work methods/procedures. A site supervisor must arrange these meetings and attendance is mandatory for all site employees of the organization.

Each supervisor must conduct regular toolbox meetings with their assigned crews and record the minutes of the meetings. The supervisor shall have all employees sign a roster

- Sample Safe Work Procedure Templates These templates may be used to develop task specific safe work procedures for the circumstances involved.

to acknowledge the meeting. The minutes will be filed on site with a copy forwarded to the senior management member responsible for safety.

The minutes record should indicate the date and time of the meeting, all those in attendance, the topics discussed and any future plans for action. The topics should relate to the specifics of the work on site and any safety precautions that are required for the work. It is also a good idea to review safe work procedures and the current condition of equipment on site. All safety issues or concerns for attention should be given top priority.

## TOOL / EQUIPMENT USE & INSPECTION

To reduce the risk of employee injury or property damages, the use of all equipment & tools, in accordance with the manufacturer's instructions and Occupational Health & Safety Act/Regulations, is mandatory.

Update equipment and tool maintenance logs as necessary. Inspect and maintain all equipment as per the manufacturer's specifications and keep these records on file at our office. Management and supervisors are responsible for ensuring that competent employees perform routine inspections, service, and maintenance (where and when qualified to do so) including the proper documentation filed with their supervisor. Certified mechanics or electricians will perform work on tool / equipment systems that require a licensed tradesperson.

Employees shall perform a visual inspection of all equipment & tools prior to use. Each operator and/or end user of the equipment will maintain a personal log of these inspections. Any equipment that is damaged or in need of repair shall be immediately removed from service, tagged "Do Not Operate" and returned to the supervisor for repairs or disposal.

## **GUIDELINES & CONSIDERATIONS**

- 1. An operator's manual and/or instruction book, for all equipment, must be at the workplace, near the equipment and/or process area. The operator must be familiar with its contents regarding safe operation.
- **2.** An operator shall be trained and competent in the safe use of any (powered) equipment.
- **3.** A maintenance log must be kept at the workplace showing repairs, dates and identifying the machine repaired.
- **4.** Re-fuelling operations for equipment must be performed outdoors.

- Sample Safe Work Procedure Templates These templates may be used to develop task specific safe work procedures for the circumstances involved.
  - **5.** A load rating identification plate must be located on every machine and stamped on the appropriate component parts indicating load capacities.
  - **6.** No equipment, load, or tool shall pass over any individual.
  - **7.** All equipment and tools must be used in accordance with the manufacturer's instruction manual.
  - **8.** All permanent station machinery shall have a clearly marked and accessible emergency shut off button / switch.
  - **9.** Prior to any repairs or maintenance, lock out & tag out procedures must be established and followed.
  - **10.** Always remove and lock out the power source prior to making any adjustments.
  - **11.** Exposed moving parts shall be guarded as required by regulation.
  - **12.** All equipment & tools shall meet the standards established by CSA and the manufacturer and be maintained in good condition.
  - **13.** No worker shall remove any protective device or guard from a machine, tool, or equipment for any reason.
  - **14.** Grinding disks / wheels shall be compatible with the speed of the equipment or tool. The disks / wheels shall be inspected daily. If cracks, cuts or chips are visible, the disk / wheel shall be removed and replaced.
  - **15.** Ground Fault Circuit Interrupters (GFCI) shall be used where electrical shock is a hazard, for work outdoors or in damp / wet conditions.
  - **16.** Extension cords & cord-connected electrical equipment shall be inspected for cracks in the outer casings or outer insulation on a daily basis. Any cords or equipment with cracks or cuts in the casing shall be removed for repairs.
  - **17.** All cord-connected equipment shall be equipped with a ground pin and/or a GFCI system.

Note: Please refer to the Occupational Health & Safety Act, Regulations and the manufacturer's specifications for safe use information and specifics on the equipment or tool you are using.

- Sample Safe Work Procedure Templates These templates may be used to develop task specific safe work procedures for the circumstances involved.

## **VEHICLE USE FOR COMPANY BUSINESS**

Any worker operating a vehicle during the course of their employment shall:

- 1. Provide a copy of their license and insurance to the office.
- 2. Operate the vehicle safely, abiding by all traffic rules and regulations set out by the Ministry of Transportation and the Highway Traffic Act.
- 3. Wear their seat belts while the vehicle is moving.
- 4. When the vehicle is a company vehicle, the vehicle must be checked daily and have the appropriate maintenance logs onboard.
- 5. If the vehicle is a personal vehicle the proper maintenance and visual checks should be done to ensure the vehicle's safety and roadworthiness.
- 6. The vehicle's operating manual must be with the vehicle at all times.

## DAILY VEHICLE CIRCLE CHECK - The vehicle circle check should include:

Fluid level checks,

Engine review,

Check all belts for wear, tension and cracks,

Tire pressure and inflation as per manufacturer's specification,

Tire tread patterns are within safe and acceptable limits,

Fuel levels are sufficient for the intended travel,

All lights, signals, and horns are operating properly.

## **LICENCED VEHICLES – (Company)**

To reduce the risk of employee injury or property damage, it is a requirement that all licenced company vehicles be operated in accordance with the manufacturer's instructions and in accordance with the Occupational Health & Safety Act/Regulations and all provincially and federally regulated transportation laws. All licenced company vehicles shall be inspected and/or maintained as per the manufacturer's specifications and the documentation shall be forwarded to the office to be kept on file.

Management and supervisors are responsible for ensuring that the licenced company vehicles are routinely inspected, serviced, and maintained with the proper documentation filed with the office. Only an approved, licenced mechanic shall inspect, service and maintain the vehicles. The office shall maintain a copy of the operator's driver's licence.

Employees shall be able to provide proof of a valid driver's licence when required. Employees shall perform a visual inspection of their company vehicle prior to the beginning of every shift and a circular check prior to every use. A personal log detailing the inspection shall be kept on file. Any vehicle condition that may pose a hazard to a driver shall be immediately reported to the supervisor for repairs and the vehicle shall be serviced prior to further use.

- Sample Safe Work Procedure Templates These templates may be used to develop task specific safe work procedures for the circumstances involved.

## **GUIDELINES & CONSIDERATIONS**

Access to any project site shall be in accordance with the local transportation regulations. Obey all traffic control signalers and devices as required.

Do not use or operate any owner-, contractor- or subcontractor-licenced vehicle and/or mobile equipment without the authorization of a supervisor.

Park in designated areas. Parked vehicles shall not block roadways or service driveways, doorways, loading bays, dumpsters and/or fire hydrants or hoses or emergency access routes.

Fuel tanks on vehicles shall not be filled while the engine is running. The driver shall remain with the vehicle and smoking is strictly prohibited during the refueling.

Material that overhangs the sides or ends of a truck shall be secured & red-flagged.

Trucks hauling waste materials shall be equipped with an adequate rear closure and/or covering to prevent material from dropping or blowing onto the roadway.

Vehicles are prohibited from transporting more passengers than its designed allows for.

When a vehicle is in motion, all materials being transported shall be secured as per the manufacturer's instruction.

Winch trucks shall not have a load suspended form the hook while traveling. The load shall be secured on the bed of the truck. The hook of a winch truck must be secured while traveling.

Unless impossible, vehicles shall move in a forward direction at all times on a project.

## **UNLICENCED VEHICLES**

All unlicenced vehicles shall be operated in accordance with the manufacturer's instructions and in accordance with the Occupational Health & Safety Act/Regulations. All unlicenced vehicles shall be inspected and/or maintained as per the manufacturer's specifications and the documentation shall be forwarded to the office to be kept on file.

Management and supervisors are responsible for ensuring that unlicenced vehicles are routinely inspected, serviced, and maintained with the proper documentation filed with the office. Employees shall provide proof of competency for using the unlicenced vehicle when required. Employees shall perform a visual inspection of their vehicle prior to the beginning of every shift and a circular check prior to every use. A personal log detailing

- Sample Safe Work Procedure Templates These templates may be used to develop task specific safe work procedures for the circumstances involved.

the inspection shall be kept on file. Any vehicle condition that may pose a hazard to a driver shall be immediately reported to the supervisor for repairs.

## **GUIDELINES:**

All operating manuals and logbooks shall be available at the project. The safety design capacity of any mobile equipment shall not be exceeded, nor shall the equipment be modified in any manner that alters the original factor of safety and capacity. Mobile equipment shall be fitted with suitable alarm and motion sensing devices including backup alarms and/or a flashing light where and when required.

Where there is a potential risk of contact by any mobile equipment with a structure or an individual, a competent signaler shall be assigned to control the movement.

Under no circumstances shall any mobile crane or crane load come within 10ft. of any energized overhead power line or other critical structure. A competent signaler shall direct the operation if any part of the mobile equipment travels close to this 10ft restricted area of an overhead power line. When mobile equipment is traveling onto a public thoroughfare or roadway, a competent flag (signal) person shall ensure traffic has stopped prior to accessing or egressing.

Vehicles shall escort mobile equipment traveling on a public thoroughfare or roadway with signs warning of slow-moving equipment. Other escorts may also be required.

Natural and synthetic fibre rope made of material such as manila, nylon, polyester, or polypropylene shall not be used as slings on mobile equipment.

Only trained, qualified, and authorized personnel shall operate mobile equipment. Contractor personnel shall not operate owner equipment unless specific authorization has been approved.

Never leave the controls of a machine unattended while the machine is running.

Operators should familiarize themselves with the operating criteria on a regular basis and prior to use if it has been more than 30 days since the operator's previous use.

Vehicles must always be parked in a manner that does not endanger other traffic or workers. Vehicles should always be driven or moved at a rate of speed which enables the move to be completed safely and efficiently and in a forward motion only. Equipment should always have the forks or buckets lowered to the ground when not operating.

- Sample Safe Work Procedure Templates These templates may be used to develop task specific safe work procedures for the circumstances involved.

## HAZARDOUS MATERIALS AND WHMIS

WHMIS - Workplace Hazardous Materials Information System. It is a Canada-wide system used to provide information about all controlled products (chemicals and compressed gases as an example) used by workers on the job. There are three essential elements to WHMIS:

Labels

Material Safety Data Sheets (MSDS')

Education and training

**WHMIS** is for your protection. It describes the dangers associated with controlled products and/or materials you may use on the job and instructs you how to protect yourself from the hazards. You have the right to know if material has hazardous ingredients, labels and safety data sheets.

#### Labels

All controlled products must have a label that identifies the product and includes:

Name of the product

WHMIS hazard symbol

Classification

Risk factor

Precautions

First Aid Instructions

MSDS Referral

Name of Supplier

#### **Material Safety Data Sheets:**

Gives the following detailed information of a product and its hazards:

**Product information** 

Hazardous ingredients

Physical data

First aid measures

Specific Gravity

Fire and explosion data

Toxicological properties

Reactivity data

Preventive measures

Preparation date and group

## **Training:**

All workers must receive updated WHMIS training every year.

- Sample Safe Work Procedure Templates These templates may be used to develop task specific safe work procedures for the circumstances involved.

## **Electrical Safety**

## **Tagging and Lockout Procedures**

Lockout / tagging procedures are an important requirement during any activity when a piece of equipment or system represents a potential hazard to life or property.

- 1. The minimum procedure is drawn from existing codes, statutes, and/or manufacturer's specifications. The most stringent of the instructions, rules, or regulations apply with respect to tagging and lockout procedures.
- 2. Employees shall follow written job procedures for lockout / tagging as directed by their supervisor or as outlined by the site-specific tag and lockout procedure.
- 3. Only the person who placed a lock and tag on a system may remove it. No one else has the authority to remove safety locks.
- 4. When multiple tags and locks are required, a multiple lock clamp should be used to ensure that the system is not re-energized until all locks are removed.
- 5. All tags and locks must be placed at the primary source of the energy whenever possible. If this is not always possible, the locks should be placed as close to the primary energy source as possible. The primary energy source must also be flagged and monitored to prevent re-energizing the system prematurely.

## **General Electrical**

- 1. When work is being done on or near live exposed parts of installations, equipment, or conductors, the workers shall wear the proper personal protective equipment and have a written SWP in place.
- 2. No employee shall open or close any circuit unless he / she is thoroughly competent and has full knowledge concerning the circuits affected and given ample warning to other workers who may be endangered.
- 3. The worker shall stand on the opposite side to the hinge of a switch box when opening or closing a circuit.
- 4. The worker shall never use their bare fingers to determine a live wire.
- 5. Do not work on conductors until you know the voltage.
- 6. Do not depend on the insulating cover of wires.
- 7. Electrical equipment and lines shall always be considered as being "live". Always test, isolate, and ground prior to your work.
- 8. The worker shall never use steel rules near energized systems.
- 9. Never wear jewellery or other metal objects while working on energized systems.
- 10. Fuse pullers or rubber gloves shall be used to insert or extract fuses.
- 11. Whenever possible, disconnect and de-energize power before working on any electrical equipment.
- 12. When it is absolutely necessary to work on or near live "circuits", always place yourself in a position so that a shock or slip will not bring you in contact with live parts (2nd point of contact).
- 13. Portable electrical tools shall be effectively grounded, protected, or be of "double-insulated" construction.

- Sample Safe Work Procedure Templates These templates may be used to develop task specific safe work procedures for the circumstances involved.
- 14. The casing and frame of portable electric generators shall be effectively grounded.

## **OFFICE SAFETY**

You are required to work in a safe manner every day including in the office environment. The following issues are for your review:

- 1. Workers shall report all injuries, regardless of severity, to the supervisor in charge.
- 2. Workers shall walk cautiously up and down stairs; the handrail shall be used whenever possible.
- 3. Caution shall be exercised when walking around blind corners.
- 4. Running is not permitted at any time.
- 5. Walkways shall be kept clear of materials or furniture that may cause tripping or act as a barrier to an escape route.
- 6. Ensure that you are fully aware of exits & escape routes.

## Lifting and Carrying

- 1. A worker shall obtain assistance in lifting heavy objects.
- 2. Bulky objects shall not be carried in such a way as to obstruct the view ahead or interfere with free use of handrails or stairways.
- 3. Large boxes or bundles of supplies shall be moved by a hand truck or unpacked and delivered in smaller parcels.

#### **Doors**

- 1. Doors shall be opened slowly to avoid striking anyone on the other side of it.
- 2. Doorways must never be blocked with equipment or materials.

## **Ladders and Step Stools**

- 1. Workers shall use a set of steps or a ladder when required to place or obtain objects in elevated locations.
- 2. Material shall be piled in a stable manner.
- 3. Ladders and platforms shall be examined before use; treads and safety feet on ladders shall be provided with non-slip material in good condition.
- 4. Boxes, chairs, etc. shall not be used in place of ladders.

## **Sharp Instruments**

- 1. Knives, scissors, letter openers, pens and pencils, etc. shall be kept at the front of desk drawer where they can be seen when drawer is opened.
- 2. Care shall be exercised when using staplers, punches, or paper cutters.
- 3. Immediate first-aid treatment is essential for all cuts and puncture wounds regardless of severity.

- Sample Safe Work Procedure Templates These templates may be used to develop task specific safe work procedures for the circumstances involved.

## **Filing Cabinets**

- 1. Drawers of desks and file cabinets shall be kept closed when not in use.
- 2. Only one drawer of a file cabinet shall be pulled out at a time in order to avoid instability or tipping of the cabinet.

## **Fire Protection**

- 1. Smoking is permitted in designated areas only.
- 2. No worker shall hinder access to fire extinguishers or exits.
- 3. Each worker shall note the location of fire extinguishers, exits, and fire alarms and shall be knowledgeable in the use of each.
- 4. It is the responsibility of each fire warden to ensure that all workers are knowledgeable in fire protection and evacuation procedures.
- 5. Workers discovering fires shall sound the alarm:
  - (i) Provided that the fire is of a small nature, a trained worker will attempt to extinguish it.
  - (ii) If there is any danger from this procedure, all workers shall evacuate the building immediately.
- 6. All workers shall exercise good housekeeping habits, not allowing waste, paper, rags, or other combustible material to accumulate.
- 7. There will be "No Smoking" inside buildings where Municipal By-Laws apply.

## **Office Equipment**

- 1. Unsafe electrical cords, faulty electrical or other equipment, or any other hazardous conditions shall be reported to your immediate supervisor.
- 2. Workers shall not attempt to clean, oil or adjust any machine that is running.
- 3. If a running machine is not equipped with a starting switch that can be locked in the "off" position, it shall be disconnected from its power source.
- 4. Chemicals used in office copiers or other equipment shall be stored in proper containers, in proper storage areas and handled with due care.
- 5. Appropriate personal protective equipment (goggles, aprons, gloves) shall be worn when handling chemicals necessary for office functions.
- 6. Loose-fitting clothing, dangling bracelets, rings and ties may cause serious injury to workers operating or working around power driven machines (paper shredders, copiers, etc.) and shall not be worn.

- Sample Safe Work Procedure Templates These templates may be used to develop task specific safe work procedures for the circumstances involved.

## **SCAFFOLD USE**

**Scaffold use** indicates that you will be working at an elevated height and requires that you take all necessary precautions to avoid accidents. Every scaffold must be designed, constructed and configured to support or resist 2 times the maximum load or force which it is likely to be subjected to, without exceeding the allowable unit stresses for the materials the scaffold system is made of and 4 times the maximum load or force to which it is likely to be subjected without overturning. No scaffold should ever be loaded in excess of its maximum load capacity. Every scaffold system shall be used in accordance with the manufacturer's specifications and have all required components secured in place. This includes all horizontal and diagonal bracing, horizontal members secured with no splices between the points of support, footing or sills or supports capable of supporting 2 times the maximum load that the scaffold will be subjected to without settlement or deformation that will affect the scaffold's stability.

In addition, all fittings and gear including base plates or wheels as per the manufacturer's instructions, connecting devices between the frames that provide positive engagement in tension and compression, all safety catches, clips and/or pins as required shall be secured at vertical intervals not exceeding 3 times the least lateral dimension measured at the base. Scaffolds mounted on castors or wheels shall have working brakes for each wheel and the brakes shall be applied and locked when a worker is on the scaffold. Scaffold systems should be inspected on a daily basis by a competent worker, with a record of the inspection maintained for reference and records. A competent worker must supervise the erection, alteration and dismantling of any scaffold system.

A scaffold or other work platform shall be at least 18 inches wide, be fully planked if it is a scaffold system and the working platform shall be 8 feet above ground level. A guardrail system must be in place, have a separate means of access and egress (a secured ladder), not have any unguarded openings and shall have each component of the platform secured against slipping from its supports. Wooden planks used for platforms shall be Number 1 Grade Spruce, 2 inches thick by 10 inches wide, arranged so that their span is not greater than 7 feet, arranged so that the overhang is not less than 6 inches and not more than 12 inches and have cleats or other mechanism employed to secure the planks from slipping. Reference to the regulations for additional information is encouraged.

Prior to assembling and erecting the scaffold, review the work area to assess the ground conditions and determine what additional requirements might need to be administered. After the location has been determined, ensure that the ground conditions are as level and firm as possible prior to erecting the scaffold. If set-up is on rough ground, use sills that extend the full length of each frame section rather than blocking under each foot. Nail the base plate to the sill to ensure that it does not move while in use. Set up each section

- Sample Safe Work Procedure Templates These templates may be used to develop task specific safe work procedures for the circumstances involved.

of scaffold, including all hardware, clips, pins and bracing one section at a time. Fully plank the mainframe of the first level prior to erecting additional sections.

Make sure that the bottom level is square and level and that there are no bent frames in use. If you are erecting more than two sections (lifts) of scaffold, fall arrest must be worn once you are at the second platform level. The erection or dismantling of 2 or more lifts of scaffold should always require 2 workers. As indicated on page one of this section, a secured ladder must be used to gain access to all levels.

Continue to erect each section of scaffold making sure that you secure, level and square each section. Tie-in the scaffold to the project or building when the scaffold height is 3 times the least lateral dimension measured at the base of the scaffold; this will provide additional structural support for the scaffold system. As the scaffold erection continues, install all required guardrail systems. Make sure that the platforms are secured with cleats or by using another process to secure the planks. If you are using pre-fabricated platform sections, check the hooks to ensure that they are not cracked, bent or deformed in any way prior to use. If they are, do not use them and return them to our shop for repair or replacement. The platforms should always be installed in accordance with the engineering design and/or manufacturer's instructions.

If you are using a wheel-mounted, rolling or "Baker" scaffold system on a firm or indoor ground/floor surface, you must ensure that the wheels have working brakes and that the brakes are applied and locked when you are on the scaffold. Do not "SURF" or move the scaffold while standing on it, as it is not designed for this procedure.

## **ELEVATING WORK PLATFORMS**

**Elevating Work Platforms** (EWP) are motorized vehicles and must be used in accordance with all operating instructions provided by the manufacturer in their operating manual. No worker shall operate an EWP unless they have received training in the safe operation of the equipment, understand the limitations of the equipment, and have read the operating manual. An EWP must meet the applicable National Standards of Canada standards and support a minimum 300-pound rated working load.

A worker who has been fully trained and is competent to operate the EWP shall inspect the EWP each day before use. This worker must have received written and oral instructions on the machine's use, be familiar with the manufacturers instructions, understand the load limits for the machine, understand by demonstration the correct use of all controls and understand the surface limitations for operating the EWP.

EWP shall be equipped at all times with a full guardrail system. In addition, the EWP must have at the controls of the device, a rated working load, all limited working conditions including the proper use of outriggers, stabilizers and extendable axles, the

- Sample Safe Work Procedure Templates These templates may be used to develop task specific safe work procedures for the circumstances involved.

specifics on firm level working surfaces required for all use, and any warnings from the manufacturer on use. Also, the direction of movement for each operating control, the name and number of the National Standards of Canada standard to which it was designed and the name and address of the owner must be displayed. The EWP must be maintained by the owner to ensure that the safety factors are maintained to the original design. The owner must keep records of all inspections, tests, repairs, modifications and maintenance for as long as the machine is in use and this must include the signature of the person involved in any of the above-noted tests etc.

An EWP shall never be loaded in excess of its rated working capacity and shall be used on a firm level surface in accordance with all of the manufacturer's written instructions. It should not be loaded or used in a manner that will affect its stability or endanger a worker and shall never be moved unless all workers on it are protected against falling by a safety belt or harness attached to the platform. Reference to the regulations for additional information is encouraged.

Prior to using an Elevating Work Platform (EWP), make sure you are comfortable with all required operating requirements as set forth in the manufacturer's operating instructions. If it has been more than 30 days since you last used an EWP, it is suggested that you spend a few minutes reviewing the EWP manual prior to use. If you are not qualified to operate the EWP do not use it.

Review the work area and all intended paths of travel to ensure there are no obstructions or floor / ground conditions, which could affect the stability of the machine. Make sure that the guardrail system is intact and that all operating instructions and warning signs at the controls are legible. If equipped with outriggers, stabilizers, warning alarms and/or a flashing light make sure that these components are operational prior to use. You will need to have a safety belt and lanyard (as a minimum) if you intend on moving the machine from one location to another or when elevating the machine. Once you are on the EWP make sure the chain or restraining device at the open end is secured in place.

Always drive the EWP slowly and pay strict attention to the path of travel. If workers are in the area, move the machine only when they are clear. Once you have arrived at your next work location, elevate the platform to the work area. Never stand on the mid-rail or top-rail of the guardrail system as this presents a serious fall hazard. If you cannot reach the area to complete your work, you will require a written SAFE WORK TEMPLATE to identify the steps to be taken prior to continuing. If you will be performing any open flame operations such as welding or soldering, you must have a fire extinguisher on the EWP and a fire watch below.

When your work is complete and you will be moving to another location, it is recommended that you lower the machine to its lowest point and then drive the machine to its new location. This will ensure that the centre of gravity is at its lowest point and will provide maximum protection against rollover. When lowering the EWP, make sure that there are no workers below the EWP. If the EWP hydraulics fail at any time or the

- Sample Safe Work Procedure Templates These templates may be used to develop task specific safe work procedures for the circumstances involved.

elevating device becomes stuck in an elevated position, call for assistance, stay in the machine and do not attempt to climb down the machine. If this occurs, the machine must not be used until it has been repaired and re-certified for use.

## **COMPRESSED AIR USE**

Air-powered tools used in construction range from stapling guns to jack hammers. These tools can be dangerous if you do not use them as outlined in the manufacturer's specifications. The following is a list of rules that you must adhere to when using compressed air:

- 1. Never use compressed air to blow debris or to clear dirt from clothing.
- 2. Ensure that the air pressure has been turned off and the line pressure relieved before disconnecting the hose or changing tools.
- 3. Any hose that may whip shall be attached to a rope or chain to prevent whipping.
- 4. Wear personal protective equipment including eye protection / face shields and ensure other workers in the area are made aware of or have restricted access to the hazard area.
- 5. Hoses shall be checked on a regular basis for cuts, bulges, or other damage. Ensure that defective hoses are repaired or replaced and all inspections and maintenance repairs are documented.
- 6. A proper pressure regulator and relief device shall be included in the system to ensure that correct pressures are maintained.
- 7. The correct air supply hoses shall be used for the tool / equipment being used.
- 8. The equipment shall be properly maintained according to the manufacturer's requirements and maintenance shall be documented.
- 9. Follow the manufacturer's general instructions for use and maintenance and comply with legislated safety requirements.

## EXPLOSIVE / POWDER ACTUATED TOOLS

The manufacturers of these devices provide detailed instructions regarding their use and maintenance. You must read, understand, and abide by all manufacturers' specifications for use and maintenance prior to operating an explosive / powder actuated tool. The following general recommendations apply to all explosive / powder actuated tools:

- 1. Only properly trained and qualified operators are to use this type of tool. The user shall possess proof of this training issued by the manufacturer, authorized dealer / distributor, or other competent source.
- 2. The tool shall be CSA Standard approved for "Explosive/Powder Actuated Fastening Tools".
- 3. The tool shall be loaded just prior to use with the correct load for the job anticipated.
- 4. Tools should never be loaded if being moved to an alternate work site.

- Sample Safe Work Procedure Templates These templates may be used to develop task specific safe work procedures for the circumstances involved.
- 5. The tool should never be pointed at anyone whether loaded or unloaded.
- 6. Hands should be kept clear of the muzzle end at all times.
- 7. Explosive powder actuated tools shall always be stored in their proper lockable boxes.

Explosive powder actuated tools shall never be used in an explosive atmosphere. When used, the tool shall be held firmly and at right angles to the surface being driven into. Unload the tool after use and prior to transport or storage. The operator shall wear eye and hearing protection at all times. To prevent free-flying fasteners, ensure that the material being driven into will not allow the fasteners to pass through it (i.e. glass block, hollow tile, etc.) Manufacturers' recommendations should be consulted and followed whenever uncertainty arises regarding the material being driven into, maintenance procedures or load strength to be used. Always be aware of other workers. Where a hazard to other workers is created by this operation, signs and barricades identifying the hazard area are mandatory.

## **ASBESTOS AWARENESS**

Asbestos fireproofing and insulation is common in many older buildings. Disturbing this material during construction, renovation, maintenance, or restoration can cause friable material (hazardous dusts) to become airborne. The following precautions are required:

- 1. When any material found on a job site appears to be or resembles asbestos, workers shall immediately stop work and notify their supervisor in order to facilitate testing to determine the nature of the material.
- 2. Once the material has been tested and identified, the supervisor will make the decision on how to proceed using site-specific safe work procedures designed specifically for the work and based on the findings of the tests conducted.
- 3. If asbestos is found during your work or after the testing noted above, it will require abatement (removal), encapsulation, or specific safe work procedures prior to continuing the work. This SWP will address where the asbestos is located, the type of asbestos (silicates, actinolite, amosite, anthophyllite, chrysotile, crocidolite, or tremolite) and the precautions necessary for working in or around the type of asbestos found.
- 4. Prior to working in or around asbestos, each worker must understand the conditions they will be working in, the appropriate measures and procedures for their work, the required PPE to be worn, how to clean the PPE after each use and the limitations of the PPE.
- 5. If an SWP is required, a specific procedure shall be written for each circumstance.

- Sample Safe Work Procedure Templates These templates may be used to develop task specific safe work procedures for the circumstances involved.

## **CONFINED SPACES**

A confined space has restricted access or egress and has the potential to become hazardous due to oxygen-deficient, oxygen-enriched areas or by accumulations of gas, fumes or vapours within that area. All confined spaces must be identified as such.

An assessment report shall be completed in writing by a competent worker prior to commencing any confined space work, as detailed in provincial Occupational Health and Safety Legislation. You must never enter the area until this test has been completed, the results made available, and the proper site specific procedure is put in place. All required permits must be obtained prior to entering the confined space.

When the assessment findings demonstrate an unsafe environment, written procedures shall be implemented to correct the hazardous situation within the confined space. The confined space shall be re-tested by a competent person after each hazard has been eliminated. The written report will remain on the site of the confined space until the work in the area is completed and will be available for anyone who wants to review the results of the tests.

Where possible, mechanical venting must be set in place and the space must be continuously monitored or ventilated while workers are in the confined space. When entering a confined space you must wear a lifeline. The worker in the confined space shall also have a communication device that allows him to speak with others that are outside the confined space. A competent worker, trained in first aid and CPR, must be posted outside of the confined space at the entrance and be prepared and equipped to provide assistance if required. They also must be familiar with the site-specific confined space procedure.

Prior to entering a confined space the following must be addressed:

- 1. The confined space shall be tested as required by OH&S law.
- 2. The confined space shall be purged and ventilated to provide an atmosphere that is safe for any worker prior to their entering the space.
- 3. An emergency rescue plan shall be established in writing and be posted prior to any entry. All workers must be trained in confined space entry and in the emergency procedures.
- 4. The person stationed outside of the confined space shall be trained in rescue operations and have an emergency alarm readily available.
- 5. No worker shall be present in a confined space that contains or is likely to contain any explosive or flammable gas, dust, mist or vapours unless a full and detailed entry plan and SWP have been established.

- Sample Safe Work Procedure Templates These templates may be used to develop task specific safe work procedures for the circumstances involved.
- 6. The atmosphere inside of the confined space shall be monitored at all times using the testing equipment appropriate for the risks involved. Monitoring of oxygen content is required at all times to assist in the detection of "Oxygen Deficient" or "Oxygen Enriched" environments.
- 7. Proper and due consideration shall be given to all tools and equipment that shall be used in a confined space. Tools or equipment that emit toxic or gas vapours, sparks etc. shall not be used in a confined space unless a full entry, work and rescue plan is in place and all workers are aware and trained in these plans. Where atmospheric conditions are of concern, the appropriate PPE shall be reviewed, selected, inspected, and used in accordance with all manufacturers' recommended operating protocols.
- 8. A register of all workers entering the confined space shall be established including all emergency information for the worker(s). This register shall be kept on site for the duration of the work involved.

A sample confined space entry permit is provided for your reference.

- Sample Safe Work Procedure Templates These templates may be used to develop task specific safe work procedures for the circumstances involved.

# SAMPLE ENTRY PERMIT FOR CONFINED SPACES A separate permit is required for every confined space

1. Today's Date: Permit No	
(yyyy / mo / day)  2. Location of Confined Space:	
(address / city / province)	
3. Description of Work:	
4. Time Period for Entry:	
(start time and finish time)	
5. Workers Involved:	
6. Each worker's location during work process:	
7. List of Monitoring & Rescue Equipment Available:	
8. List of Actual and Potential Hazards in the Confined Space:	

# PCM CONSTRUCTION INC. - Sample Safe Work Procedure Templates These templates may be used to develop task specific safe

work procedures for the circumstances involved. 9. Health & Safety Precautions/Equipment: 10. Atmospheric Test Results: (date and time taken / results / qualified person's signature for each sample) 11. Verification Sign-off: (sign-off by all persons involved that plan and requirements are in place) 12. Competent Person Sign-off: (signature of one or more competent persons verifying that entry complies with the plan) 13. Identify Qualified First Aid Responders: 14. Emergency Response and Rescue Plan: (ensure the emergency plan has been reviewed and signed by all those involved) 15. Hot Work Permits: (Where & when required) (signatures from all workers involved in the entry plan) 16. Other Considerations:

- Sample Safe Work Procedure Templates These templates may be used to develop task specific safe work procedures for the circumstances involved.

# PERSONAL CONDUCT AT WORK

# **Riding on Equipment**

No worker shall ride on any piece of equipment unless he/she is occupying a seat designated for such a purpose and is specifically trained in the operation of that piece of equipment.

# Horseplay

No worker shall engage in any activity that may be a hazard to co-workers, the public, the work area, or the environment.

# **Fighting**

Fighting will not be tolerated at any time by any employees with co-workers, supervisors, or the public. Any worker caught fighting will be subject to immediate dismissal.

### **Theft**

Any worker caught stealing tools, equipment, materials, or supplies from the company or suppliers will be subject to immediate dismissal. The matter will be referred to the proper authorities for possible investigation and prosecution.

### **Substance Abuse**

If any worker is suspected or caught using any illegal or controlled substances, disciplinary action will ensue. See the Substance Abuse Policy located in Part A of this Manual.

# Misuse or Destruction of Equipment and/or Property

Any misuse or abuse of tools, equipment, property, vehicles, or supplies will result in immediate disciplinary action. All of the items mentioned above must be used in the manner for which they were intended and as per manufacturer's specifications.

# Insubordination

At no time will insubordination be tolerated. All workers are required to listen to and abide by the directions of their supervisors, managers, superintendents and any other personnel that have authority over them; this extends to Ministry of Labour, Ministry of the Environment, Police, Fire, and EMS officials. Any worker failing to abide by this rule will face immediate disciplinary action.

- Sample Safe Work Procedure Templates These templates may be used to develop task specific safe work procedures for the circumstances involved.

### Harassment

Harassment is a very important issue at work. At no time will any worker harass any other worker, a client or member of the public physically, sexually, or emotionally. When an incident of harassment is reported it will be taken very seriously and will be investigated thoroughly. If the allegation is found to be true, you will face immediate discipline up to and including dismissal. If the harassment includes unwanted contact you will be dismissed immediately and the issue will be forwarded to the proper authorities for appropriate investigation.

If you are the victim of any type of harassment, report it immediately to your supervisor or the appropriate person in charge (providing they are not involved in the allegation). Your allegation will be taken seriously and you will be treated with the respect, dignity, and confidence that you deserve.

# **PAINTING OPERATIONS**

# **Hand Painting Operations:**

All employees painting with brushes are required to wear the proper personal protective equipment. This includes eye protection and respiratory protection in the case of alkaloid-(oil) based paints. Proper precautions related to ladder or scaffold use must be followed. Public barriers must be set up as per the public and visitor access procedure found in this manual.

### **Painting Operations using Compressed Air:**

Compressed air painting tools can be dangerous if not used as outlined by the manufacturer's specifications and instructions. When painting with the use of compressed air tools the following rules must be understood and complied with:

- 1. Never use compressed air to blow debris or to clear dirt from any worker's clothes.
- 2. Ensure that the air pressure has been turned off and the line pressure relieved before disconnecting the hose or changing tools.
- 3. Any hose that may whip when disconnected shall be attached to a rope or chain to prevent whipping.
- 4. Wear personal protective equipment including eye protection, face shields, respiratory protection and ensure other workers in the area are made aware of, or have restricted access to, the hazard area.
- 5. Hoses will be checked on a regular basis for cuts, bulges, or other damage. Ensure that defective hoses are repaired and/or replaced and all inspections are documented.
- 6. A proper pressure regulator and relief device shall be in the system to ensure that correct pressures be maintained.

- Sample Safe Work Procedure Templates These templates may be used to develop task specific safe work procedures for the circumstances involved.
  - 7. The correct air supply hoses in relation to the tool / equipment being used.
  - 8. The equipment shall be properly maintained according to the manufacturer's requirements and maintenance shall be documented.
  - 9. Follow the manufacturer's general instructions for use and maintenance and comply with legislated safety requirements.

# **Cleaning Brushes and Equipment with Solvents:**

Cleaning solvents are used in day-to-day construction work to clean tools and equipment. Special care shall be taken to protect the worker and the environment from hazards that may be created from the use of these liquids. Wherever possible, solvents should be non-flammable and non-toxic. The supervisor shall be aware of all solvents / flammables that are used on the job and ensure that all workers who use these materials have been instructed in their proper use and any hazard they pose. MSDS on all cleaning solvents shall be readily accessible by all workers in contact with the chemical(s).

The following safe work practices apply when solvents/ flammables are used:

- ➤ Use non-flammable solvents for general cleaning.
- ➤ When flammable liquids are used, hot work is not permitted in the area.
- ➤ Store flammables and solvents in approved storage areas in well-marked containers as per the regulations.
- ➤ Check toxic hazards of all solvents before use (read the MSDS).
- Provide adequate ventilation in areas where solvents and flammables are being used.
- ➤ Use goggles or face shields to protect the face and eyes from splashes or sprays.
- ➤ Use rubber gloves to protect the hands.
- Wear protective clothing to prevent contamination of worker's clothes and skin exposure.
- ➤ When breathing hazards exist, use the appropriate, fitted respiratory protection.
- ➤ Never leave solvents in open containers. Return them to storage drums or tanks.
- Ensure that proper containers are used for transportation, storage and field use of solvents / flammables and are properly labeled.

- Sample Safe Work Procedure Templates These templates may be used to develop task specific safe work procedures for the circumstances involved.
  - ➤ Ensure that all employees using WHMIS products or in the vicinity of use/storage are trained in the Workplace Hazardous Materials Information System. Ensure all WHMIS requirements are met.
  - Disposal of waste shall satisfy all applicable legislation and environmental requirements.

# VISITORS AND PUBLIC PROTECTION

### **Public Protection & Access**

Wherever possible our firm will protect the public from accessing our work area using caution tape or barrier rails. When the area in question cannot completely be protected from public access, proper precautions must be in place.

When overhead work is taking place the area shall be cordoned off so that no member of the public may walk under the overhead activity. Proper signs shall be erected to inform the public that overhead activities are taking place.

When floors are slippery, have debris, have openings or uneven floor surfaces, the workers shall maintain the best possible housekeeping to minimize the risk of slip, trip, or fall hazards. Barriers and signs shall be erected to inform the public of the hazard. If there is a high level of noise, reduced lighting or electrical hazards present, proper signs shall be posted outlining the risk.

Tools and equipment shall never be left unattended where the public has access to them.

- Sample Safe Work Procedure Templates These templates may be used to develop task specific safe work procedures for the circumstances involved.

### **Visitors:**

Any visitor entering a work area shall immediately report to the supervisor responsible for that area. All visitors are expected to comply with all safety requirements of that area and may not enter the area in question until they are made aware of their responsibilities. Responsibilities of the visitors are found in the policies section of this manual. If they do not have the appropriate safety equipment, our firm will either provide them with proper equipment or they shall not enter the area.

If a visitor reports a safety concern it will be immediately reported to the supervisor and they, along with the health and safety representative, will investigate the concern and act upon it accordingly. All visitors are required to notify the supervisor when they are leaving the area or site to ensure their safety. They must also return any personal protective equipment provided to them by the company at that time. First-time visitors to the company will be required to read and sign the visitor's code of conduct, shown in the sample below.

### **Visitor's Code of Conduct:**

I will sign in and sign out each time I visit,

I will wear and clearly display my visitor's badge (where required) at all times,

I will report any accidents immediately (within 5 minutes) to the person I am visiting, or senior management, regardless of the severity,

I will use and wear any necessary personal protective devices supplied,

I will never engage in any form of negligence or visit in an unfit manner.

I will never wander the company's property and/or building alone,

I will avoid restricted areas unless I am accompanied by the appropriate personnel and have the proper authorization to enter such areas,

I will conduct my visit in a manner that is safe and does not endanger myself or any worker,

Signature of Visitor	——————————————————————————————————————

- Sample Safe Work Procedure Templates These templates may be used to develop task specific safe work procedures for the circumstances involved.

# **WORKING ALONE**

When it is necessary for you to work alone, you should ensure that your immediate supervisor is aware of your location, activities, and projected time of completion.

When working alone you should keep contact with the supervisor or dispatch/answering service and inform the dispatch of start, stop, and completion timelines for the work. When possible, you should try to communicate with a supervisor or dispatch on a predetermined schedule throughout the day. Communication when working alone is very important. You should ensure that you always have the ability to communicate with someone whenever required.

Preplanning every job is always an important practice but is especially imperative if you will be working alone. Always ensure that you are aware of the emergency exits and access ways to and from the work location. Also, make yourself aware of the locations of fire extinguishing equipment and the alarm locations.

Establish a plan of what needs to be done and the estimated time it will take to complete your work. This should be communicated to your office or supervisor to ensure they have an approximate timeframe for your work completion. Check in with your supervisor immediately after the work has been completed to advise them of your status. This should be done in addition to the pre-arranged call-in times.

It is also essential to advise other parties that you are in the area and the approximate location and duration of your work. If a telephone number for the location is available, ensure that your supervisor or office has the number.

# TRANSPORTATION OF DANGEROUS GOODS (GUIDELINE)

# **Classes of Dangerous Goods:**

- **Class 1** Explosives
- Class 2 Gases.
- **Class 3** Flammable liquids.
- **Class 4** Flammable solids.
- **Class 5** -Oxidizing substances and organic peroxides.
- Class 6 Poisonous and infectious substances.
- **Class 7** Radioactive materials.
- Class 8 Corrosive substances.
- **Class 9** Miscellaneous dangerous goods.

General requirements are for the transport of goods that are greater than 500kg (total mass). Less than 500 kg is considered Low Threat Consignment and does not require the following applications.

- Sample Safe Work Procedure Templates These templates may be used to develop task specific safe work procedures for the circumstances involved.

# **General Requirements**

- 1. Only workers who are trained or under the direct supervision of a trained person may handle or transport any dangerous goods relative to their assigned duties.
- 2. All trained workers will be issued a certificate of training.
- 3. Certificate of training must be renewed every three years and a record must be kept for five years by the trainer.
- 4. The shipper shall ensure that the shipping document contains all the required information.
- 5. The carrier shall ensure that the document accompanies the consignment.
- 6. The driver shall insure that one copy of the dangerous goods document is kept in a pocket mounted on the driver's door.
- 7. Dangerous goods transported in a van or pick-up truck shall be accompanied by the proper documents as required under the Transportation of Dangerous Goods Act.
- 8. No person shall transport dangerous goods that are contained in a cylinder unless the cylinder is securely stored in or on that means of transport.
- 9. An approved carrier shall perform all transportation of large quantities of hazardous goods (i.e., have the supplier deliver to site).

# **Gasoline and Other Highly Flammable Liquids**

- 1. Shall not be carried in the passenger compartment of a vehicle.
- 2. Shall be carried and stored in approved containers, with properly fitted caps, and shall be prevented from over turning.
- 3. Shall only be used when adequate ventilation is in place.
- 4. Shall be provided with a fire extinguisher in transporting vehicle.
- 5. Shall not be used as a cleaner.
- 6. Gasoline engines shall be shut off and allowed to cool before refueling.

# **Compressed Gases:**

- 1. Care shall be exercised in handling all compressed gas cylinders. They shall not be dropped, jarred, or exposed to temperature extremes.
- 2. Cylinders shall have the valve cap or valve protection device in place at all times except when in actual use.
- 3. Cylinders shall not be rolled and shall not be lifted by the valve or valve cap; a suitable cradle or other device shall be used.
- 4. Compressed gas cylinders, whether full or empty, shall be stored or transported in an upright position and chained or otherwise secured so they cannot fall or be upset.
- 5. Oxygen cylinders in storage shall be separated from fuel-gas cylinders or combustible materials (especially oil or grease) a minimum distance of 6M or by a 1.5M high non-combustible barrier.
- 6. Cylinders shall not be placed where they might become part of an electrical circuit.

- Sample Safe Work Procedure Templates These templates may be used to develop task specific safe work procedures for the circumstances involved.
- 7. Hydrogen and fuel-gas cylinders shall not be stored inside any operating building. Separate storage buildings or sheltered storage areas shall be used.
- 8. Employees shall never force connections that do not fit nor shall they tamper with the safety relief devices of cylinder valves.
- 9. Cylinders shall be protected from sparks, flames, and contact with energized electrical equipment.

# Oxygen and Acetylene

- 1. Leather gauntlet gloves and workers using an oxyacetylene cutting torch shall wear goggles with the proper shade of lenses.
- 2. Oxygen and acetylene shall be stored and transported in a secured upright position.
- 3. Cylinders shall be stored in a well-ventilated area with an overhead cover to protect from the weather.
- 4. Protecting caps shall be in place when cylinders are moved or are not in use.
- 5. Cylinders shall be racked when being hoisted.
- 6. Leaking gas cylinder shall be shut off, placed outdoors, and reported to the supervisor.
- 7. Keep away from heat over 54 C or 130 F.
- 8. Empty cylinders and full cylinders shall be stored separately.
- 9. Check joints with soapy water or commercial leak detector when connecting regulators to cylinders.
- 10. Oil, grease, or similar materials shall not be allowed to come in contact with any valve, fitting, regulator, or gauge on oxygen cylinders.

### **Propane**

- 1. Propane is heavier than air (Specific Gravity Greater than 1.00) and will settle in low areas such as trenches, manholes, and sumps. The bottles shall be checked for leaks and low-lying areas shall be analyzed for gas build-up.
- 2. Cylinders shall be kept upright unless designed for horizontal use.
- 3. Cylinders shall be stored in a well-ventilated area away from heat.
- 4. Only approved hoses and fittings shall be used.
- 5. Always use soapy water or commercial leak detector when checking for leaks in propane systems.

# Hydrogen

- 1. Special precautions shall be taken when using hydrogen to avoid the possibility of fire and explosion.
- 2. "DANGER NO SMOKING" and / or "OPEN FLAMES" signs shall be posted where hydrogen is used or stored.

- Sample Safe Work Procedure Templates These templates may be used to develop task specific safe work procedures for the circumstances involved.

# Chlorine

- 1. Chlorine containers shall be stored and properly secured in a cool place and protected against moisture.
- 2. Every precaution shall be taken to prevent accidental discharge of the gas.
- 3. Protective equipment shall be readily available for use in an emergency.
- 4. Chlorine cylinders shall never be used or stored near flammable materials.
- 5. Should a chlorine leak develop, the cylinder shall be placed so that only "gas" escapes. (An ammonia swab may be used to detect leaks.)
- 6. Water shall not be sprayed or poured on chlorine leaks.

# Nitrogen

While nitrogen is not toxic or flammable, it could be hazardous if large quantities were present in confined spaces (this is true of most gases). Some large transformers are shipped from the manufacturer charged with nitrogen.

Personnel entering a confined space would be faced with an atmosphere lacking in oxygen unless fully ventilated as per section on "CONFINED SPACES" of this handbook.

- Sample Safe Work Procedure Templates These templates may be used to develop task specific safe work procedures for the circumstances involved.

# **TEMPORARY LIGHTING AND HEATING**

# **Temporary Lighting**

# **Illumination / Lighting - Fixed Temporary**

- 1. Where natural illumination is not sufficient, artificial lighting shall be used.
- 2. Temporary lighting (except battery powered) shall be protected with approved guards.
- 3. All areas where workers must work, pass through or be present including areas of access and egress must be adequately illuminated.
- 4. Missing or burned-out light bulbs must be replaced.
- 5. Missing or broken covers or shields for the light bulbs must be immediately replaced.
- 6. Dark areas are not to be entered without the assistance of portable lighting or flashlights.
- 7. Where the work site is the responsibility of the general contractor, lighting must be provided and adequate for other trades and the public.

# **Lighting - Fixed Temporary**

This refers to the electrical system installed for the purpose of illumination during construction. Branch lighting circuits should be kept entirely separate from power circuits except for a common supply. Minimum temporary lighting requirements do not include provisions for portable hand-held lamps used by various trades to illuminate their immediate work area.

- 1. Lamps should be installed in suitable locations to illuminate the entire area. Where this is impractical, additional light should be installed over and above the minimum requirements.
- 2. All temporary lighting is to be inspected regularly and burned-out or missing lamps replaced promptly. Any lights that become obstructed by new work such as ceiling, ducts, piping, equipment and/or partitions should be relocated.
- 3. Each individual lighting branch circuit should be protected by a circuit breaker or fuse with a rating of 15 amperes and the total load per circuit should not exceed 12 amperes.
- 4. Lighting stringers should not be plugged into a receptacle but instead hard-wired directly into a distribution panel.
- 5. All work areas where a worker is present (including the means of access and aggress from the work area(s)) must be adequately lit.
- 6. Lights bulbs used in temporary lighting systems must have a protective cage or other mechanical protection device.

- Sample Safe Work Procedure Templates These templates may be used to develop task specific safe work procedures for the circumstances involved.

# **Temporary Heating:**

All temporary heating sources are required to provide proper heat for the workers and in some cases the materials that are being used during the project.

- 1. The heater must be placed at least 3m (10 feet) away from any materials or foundations.
- 2. All combustible and flammable materials must be kept clear of the heater at all times.
- 3. The heater must be installed and maintained by a trained person who is certified in propane handling and who is familiar with the equipment.
- 4. Heaters are not to be used for any other purpose other than the outlined manufacturer's specifications.
- 5. All propane tanks, compressed gases, and pressurized cylinders must be stored away from the heater. The heater should never be directly applying heat to flammable supplies and/or materials such as wood and other flammable compounds.
- 6. If there is an unpleasant odour in the vicinity of the heaters (either of rotten eggs or boiled cabbage), immediately turn off the heater and contact the rental provider. If the smell is present before starting the heater DO NOT start the heater under any circumstance. Contact the provider immediately and ventilate the area.
- 7. Prior to starting a temporary heater an Emergence Evacuation Procedure must be put in place.
- 8. A fire extinguisher must be in the area and readily accessible in the event of a fire; workers shall be trained in firefighting methods.

### TRAFFIC CONTROL

Every employer who may have workers exposed to hazards of vehicle traffic shall develop and implement a written traffic control protection program for their workers on a given project. All workers should be made aware of the types of vehicles on site and the traffic routes to be used. Speed limits and traffic direction flows should be strictly adhered to at all times.

Vehicle traffic on site is to move in a forward direction at all times unless it is not possible. The Constructor will have a traffic control and protection plan for the site and this should be reviewed with all workers on site.

A traffic control person must be a "competent worker" and must not be involved in any other work while directing traffic. They shall not direct traffic for more than one lane in the same direction or direct traffic if the posted speed limit is greater than 90 kilometres per hour. The traffic control person shall position themselves in a manner that minimizes the risks involved. They shall also be given written and oral instructions regarding the traffic protection plan including a description of the signals and signs to be used. This instruction must be documented and administered in a language the traffic control person understands.

- Sample Safe Work Procedure Templates These templates may be used to develop task specific safe work procedures for the circumstances involved.

A vest or garment that covers the upper body shall be worn by the traffic control person and include fluorescent blaze, two yellow stripes on the front and back 5 cm. wide with a total area of 500 square centimetres on the front and 570 centimetres on the back. The stripes shall be retro-reflective and fluorescent, be vertically centered on the front, and form an "X" pattern on the back. It is also suggested that arm and leg reflective and fluorescent bands be included in the abovementioned garment and be worn in addition to the vest or garment for the upper body. If a vest is used, it should have an adjustable fit mechanism.

For a list of required signs, lane control devices, barricades etc., please refer to the Construction Regulations or Ministry of Transportation regulatory requirements.

### **NEW WORKER ORIENTATION & TRAINING**

The following issues must be addressed by your supervisor during your first DAY of work with our firm. These topics will allow you to understand our operating procedures and assist you in your success as a member of our company. Each item in the following checklist should be signed and dated by the supervisor and plant manager as it is completed.

- Sample Safe Work Procedure Templates These templates may be used to develop task specific safe work procedures for the circumstances involved.

# NEW WORKER ORIENTATION CHECKLIST

	Comment	Initial	Date
Name of New Hire			
Date of Hire			
Hours			
Wage			
Supervisor			
JH&SC Members			
Training -WHMIS -Policy & Procedure			
Responsibilities			
Discipline			
Review			
Safety/PPE			
Probation			
Job Training -Equipment -Tools			

New workers must ask questions if they do not understand the work. Do not engage in any job or task that you are unsure of or you feel endangers your safety – stop work immediately and ask for assistance.

# **MATERIAL HANDLING**

# **Lifting and Carrying**

Most lifting accidents are due to improper lifting methods, as well as trying to lift more than the acceptable weight for one worker.

- Sample Safe Work Procedure Templates These templates may be used to develop task specific safe work procedures for the circumstances involved.

All manual lifting **should be planned** and the following safe-lifting practices adhered to:

- 1. Employees should know their physical limitations and the approximate weight of materials they are trying to lift.
- 2. Obtain assistance in lifting heavy objects whenever that task may be more than can be safely handled.
- 3. Before any manual lifting is done, the use of power equipment or mechanical lifting devices such as dollies, trucks or similar devices should be considered and applied where and when it is practical.
- 4. Bulky loads should be carried so as to permit an unobstructed view of the intended path ahead.
- 5. Ensure a good grip before lifting.
- 6. Lift gradually. Lift slowly, smoothly, and without jerking.
- 7. The back should be kept nearly vertical or straight and the lifting done with the leg muscles, which are large and strong.
- 8. Avoid bending. Do not place objects on the floor if they must be picked up again later.
- 9. Avoid twisting. Turn your feet, not your hips or shoulders. Leave enough room to shift your feet so as not to twist.
- 10. Avoid reaching out. Handle heavy objects close to the body. Avoid a long reach out to pick up any object.
- 11. Do not be tempted at the last moment to swing the load onto the deck or shelf by bending or twisting your back.
- 12. Pipes, conduits, reinforcing rods, and other conductive materials should not be carried on the shoulders near exposed live electrical equipment or conductors.
- 13. When two or more persons carry a heavy object that is to be lowered or dropped, there shall be a prearranged signal for releasing the load.
- 14. When two or more persons are carrying an object, each employee, if possible, should face the direction in which the object is being carried.
- 15. Keep in good physical shape. Get proper exercise, maintain a good diet, and make sure you are well rested.
- 16. Avoid lifting more than 22.5 kg (50lbs) alone whenever possible.

# MECHANICAL SAFETY TAG & LOCKOUT SYSTEM

# **APPLICATION:**

This procedure applies to all managers, supervisors, employees, and subcontractors in our employ or under contract with our firm.

### **PURPOSE:**

- Sample Safe Work Procedure Templates These templates may be used to develop task specific safe work procedures for the circumstances involved.

The purpose of this procedure is to review the basic principles of Tag and Lockout for working with mechanical – HVAC, Fire Stand Pipes, Domestic Potable Water, and Sanitary Systems in the workplace.

### **PROCEDURE:**

### **General Mechanical**

- Do not attach or otherwise install the connection piece from the discharge side of
  the incoming valve for the Fire Stand Pipe System and Domestic Potable Water
  System and cap the open end, thereby blanking the system.
  (NOTE: The systems will not be able to be pressurized without the missing
  connection piece of pipe; however the Fire Stand Pipe System will remain open
  for the Siamese street connection to be energized by the external emergency
  services, in the event of an emergency).
- 2. The connection piece to the domestic potable water and the fire stand pipe will be reconnected during the testing phase upon completion of the system being worked on. (NOTE: The connecting piece from the discharge side of the incoming valve for the Fire Stand Pipe System and Domestic Potable Water System, once attached and installed, will create the potential for an energized system. The Lock out tag out procedures will also be followed for work with the specific systems).
- 3. Prior to opening or closing an energized mechanical system the designated employee <u>MUST:</u>
  - Have written authorization from their foreman
  - Have full knowledge and be competent regarding the affected systems
  - Notify the constructor/owner of the system verbally and in writing of the work to be performed.
- a) HVAC: During the construction installation phase the system is not under pressure. The system is under <u>minimal</u> pressure during the testing phase.
  - The kitchen exhaust duct is tested with a smoke bomb to assess adequate seals and welds. The make-up air units are smoke bomb-tested to determine if they will trip the fire alarm system. The pressurization air flow for stairwells is smoke bomb-tested to determine adequate positive and negative air pressure. The smoke bomb test is performed under normal atmospheric conditions and a fan is used to circulate the smoke throughout the tested systems. Tests are performed in accordance with the Ontario Building Code (1997).
- b) Sanitary System: During the construction installation phase the system is not under pressure. Gravity and slope of the system will move the material through the sanitary system upon completion. The system is under pressure during the testing phase. (NOTE: The tests are performed in accordance with the Ontario Plumbing Building Code 7.3.6.0 7.3.6.7) Two test options are available: an air

- Sample Safe Work Procedure Templates These templates may be used to develop task specific safe work procedures for the circumstances involved.

test or a water test. The testing of the sanitary system is performed in conjunction with a Municipal Plumbing Inspector and a mechanical contractor's employee to inspect the drains and vents for leaks or deficiencies. The testing procedure is as follows: a test piece of pipe with an attached nipple and pressure gauge will be installed at the bottom and top of the system's test area. A hose will be connected to the nipple at the bottom to fill the system with water or air from a compressor until the pressure gauge at the top and bottom reads 5 PSI. The Municipal Plumbing Inspector will inspect the system while it maintains a pressure of 5 PSI for 15 minutes. The inspector will pass the system if there are no leaks and the system holds under pressure for the allotted 15 minutes.

c) Domestic Potable Water (Hot and Cold lines): The system is not under pressure during the construction installation. The connection piece from the discharge side of the incoming valve for the Domestic Potable Water will be re-installed for the testing phase. The system is under pressure during the testing phase. (NOTE: The tests are performed in accordance with the Ontario Plumbing Building Code 7.3.7.0 – 7.3.7.3. The testing is performed by injecting water and or air into the system. The testing of the domestic potable water system is performed in conjunction with a Municipal Plumbing Inspector and contractor's mechanical employee to inspect the system for leaks or deficiencies. A test connection piece will be connected to the incoming cold water main (same diameter) with an attached nipple piece at the lowest point of the system.

The hot and cold water will be connected to create a bypass in order to fill the complete system (hot and cold). Pressure gauges will be attached to the highest and lowest point. A hose will be connected to the lowest test piece, the valve will be opened and the system will be injected with water and or air until the top pressure gauge reads 145 PSI.

The worker reading the top gauge will contact the worker at the bottom gauge by radio to instruct the worker to disconnect the hose, close the valve and place a lock and tag on the valve. The system will remain under pressure for 2 hours, in accordance with section 7.3.7.0 – 7.3.7.3 of the Ontario Plumbing Code (1997). Upon completion of the test and with written approval from the Municipal Plumbing Inspector; the mechanical contractor's employee who placed the lock and tag will remove their lock and tag, open the valve and bleed the system. The Domestic Potable Water system may be isolated for maintenance work (individual suite, riser, main, etc.). The water entering a specific location can be shut off by closing the valve closest to the water source, thus de-energizing the system at that specific point.

The mechanical contractor's employee will close the valve, drain the system of water (pressure), and place their individual lock and tag on the valve.

The mechanical contractor's employee will remove their lock and tag upon completion of the task and reopen the valve. Any additional employees who are

- Sample Safe Work Procedure Templates These templates may be used to develop task specific safe work procedures for the circumstances involved.

required to work on the Domestic Potable Water System shall attach their lock/tag to a multiple lock and tag out clamp. The multiple clamp lock system will be removed when the testing phase is complete after all employees complete their tasks.)

# d) Fire Stand Pipe:

(NOTE: The system is not under pressure during the installation construction phase. The system is under pressure during the inspection phase)

# The following steps shall be taken to complete a Fire Stand Pipe System:

- Remove the temporary fire line piece from the 15<sup>th</sup> floor.
- Install the final fire line piece complete with 1 ½ inch and 2 ½ inch nipples and gauges on top.
- Install the fire hose cabinet.
- Connect the 1 ½-inch fire hose and rack.
- Install the fire hose cabinet glass and fire extinguishers before the final inspection by the Municipal Fire Department.

# These procedures shall be followed for the final inspection by the Fire Department:

- A competent mechanical contractor's employee appointed by the supervisor shall be positioned on the roof level with the fire hose connected to the standpipe with the Fire Department Inspector.
- A second appointed, competent employee will be positioned in the fire pump room with the Fire Department Inspector.
- The two employees and the supervisor shall be in communication by radio contact.
- The employee on the roof will open the 1 ½-inch fire hose valve and take a pitot tube reading with a handheld gauge.
- The employee in the fire pump room will verify the pressure that the fire pump activated.
- Employee on the roof shuts off the fire hose.
- The employee in the basement will drain the pressure in the standpipe system and refill by city pressure with water only.
- Reset the fire pump in the basement.
- Inspections will be performed by the mechanical contractor's supervisor and two additional, competent mechanical employees.
- The constructor will be notified of all dates and times of inspections in writing.
- The final pressure at the top of the fire hose cabinet will be between 60-90 P.S.I. as per the NFPA regulations.

- Sample Safe Work Procedure Templates These templates may be used to develop task specific safe work procedures for the circumstances involved.

- The Fire Stand Pipe System will be disconnected and de-energized by the removal of the connection piece to the fire pump until it is required to be reinstalled for the final inspection by the fire department.
- The constructor will be requested to lock the door to the sprinkler/fire pump room.
- To ensure the system is de-energized, the 1 ½ inch valve on the ground floor or P1 level will be opened to release any pressures if they exist and confirm that the system is de-energized.

(NOTE: The inspection is performed in accordance with the Ontario building code 7.2.11.1, and the National Fire Protection Agency (NFPA 24). The testing is performed by injecting water and or air into the system.)

- The system may be isolated for maintenance work anywhere along the system depending on the task (riser or main, fire pump, etc.) The water or potential energy in the stand pipe can be shut off by closing the valve closest to the water (pressure) source and placing an individual lock and tag on the valve. The employee will remove their lock and tag upon completion of the task and reopen the valve.
- All additional employees who are required to work on the Fire Stand Pipe system shall attach their lock and tag to a multiple lock and tag out clamp.
   The multiple clamp lock system will be removed when all employees complete their task. All Fire Cabinets will have signs affixed to them stating "Danger Due To Testing Do Not Touch" prior to and throughout the testing phases on all systems.
- Mechanical equipment and lines shall always be considered as being "energized".
   Always test and isolate systems prior to your work. When opening any valve the employee shall stand with their body away from the pipe.
- All maintenance work will be performed in conjunction with the constructor or building owner and Municipal Authorities safe work procedures and protocols.

### **Tag and Lockout Procedures**

Lock/Tag-Out procedures are an important requirement during any activity when a piece of equipment or system is energized and represents a potential hazard to life or property.

1. The minimum procedures to be followed are drawn from existing codes, statutes or the manufacturer's specifications. The most stringent of the instructions, rules or regulations are with respect to tagging and lockout procedures.

- Sample Safe Work Procedure Templates These templates may be used to develop task specific safe work procedures for the circumstances involved.
  - 2. Employees shall follow written safe work procedures for lockout / tagging as directed by their supervisor or as outlined by a site-specific tag and lockout procedure.
  - 3. Every employee is responsible for placing a lock & tag on all de-energized sources prior to commencing work. Only the person who placed a lock and tag on a system may remove it. No one has the authority to remove safety locks, except the person placing the lock.
  - 4. A multiple clamp lock and tag out system will be used when more than one employee is working on the same de-energized mechanical system.
  - 5. All tags and locks must be placed at the primary source of the energy whenever possible. Alternatively the locks should be placed as close to the primary energy source. The primary energy source must also be identified with a sign "Danger Due To..." and monitored to prevent re-energizing the system prematurely.
  - 6. All Fire Cabinets will have signs affixed to them stating "Danger Due To Testing Do Not Touch" prior to and throughout the testing phases on all systems.

# **Personal Protective Equipment and Devices**

Protective clothing, equipment, and devices shall comply with requirements and shall be used / worn as per manufacturer's specifications.

# PROJECT START-UP CHECKLIST

- 1. Has the Notice of Project been filed & posted?
- 2. Are the Act & Regulations for Construction Projects posted?
- 3. Are our Safety Policy, map to the hospital, emergency contact numbers, fall rescue plan, emergency response plan and traffic control plan posted?

- Sample Safe Work Procedure Templates These templates may be used to develop task specific safe work procedures for the circumstances involved.
  - 4. Is a fist aid kit available and are the certificates of those qualified in first aid posted?
  - 5. Is the WSIB Form 82 (what to do in the event of an injury) posted?
  - 6. Do we have the required Material Safety Data Sheets (MSDS) for all controlled products on site?
  - 7. Do we have the required storage cages for gas cylinders (if applicable) and have we designated an area away from vehicle traffic for its placement?
  - 8. Do we have a sufficient number of fire extinguishers on site?
  - 9. Do workers have the required training cards for fall protection, WHMIS, propane, fork truck operation, fire extinguishers, etc.?
  - 10. Have we inspected all incoming vehicle equipment (X-lifts, cranes, forklifts etc) to ensure that they have the required maintenance logs and operators' manuals available and up-to-date?
  - 11. Have the subcontractors submitted their required safe work procedures outlining specific safe work procedures for any areas prescribed?
  - 12. Do we have an emergency contact list and safety policy for each subcontractor?
  - 13. Have we established a JH&SC / Safety Representative as required?
  - 14. Has Tickner & Associates Inc. been notified of the project location and have they conducted a start-up review?
  - 15. Have we posted the required accident reporting and PPE signs throughout the site?

# TRENCHES & EXCAVATIONS

Specific attention to Sections 222 through 242 of O.Reg. 213/91 as amended must always be reviewed and complied with prior to beginning an excavation.

### **CONSIDERATIONS**

➤ Call all required services, (hydro, water, etc.) prior to digging for locates.

- Sample Safe Work Procedure Templates These templates may be used to develop task specific safe work procedures for the circumstances involved.
  - No worker will be allowed to work in a trench or excavation without another worker being stationed outside of the trench and in close proximity to the work.
  - The area shall be kept reasonably free of water accumulations.
  - ➤ Loose rocks or other material that could give way must be removed.
  - Excavations cut in rock must have wire mesh or rock anchors to eliminate spalling of loose rock..
  - ➤ Materials, equipment and excavated material must not be stored within one metre of the upper excavation wall.
  - ➤ Wall stability must be maintained at all times.
  - ➤ Machine, vehicle or equipment use must not be located or used in a manner that will affect the walls stability.
  - ➤ A 1.1-metre fence must be provided for an excavation that is 2.4 metres or more in depth and is not sloped in the proper manner.
  - Correct sloping of walls should be completed once the soil condition and type of soil is known and at the time of the excavation work.
  - If the excavation has the potential to affect adjacent structures, a professional engineer must specify the safety precautions to be implemented.
  - Records of the soil types must be retained for review and referral as required.
  - The appropriate support system must be used as the circumstances dictate
  - > Proper access and egress into the excavation must be maintained at all times
  - ➤ All trenching and excavation work must be done under the direction of a competent person.
  - ➤ A specific emergency rescue plan should be developed prior to entry by any worker.

# **DEMOLITION**

# CONSIDERATIONS

➤ Only those workers who are directly involved in the demolition process are to be in the immediate area.

- Sample Safe Work Procedure Templates These templates may be used to develop task specific safe work procedures for the circumstances involved.
  - ➤ Barriers should be used to restrict access to the area by other workers or pedestrian traffic.
  - Signs warning of the dangers and restricted areas should be posted in areas where they are most likely to be noticed.
  - Precautions must be taken to protect adjacent buildings and prevent injury to other persons nearby.
  - ➤ All gas, electrical and other services must be de-energized and locked out prior to the demolition.
  - ➤ All toxic, flammable or explosive materials must also be removed from the building prior to demolition.
  - ➤ Buildings should be demolished from the highest point to the lowest point unless this process endangers a worker.
  - No support for a tier or floor shall be disturbed until all work above is complete
  - ➤ No exterior wall may be demolished until all glass from doors, windows etc. have been removed.
  - ➤ Masonry units must be removed in a manner that does not endanger the worker or other persons.
  - > Structural members must only be removed after the load forces have been relieved and temporary supports are in place as required.
  - Any basements or excavations left by the demolition must be back-filled to grade level or have a fencing installed along all open sides with the appropriate signage.
  - ➤ Workers should be trained in the actual and potential hazards associated with each job and the circumstances present.