

U.S. Department of
Homeland Security

United States
Coast Guard



Regulated Bulk Liquid Transfer Monitors



COMDTINST M16455.11
April 2018

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Commandant
United States Coast Guard

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COMMANDANT INSTRUCTION M16455.11

Subj: REGULATED BULK LIQUID TRANSFER MONITORS

- Ref: (a) Information and Life Cycle Management Manual, COMDTINST M5212.12 (series)
 (b) COTP, Tactics, Techniques, and Procedures (TTP), CGTTP 3-71.3
 (c) Maritime Prevention Program Performance Plan (Fiscal Years 2014-2019)
 (d) Marine Safety Manual, Volume I, Administration and Management, COMDTINST M16000.6 (series)
 (e) Operational Risk Management, COMDTINST 3500.3 (series)
 (f) Coast Guard Medical Manual, COMDTINST M6000.1 (series)
 (g) Safety and Environmental Health Manual, COMDTINST M5100.47 (series)
 (h) Waterways Management (WWM), COMDTINST 16001.1 (series)

1. PURPOSE. This Manual expounds on the authority and jurisdiction used by Coast Guard personnel to conduct oil and hazardous material transfer monitors and to enforce compliance with facility and vessel pollution prevention regulations. For the purpose of this Manual, hazardous material includes all material defined as “Hazardous material” in 33 CFR 154, and all liquefied gases regulated under 33 CFR 127.
2. ACTION. All Coast Guard unit commanders, commanding officers, officers-in-charge, deputy/assistant commandants, and chiefs of headquarters staff elements must comply with the provisions of this Manual. Internet release is authorized.
3. DIRECTIVE(S) AFFECTED. None.
4. DISCLAIMER. This guidance is not a substitute for applicable legal requirements, nor is it itself a rule. It is intended to provide operational guidance for Coast Guard personnel and is not intended to, nor does it, impose legally-binding requirements on any party outside the Coast Guard.

DISTRIBUTION – SDL No. 168

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NON-STANDARD DISTRIBUTION:

5. IMPACT ASSESSMENT. This Manual codifies pre-existing and ongoing pollution prevention activities and procedures; no new resources will be provided for this task. Among a number of changes contained within this Manual, of which Coast Guard personnel should be cognizant, there are no changes that are assessed to significantly impact the workload for Coast Guard facility inspections, pollution response, domestic vessel inspectors, or Port State Control personnel or operational commands.
6. ENVIRONMENTAL ASPECT AND IMPACT CONSIDERATIONS.
 - a. The development of this Instruction and the general policies contained within it have been thoroughly reviewed by the originating office in conjunction with the Office of Environmental Management, Commandant (CG-47). This Instruction is categorically excluded (CE) under current Department of Homeland Security (DHS) categorical exclusion (CATEX) A3 from further environmental analysis in accordance with “Implementation of the National Environmental Policy Act (NEPA), DHS Instruction Manual 023-01-001-01 (series).
 - b. This Instruction will not have any of the following: significant cumulative impacts on the human environment; substantial controversy or substantial change to existing environmental conditions; or inconsistencies with any Federal, State, or local laws or administrative determinations relating to environment. All future specific actions resulting from the general policy in this Instruction must be individually evaluated for compliance with the National Environmental Policy Act (NEPA), Department of Homeland Security (DHS) and Coast Guard NEPA policy, and compliance with all other applicable environmental mandates.
7. DISTRIBUTION. No paper distribution will be made of this Manual. An electronic version will be located on the following Commandant (CG-612) web sites. The Internet site is <http://www.dcms.uscg.mil/directives>, and it is also available on CGPortal at <https://cg.portal.uscg.mil/library/SitePages/Home.aspx>.
8. RECORDS MANAGEMENT CONSIDERATIONS. This Manual has been evaluated for potential records management impacts. The development of this Manual has been thoroughly reviewed during the directives clearance process, and it has been determined there are no further records scheduling requirements, in accordance with Federal Records Act, 44 U.S.C. 3101 et seq., National Archive and Records Administration (NARA) requirements and Reference (a). This policy does not have any significant or substantial change to existing records management requirements.
9. FORMS/REPORTS.
 - a. The Pollution Prevention Compliance Report, Form (CG-5562B) must be used during all monitors. All previous editions are obsolete. Per the Information and Life Cycle Management Manual, COMDTINST M5212.12 (series) (Chapter II-16-16, Item No. 6), units must retain copies of Pollution Prevention Compliance Report, Form (CG-5562B)

for two years after completion of the transfer monitor, after which they may be destroyed (NC-76-80-4, Item 219) unless they are related to a case under litigation or are part of an incomplete investigation.

- b. Units will document transfer monitor activity in the Marine Information for Safety and Law Enforcement (MISLE) database per the applicable MISLE user guide. The user guide can be found in CGPortal, within the MISLE community website.

10. REQUEST FOR CHANGES. Units and individuals may recommend changes by writing via the chain of command to: Commandant (CG-FAC); U S Coast Guard Stop 7501; 2703 Martin Luther King Jr Ave; WASHINGTON, DC 20593-7501.

J. P. NADEAU /s/
Rear Admiral, U.S. Coast Guard
Assistant Commandant for Prevention Policy

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CHAPTER 1. General

A. Background.

1. Environmental Protection. Marine Environmental Protection is a long established program in the United States Coast Guard. The Revenue Marine was tasked with protecting natural resources as early as 1822 and, with the Refuse Act, began defending the marine environment as a whole in 1899. However, growing environmental awareness in the later part of the 20th century pushed the Coast Guard even deeper into the pollution prevention realm.
2. Authority. A series of tank vessels groundings, including the TORREY CANYON, ARGO MERCHANT, and EXXON VALDEZ, led to the passage of several substantial pollution prevention laws by Congress and an Executive Order (E.O.). The Coast Guard pollution prevention mission and associated activities are primarily derived from these authorities as outlined below:
 - a. The Ports and Waterways Safety Act (PWSA) of 1972 gave the Coast Guard broad authority to, among other things, establish safety requirements for waterfront facilities, regulate the storage and handling of dangerous cargoes, set standards for design, and mandate operating standards for tank vessels.
 - b. The Federal Water Pollution Control Act (FWPCA) of 1972 set a “no-discharge” standard for pollutants in U.S. navigable waters and established the basic structure for regulating pollutant discharges into the waters of the U.S.
 - c. The Port and Tanker Safety Act of 1978 amended the PWSA and provided the USCG with more extensive authority in the supervision of and control of all types of vessels operating in U.S. navigable waters and, particularly, in the safety of all tank vessels that transport and transfer oil and hazardous cargos in U.S. ports.
 - d. Oil Pollution Act of 1990 (OPA 90), among other things, imposed new requirements on the construction and operation of vessels carrying oil in bulk in U.S. waters, required facility and vessels owners/operators to prepare response plans and strengthened federal authority to respond to oil or hazardous substance spills.
 - e. E.O. 12777 further defined implementation of Section 311 of the FWPCA and delegated the responsibility of inspecting vessels carrying oil and hazardous material to the Coast Guard in order to reduce the likelihood of discharges of these commodities on navigable waterways of the U.S.
3. Advanced Notice of Transfer Requirements. Under 33 CFR 156.118, the Captain of the Port (COTP) may require a facility operator to notify the COTP of the time and place of each transfer operation at least four hours before it begins for facilities that are mobile, remote, have a prior history of oil or hazardous material spills, or conduct infrequent transfer operations. Additionally, IAW 33 CFR 156.118(c), no person may conduct such

a transfer operation until advance notice has been given as specified by the COTP. However, this is an optional prerequisite to be determined by the COTP. There is no blanket requirement for all facilities regulated under 33 CFR 154 to provide four hour advanced notification for each transfer operation. Under 33 CFR 127.1319(a) the operator of a waterfront facility handling Liquefied Hazardous Gas (LHG) must notify the COTP of the time and place of each transfer of LHG in bulk at least four hours before it begins. Under 33 CFR 127 there is no direct requirement for a facility to notify the Coast Guard before a transfer of Liquefied Natural Gas (LNG) occurs. However, under 33 CFR 127.319(a)(3), there is a requirement to obtain permission from the COTP if a vessel will be moored outboard of any LNG vessel during LNG transfer operations.

4. Pollution Prevention Activities. The aforementioned marine environmental disasters sparked the development of a stronger marine environmental protection program and reemphasized the importance of pollution prevention related activities such as oil and hazardous material transfer monitors. In addition, transfer monitor teams have a multi-mission role. They can identify, report, and respond to suspicious activities, breaches of security, marine pollution and other hazardous conditions on our waterways. They also provide a Coast Guard presence and enhance Maritime Domain Awareness by serving as the eyes and ears of the Captain of the Port.

B. Discussion.

1. Prevention Benefits. Oil or hazardous material spill prevention practices cost far less than conducting response operations. Transfer monitors are an effective way to reduce the likelihood of oil or hazardous material spills and they help increase compliance with facility and vessel pollution prevention laws and regulations.
2. Cost of Complacency. Failure to have an effective Transfer Monitor Program sends the wrong signal to the maritime industry leading to complacency and relaxed adherence to pollution prevention procedures that can lead to an increase in spills, a negative impact on the environment and the stretching of limited resources for response and operations resulting from such spills. An investment by a COTP in an effective Transfer Monitor Program will reap long-term benefits for the unit, industry and the marine environment.

C. Responsibilities.

1. Headquarters.
 - a. Provide policy guidance and regulatory interpretation on matters pertaining to the Regulated Bulk Liquid Transfer Monitors program.
 - b. Routinely review national transfer monitor data, conduct trend analysis and share the results with Areas, Districts, and field units.

- c. Track and review progress towards attainment of annual transfer monitor performance goals for each field unit based on facility population for facilities regulated under 33 CFR 127 and 33 CFR 154 in each port.
 - d. Periodically review and update this Manual.
2. Areas and Districts.
- a. Provide procedural oversight and support to the COTP conducting regulated bulk liquid transfer monitors. Provide recommendations to improve policy as it relates to the Transfer Monitor Program.
 - b. Serve as a liaison between the COTP and Headquarters to address operational questions and provide guidance on conducting oil and hazardous material transfer monitors.
3. COTP.
- a. Train and qualify personnel to conduct oil and hazardous material transfer monitors.
 - b. Properly equip personnel with appropriate personal protective equipment for conducting transfer monitors on waterfront facilities, piers or docks, or onboard vessels.
 - c. Conduct oil and hazardous material transfer monitors in accordance with established policy and a risk based targeting methodology.
 - d. Leverage contacts with state and local regulators to obtain oil and hazardous material transfer information not otherwise available to select transfer operations to monitor based on risk.
 - e. Strive to meet performance goals for transfer monitors.
 - f. Ensure all verbal transfer suspension orders are followed up with written COTP Orders to suspend transfer operations IAW Reference (b).
 - g. Ensure MISLE casework is completed timely and correctly.
 - h. Conduct transfer monitor operations after hours and on weekends as resources permit.
 - i. Utilize letters of warning, notices of violation, and civil penalties, when necessary, to compel compliance.

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CHAPTER 2. Personnel Requirements and Performance Goals

A. Personnel Requirements.

1. Team Competencies. Each transfer monitor team should contain a minimum of two individuals, one of which will be a facility inspector. This is a minimum standard, and ideally one member holding one of the other competencies listed below will also be included on the team.
2. Facility Inspectors. With their broad base of knowledge in port operations, pollution prevention requirements, and Coast Guard jurisdiction within the port, qualified facility inspectors have the appropriate skill set for conducting oil and hazardous material transfer monitors. Additionally, because a majority of oil and hazardous material transfer operations occur at waterfront facilities, the multi-mission capabilities of facility inspectors should be exercised through the combination of safety and security spot checks before or after the transfer monitor to increase efficiency and enhance Coast Guard presence on the waterfront.
3. Pollution Responder. These personnel are the representatives of the COTP who investigate reports of oil discharges and hazardous material releases. In addition, they represent the Federal On Scene Coordinator (FOSC) for mitigating the impact of such releases that involve a threat of substantial harm to human health or the environment. If an actual incident occurred during an oil or hazardous material transfer monitor, the pollution responder should initiate the investigation, make a determination on the appropriate course of action and help determine whether responsible party or FOSC action is necessary. Having a pollution responder as part of a transfer monitor team ensures a rapid response and investigation, if a pollution incident occurs during the transfer operation, and ensures familiarity with the facilities and transfer operations that happen within the AOR.
4. Marine Inspectors and/or Port State Control Officers. Many oil or hazardous material transfers involve a vessel or barge transferring product to or from a facility. Under the requirements found in 33 CFR 156, there are specific spill prevention and equipment standards for vessels transferring oil or hazardous material in bulk. A transfer monitor team may want to have a qualified marine inspector or Port State Control officer in the group to ensure the vessel portion of the inspection conforms to bulk oil and hazardous material standards for vessels as well as those for the facility and, in addition, to ensure that facility inspectors are aware of oil and liquid hazmat transfer requirements for vessels.

B. Performance Goals for Transfer Monitors.

1. Measures of Success. The Coast Guard has limited resources and a remarkable regulatory workload. This Section discusses performance goals established by Commandant (CG-FAC).

2. Performance Goal. Each field unit's annual transfer monitor performance goal is set as the number equal to 20% of the total number of facilities regulated under 33 CFR 127 and 33 CFR 154 in that unit's Area of Responsibility. Selecting the proper applicability for each regulated facility in MISLE will ensure all levels of the chain of command can easily determine what each unit's goal is each year.
 - a. In Reference (c), Commandant (DCO) directed Commandant (CG-FAC) to establish transfer monitor activity related targets and allowances for risk based assessments. Commandant (CG-FAC) acknowledges competing demands and finite resources in Coast Guard Prevention Departments; so, rather than creating a requirement, a performance goal has been created. When a unit meets this performance goal while focusing on the highest risk facilities, the COTP should generally have a high level of confidence in the return on investment in carrying out their transfer monitor program.
 - b. If risk analysis dictates and operations allow, units may exceed this performance goal to effectively influence compliance with federal pollution prevention standards in their area of responsibility. There may be times when a unit will not be able to meet the performance goal. Captains of the Port should evaluate many factors, such as risk assessment based on area of responsibility knowledge and the risk matrix discussed in Chapter 2.C of this Manual, surge operations, regulatory requirements, and incident response demands when determining whether to do more or fewer transfer monitors than the 20% performance goal.

C. Targeting Transfer Monitors Based on Risk.

1. Risk Factors. To meet annual transfer monitor performance goals effectively, unit program managers should implement a risk based targeting program. Facilities to target should be based on the transfer monitor risk matrix discussed in Paragraph 2 below and/or local area of responsibility knowledge. The following are examples of risk factors that may be considered:
 - a. Owners or operators of vessels and/or facilities with a high frequency of deficiencies, violations, or oil or hazardous materials;
 - b. Transfer of a product with a high consequence factor, particularly if the transfer is located close to environmentally or publically sensitive areas or critical infrastructure;
 - c. Oil or hazardous material transfer during hours of darkness or inclement weather,
 - d. Transfer of multiple products simultaneously.
2. Transfer Monitor Risk Matrix. The targeting transfer monitor matrix may be used to assist in identifying high risk transfer operations. Use of this matrix will help units reduce risk related to maritime oil and hazardous material transfer activity when resources are limited. When routinely used, the matrix will simplify and standardize the targeting process Coast Guard-wide. A step-by-step guide with procedures and

requirements for using the Transfer Monitor Risk Matrix may be found in Appendix G of this Manual.

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CHAPTER 3. Transfer Monitor Safety and Health Risks

A. Safety Hazards

1. Safety Overview. There are numerous potential hazards associated with oil or hazardous material transfer monitors. Many of these hazards are consistent with the physical hazards typically found at a waterfront facility or aboard a vessel during inspections or Port State Control examinations. Additionally, many of the cargoes or products handled during these operations are explosive, flammable, or present an inhalation or other health hazard. This Chapter provides an overview of standard safe work practices while conducting transfer monitors. However, nothing in this guidance should prevent strict adherence to the detailed guidance found in Reference (d). Inspectors should be very familiar with the guidance found in Chapter 10 of this Reference.
2. Chemical Health Hazards. Exposure to hazardous materials through contact or inhalation during transfer monitors can be harmful or fatal. Of note, Poisonous by Inhalation (PIH) commodities generally have a low Immediately Dangerous to Life and Health (IDLH) level, Threshold Limit Values (TLV), and Short Term Exposure Limits (STEL). Caution should be exercised around these commodities during transfer operations as prescribed within Reference (d).
3. Vessel Materiel Condition. The materiel condition of a vessel should be considered as part of the onsite safety risk assessment. Corroded metal, broken gangways and rails, sharp corners, shackles, loose gear and wet or slippery decks are all items that could cause potential injury. Caution should be observed whenever these or other slip, trip, and fall hazards are present.
4. Waterfront Facility Hazards. While on facilities, Coast Guard personnel must remain alert for moving vehicles and other facility related activities to avoid injury. Inspectors will comply with all of the facility's personal protection requirements in addition to Coast Guard requirements.
5. Smoking Prohibitions. Given possible interactions with hazardous or explosive materials, Coast Guard personnel are prohibited from smoking while conducting oil or hazardous material transfer monitors.

B. Recommended Equipment and Risk Assessment

1. Personal Protective Equipment (PPE). The Coast Guard requires the use of personal protective clothing and equipment at field units. It is the units' responsibility to ensure their personnel have appropriate PPE for the hazards present.
 - a. For conducting oil or hazardous material transfer monitors, basic PPE will include: a hard hat, safety glasses, hearing protection, safety shoes, and leather gloves for abrasion hazards. When practical, long sleeve work attire or coveralls should also be worn to help provide protection from sun exposure, abrasion, cold temperatures and

contact with chemical hazards. Hearing protection should be worn at any location where personnel must raise their voices to communicate.

- b. A Coast Guard issued, properly calibrated multi-gas meter must be worn by all members of the team. Portable communication devices should be used when necessary to ensure reliable access to emergency care during transfer monitors. Any portable communication device used in potentially explosive atmospheres must be intrinsically safe.
 - c. Transfer monitor teams must abide by the policy found in the USCG Countering WMD Capabilities Manual, COMDTINST M3400.51 (series), which requires that “radiation detection capabilities (i.e., as a minimum, Personal Radiation Detectors) must be deployed with, and used by, all Coast Guard Boarding/Inspection teams to include teams visiting facilities and conducting pier-side boardings and during vessel exams to include Port State Control exams, for the dual purpose of protecting Coast Guard and any participating Law Enforcement personnel from exposure and increasing the chances of intercepting illicit rad/nuc material.
 - d. More detailed guidance on PPE can be found in Reference (d). Units should contact their cognizant Safety and Environmental Health Officer (SEHO) for help in determining appropriate PPE or to assess hazards.
2. Risk Assessment. An onsite risk assessment should be done prior to any transfer monitor and all transfer monitor activity must be conducted with caution given the safety and health risks these activities present. All team members must employ the concepts of Reference (e) and Appendix B.

C. Response to Releases/Discharges or Exposures.

1. Emergency Egress. All personnel must immediately evacuate the exposure area and muster in a safe location upwind. The following factors are indications of possible exposure and require an immediate emergency egress. Indications of exposure are not limited to the factors on this list:
 - a. Leaks, odors, or sounds (such as when compressed gas is released);
 - b. Personal monitor or meter alarms; and/or
 - c. Feeling dizzy or light-headed.
2. Actions to be Taken after an Emergency Egress.
 - a. Close off the area by establishing isolation distances to safeguard other personnel from accidental exposure to a hazardous atmosphere or environment.

- b. Notify the COTP and institute appropriate operational controls. Controls include suspension of the oil or hazardous material transfer operation, Port State Control (PSC) Safety Detention by appropriate personnel, safety zone implementation, or restriction of operations per Reference (b).
- c. The National Response Center, appropriate Oil Spill Response Organization (OSRO), and facility and vessel personnel who have the capability to resolve the emergency should be notified. Vessels and facilities may have response plans that detail the procedures for resolving oil or hazardous material spills, which include required notifications. This does not prevent the Coast Guard transfer monitor teams from making their own notifications in accordance with local procedures.

D. Emergency Medical Treatment.

1. Use of Guides. Safety Data Sheets (SDS), oil and chemical specific emergency response information, such as that found in the Department of Transportation Emergency Response Guide (DOT ERG) Book, the National Institute for Occupational Safety and Health (NIOSH) Pocket Guide, and the Chemical Hazard Response Information System (CHRIS) Manual, must be consulted for appropriate initial decontamination. Coast Guard personnel should be aware of the location and contact information of facility-operated and local fire departments, first aid stations, and oil and chemical decontamination stations.
2. Medical Facilities. Medical treatment for exposure to hazardous materials requires specialized medical facilities. COTPs must maintain current listings and locations of medical facilities with Hazmat teams for hazardous material exposure victims. If such facilities do not exist, personnel should be taken to other appropriate pre-identified medical facilities.
3. Medical Care. Reference (f) provides policy for emergency medical care. Medical personnel should be provided with all known information including the name and concentration of the hazardous materials, duration of exposure, and most probable route of exposure; e.g., inhalation, absorption, injection or ingestion. Medical personnel should also be given the 24-hour telephone number to the Agency for Toxic Substances and Disease Registry, which is (770) 488-7100.
4. Occupational Medical Surveillance and Evaluation Program. Acute exposure protocols should be followed IAW Reference (f).

E. Recommended Emergency Equipment.

1. Emergency Escape Breathing Apparatus (EEBA). While not required to be carried by Coast Guard personnel on transfer monitors, upon entering a facility, it should be noted if a facility has EEBA's and, if so, the nearest location to the marine transfer area. The EEBA is a form of respiratory protection, to be used exclusively as emergency protection while egressing from a hazardous area. An EEBA must never be used for the purpose of ENTERING confined spaces or hazardous areas. An EEBA is primarily for sudden

releases of toxic or explosive vapors/gases or toxic vapors with good warning properties. The required wearing of a gas meter assists with identifying these hazards.

2. Communications. Portable communications must be used to ensure reliable access to emergency medical care. Any portable communication device used in potentially explosive atmospheres must be intrinsically safe.
- F. Health Related Record Keeping. Each inspector should maintain a personal record of suspected or known exposure to hazardous materials in his/her medical record and provide copies to physicians conducting OMSEP visits. The Occupational Health Surveillance Questionnaire, Form (CG-5197) is available for use as a personal record. Unit OMSEP coordinators can assist with this in accordance with their responsibilities outlined in Reference (f).
- G. Reports. All Coast Guard mishaps will be investigated and reported IAW Reference (g). All mishaps are an opportunity to review procedures and policies to identify potential areas for improvements and to create greater hazard awareness. Units should share mishap reports with the SEHO and consider benefits of sharing with other units as appropriate.

CHAPTER 4. Transfer Monitor Reporting

A. MISLE. Inconsistencies in MISLE data make it difficult and, at times, impossible to assess the effectiveness of our prevention programs. Accurate, timely data entry in MISLE is critical to the success of Coast Guard Prevention activities. MISLE includes a series of procedures or guides for each activity, including transfer monitors. Creating a transfer monitor activity is handled through a system generated workflow process in MISLE. All inspectors should strictly follow applicable MISLE User Guides when entering transfer monitor data. It is recommended that inspection personnel record transfer monitor activities in MISLE within 24 hours of completion of the activity. Instructions for transfer monitor data entry in MISLE can be found in the MISLE User Guides folder found on CGPortal. Questions or recommendations regarding the user guides should be directed to Commandant (CG-FAC-2).

B. Forms and Orders.

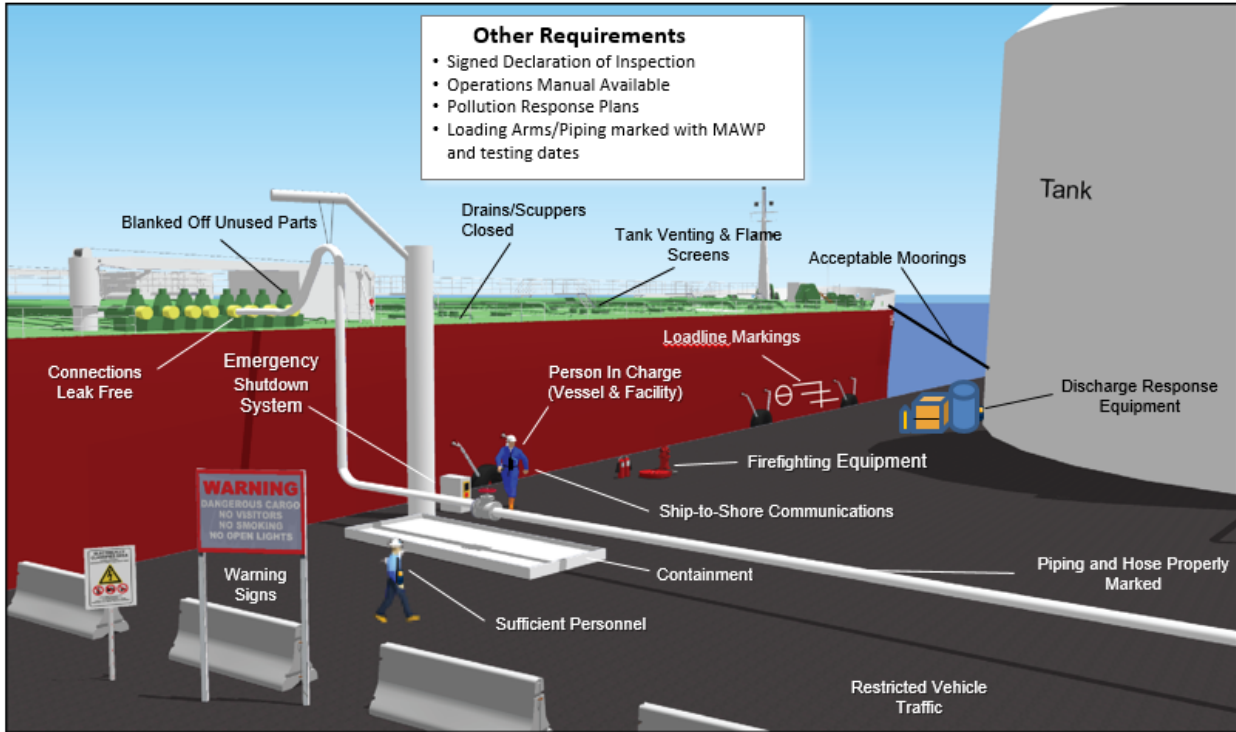
1. Pollution Prevention Compliance Report, Form (CG-5562B). Inspectors must use the Pollution Prevention Compliance Report, Form (CG-5562B) to document transfer monitor activities, which can be obtained by submitting a milstrip requirement to the Surface Forces Logistics Command (SFLC) stock number (SN): 7530-01-GF3-2720. This form is a legal document and therefore must be filled out legibly and correctly during transfer monitor inspections. Additionally, it must be scanned and saved in the MISLE transfer monitor activity under documentation. The report serves as:
 - a. Official notice of deficiency to the shipper, carrier, or facility representative;
 - b. A notification of a suspension order;
 - c. A form to capture data for entry into MISLE; and
 - d. Documentation for record keeping.
2. No Deficiencies Noted. If no deficiencies are identified, the inspector should write “no deficiencies found” across the bottom of the Pollution Prevention Compliance Report, Form (CG-5562B) and sign the form. A copy should be given to the facility and vessel representative and a copy kept for record keeping. Follow-on MISLE casework must also indicate that no deficiencies were found in the narrative block.
3. Deficiencies Noted. The Vessel/Facility Inspection Requirements, Form (CG-835) must be used by inspectors to document transfer monitor deficiencies on regulated facilities and vessels. A description of the deficiency, the appropriate regulatory citation, corrective action if required, and a due date for that corrective action must be written out. When qualified vessel inspectors are not part of the transfer monitor team, predetermined local procedures should be followed when issuing deficiencies to vessels as part of a transfer monitor activity. A copy of the Vessel/Facility Inspection Requirements, Form (CG-835) should be given to the facility and/or vessel representative, as appropriate, and

a copy kept for record keeping. Follow-on MISLE casework must outline the deficiencies that were identified in the narrative block and inspection results screen.

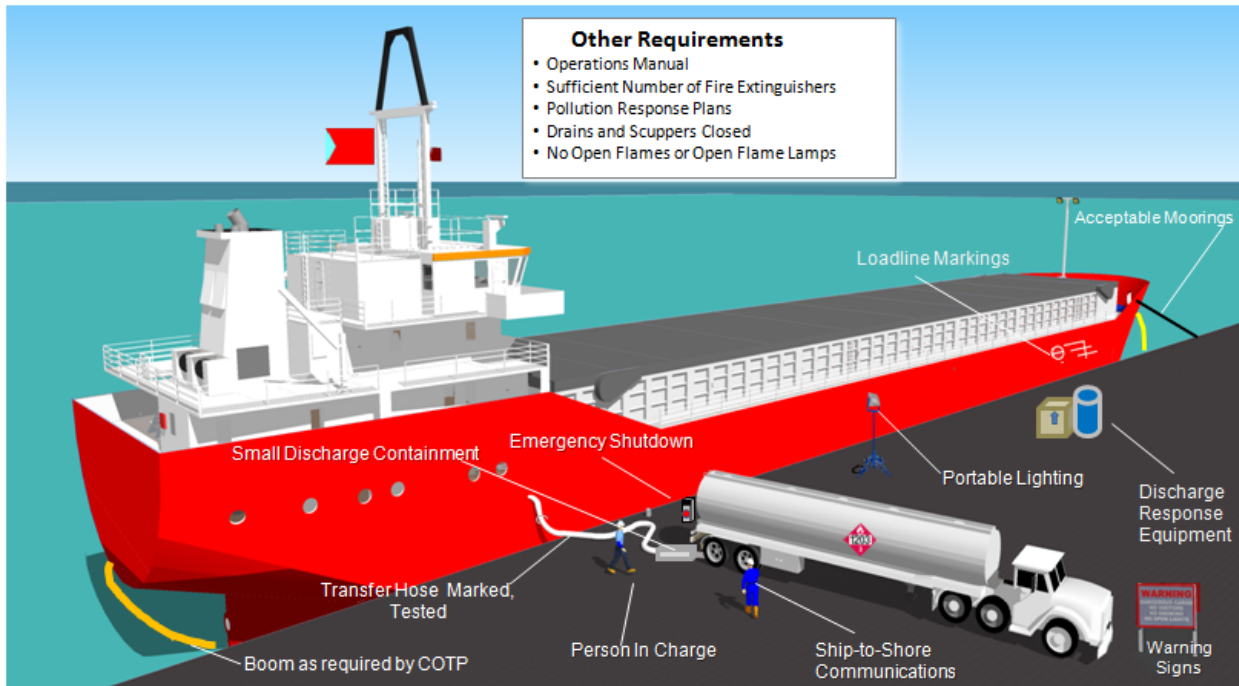
4. Operational Shut Down. When an actual or potential safety issue is identified, an inspector may temporarily halt the transfer to address the issue. If the issue is resolved, the transfer should be allowed to resume. If the issue cannot be quickly resolved, the transfer should not be permitted to resume and the inspector should contact the COTP for authorization to give a verbal order to formally suspend the transfer operation. The verbal suspension order must be followed up with a written order as soon as possible. The inspector should keep the unit apprised of the situation in accordance with unit policy. COTP's and inspectors must be mindful of the time a transfer is shut down to facilitate maritime commerce while ensuring safety and regulatory compliance.
 5. COTP Orders, Suspension Orders and Administrative Orders. As per Reference (b), "a COTP Order is one of several tools available to Sector Commanders, and Commanders of MSUs with delegated COTP authority, and used to impose operational controls over a vessel, facility, or person, when an emergent situation develops." In the event a deficiency is severe enough to require an operational control such as shutting down transfer operations on a terminal, a COTP Order or Suspension Order is required in addition to notification on the Pollution Prevention Compliance Report, Form (CG-5562B) or Vessel/Facility Inspection Requirements, Form (CG-835). The deficiency must be noted on the Pollution Prevention Compliance Report, Form (CG-5562B) or Vessel/Facility Inspection Requirements, Form (CG-835) but the form alone must not be used to shut down facility operations. Administrative Orders issued under 40 CFR 300 may likewise be used to shutdown a transfer operation; however, its use is limited to directing oil or hazardous material response actions to the responsible party during a release or threat of a release. Inspectors must review and be familiar with current unit procedures for terminating facility operations should a safety or security concern warrant it. References (b) and (h) are the best source of information regarding authority, jurisdiction, and procedures for issuing COTP Orders. Suspension order information may be found in 33 CFR 156.112.
- C. Data Review. To ensure data quality and consistency department heads or designee must review all MISLE activities. Commandant (CG-FAC-2) must conduct periodic reviews of MISLE activities.

APPENDIX A Transfer Diagrams

Facility to Vessel Transfer



Mobile Bulk Liquid Facility Transfer



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APPENDIX B GAR MODEL**Risk Calculation Worksheet – Calculating Risk Using GAR Model
(GREEN-AMBER-RED)**

Other than minor verbiage changes in the description of each component, this GAR model is the same as the one found in Reference (e). To compute the total level of risk for each hazard identified below, assign a risk code of 0 (For No Risk) through 10 (For Maximum Risk) to each of the six elements. This is your personal estimate of the risk. Add the risk scores to come up with a Total Risk Score for each hazard.

SUPERVISION

Supervision considers how qualified the supervisor is and whether effective supervision is taking place. Even if a person is qualified to perform a task, supervision acts as a control to minimize risk. This may simply be someone checking what is being done to ensure it is being done correctly. The higher the risk, the more the supervisor needs to be focused on observing and checking. A supervisor who is actively involved in a task (doing something) is easily distracted and should not be considered an effective safety observer in moderate to high-risk conditions.

PLANNING

Planning and preparation should consider how much information you have, how clear it is, and how much time you have to plan the evolution or evaluate the situation.

TEAM SELECTION

Team selection should consider the qualifications and experience level of the individuals used for the specific event/evolution. Individuals may need to be replaced during the event/evolution and the experience level of the new team members should be assessed.

TEAM FITNESS

Team fitness should consider the physical and mental state of the crew. This is a function of the amount and quality of rest a crewmember has had. Quality of rest should consider habitability, potential sleep length, and any interruptions. Fatigue normally becomes a factor after 18 hours without rest; however, lack of quality sleep builds a deficit that worsens the effects of fatigue.

ENVIRONMENT

Environment should consider factors affecting personnel performance as well as the performance of the asset or resource. This includes, but is not limited to, time of day, temperature, humidity, precipitation, wind and sea conditions, proximity of aerial/navigational hazards and other exposures (e.g., oxygen deficiency, toxic chemicals, and/or injury from falls and sharp objects).

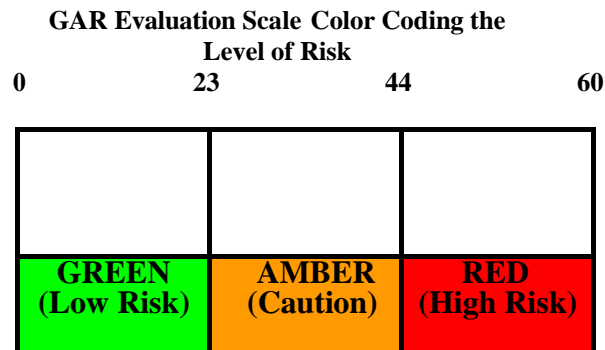
EVENT or EVOLUTION COMPLEXITY

Event/Evolution complexity should consider both the required time and the situation. Generally, the longer one is exposed to a hazard, the greater are the risks. However, each circumstance is unique. For example, more iterations of an evolution can increase the opportunity for a loss to occur, but may have the positive effect of improving the proficiency of the team, thus possibly decreasing the chance of error. This would depend upon the experience level of the team. The

situation includes considering how long the environmental conditions will remain stable and the complexity of the work. Assign a risk code of 0 (For No Risk) through 10 (For Maximum Risk) to each of the seven elements below.

SUPERVISION	_____
PLANNING	_____
TEAM SELECTION	_____
TEAM FITNESS	_____
ENVIRONMENT	_____
EVENT/EVOLUTION COMPLEXITY	_____
Total Risk Score	_____

The mission risk can be visualized using the colors of a traffic light. If the total risk value falls in the GREEN ZONE (1-23), risk is rated as “low”. If the total risk value falls in the AMBER ZONE (24-44), risk is moderate and you should consider adopting procedures to minimize the risk. If the total value falls in the RED ZONE (45-60), you should implement measures to reduce the risk prior to starting the event or evolution.






The ability to assign numerical values or “color codes” to hazards, using the GAR Model, is not the most important part of risk assessment. Team discussions leading to an understanding of the risks and how they will be managed is critical to this step.

APPENDIX C Transfer Monitor Forms and Instructions

U.S. DEPARTMENT OF HOMELAND SECURITY U.S. COAST GUARD CG-5562B (03-03)		POLLUTION PREVENTION COMPLIANCE REPORT						DATE/TIME MISLE CASE NO.					
USCG CAPTAIN OF THE PORT LOCATION/WATERWAY		OPS		BULK LIQUID		USCG COMPLIANCE TEAM							
						TYPE		QTY BBLs					
						BULK LIQUID							
LOADING VESSEL OR FAC.		VIN/ICS OR FIN/LID		FL	SVC	LPOC/NPOC		PERSON IN CHARGE					
								LICENSE OR MMD					
OFF-LOADING VSL OR FAC.		VIN/ICS OR FIN/LID		FL	SVC	LPOC/NPOC		PERSON IN CHARGE					
								LICENSE OR MMD					
COMPLIANCE: Y=YES, N=NO, C=CORRECTED ON SPOT				LOADING VESSEL OR FACILITY				OFF-LOADING VESSEL OR FACILITY					
REQUIREMENT <i>(Italics: 48 CFR)</i>		33 CFR / 46 CFR		Y	N	C	DATE TO CORRECT/NOTES		Y	N	C	DATE TO CORRECT/NOTES	
Suspend Transfer? (Discharge/Pollution, No Advance Notice, Lighting/Fire 35.35-40)		156.125, 118 151.45-4(f)											
Warning Signs/Signals 151.45-2(e), 153.953/955		35.30-1											
Mooring		156.120(a)											
Draft Marks & Loadlines		32.05, 42.07											
Lighting Sufficient per 154.570 and 155.790		156.120(y),(z)											
Person in Charge(PIC): In Immediate Vicinity, Immediately Available, Property Supervising		156.120(e),(f) 156.160											
PIC: Designation and Qualification ² (License, MMD, etc)		154.710, 730 155.700, 710											
PIC Not Exceeding Limitations		156.115											
Personnel: Sufficient ³		156.120(u)(1)											
Personnel: Capable / Unimpaired ⁴		35.05-20/25											
Cargo Authorization / Info ⁵		30.25-1											
Declaration of Inspection / Inspection ⁶		156.150											
Communication & No Language Barrier		156.120(q),(v)											
Pre-Transfer Conference and Agreement ⁷		156.120(w),(x)											
Ops Manual/Transfer Procedures Available		156.120(t), (u)(2)											
Emergency Shutdowns: 154.550, 155.780 ⁸		156.120(r)											
Hoses/Loading Arms: Length, Support, Alignment		156.120(b)(c),(d)											
Connections: Fixed, Proper, Leak Free ⁹		156.120(g),(k),(p)											
Blanked off Unused Parts		156.120(e),(f)											
Hoses/Loading Arms: Design Stds, Markings ¹⁰		156.120(j)											
Condition of Transfer Equipment & Hose ¹¹		156.170, 120(l)											
Containments: Required Capacity, Drained		156.120(n)											
Drains and Scuppers / Ovpd Discharges Closed		156.120(o)(h)											
Fires, Smoking, Etc. (153.975(m))		35.30-5											
Tank Openings / Flame Screens ¹²		35.30-10											
Cargo Tank Venting & Flamescreens ¹³		32.55-20/25											
Firefighting (Table 151.05, 151.30, 153.408)		34.05, 34.10											
Pollution Response Plans		154.1025 155.1025											
Discharge Equipment: Accessible / Deployed		156.120(m)											
Haz. Liquid Requirements (T/S: 153 Table 1)		Table 151.05											

Appendix C to COMDTINST M16455.11

<u>OTHER REQUIREMENTS</u>	<u>CFR CITE</u>	<u>SUBJECT</u>
1. PERSON IN CHARGE	46 CFR 151.45-4 46 CFR 153.957(a) 46 CFR 153.1102-1132 33 CFR 156.120(aa) 33 CFR 156.120(l)	BARGES, BULK LIQUID HAZMAT SHIPS, BULK LIQUID HAZMAT SHIPS HANDLING NLS VAPOR COLLECTION OPERATION FACILITY MONITORING DEVICES, IF REQUIRED
2. QUALIFICATIONS	46 CFR 31.15-1 46 CFR 35.35-1(b) 46 CFR 151.45-1(a) 46 CFR 153.957(b)	MANNED TANK VESSELS UNMANNED TANK VESSELS BARGES, BULK LIQUID HAZMAT SHIPS, BULK LIQUID HAZMAT
3. PERSONNEL	46 CFR 35.05-15 46 CFR 35.35-1(a) 46 CFR 151.45-3 46 CFR 151.45-4(a)	WATCHMAN CARGO HANDLING MANNING OF BARGES CARGO HANDLING
4. FITNESS, ILLNESS, ALCOHOL, DRUGS	46 CFR 151.45-8 46 CFR 153.936	
5. CARGO AUTH/INFO	33 CFR 130.3 46 CFR 151.01-15 46 CFR 151.04-1 46 CFR 151.45-7 46 CFR 153 SUBPART C	CERTIFICATION OF FINANCIAL RESPONSIBILITY (46 USC 3715) UNMANNED CARGOES COI SHIPPING PAPERS COI, COC, COF, REGULATIONS, CARGO RECORD BOOK PIPING PLAN, CERTIFICATE OF INHIBITION, CERTIFICATE OF STABILIZATION
6. PRE-TRANSFER INSPECTION & PREPARATION	46 CFR 35.35-20 46 CFR 151.45-4(d) 46 CFR 153.975	
7. PRE-TRANSFER CONFERENCE	46 CFR 153.968	
8. EMERGENCY SHUTDOWNS	46 CFR 32.50-35 46 CFR 153.296	TANK VSLS WITH PUMPS ON WX DECK
9. CONNECTIONS	46 CFR 35.35, 15 46 CFR 151.45-4(c) 46 CFR 153.972	
10. HOSES, PIPING, & LOADING ARMS	46 CFR 151.20-1 46 CFR 151.20-15 46 CFR 153.294 46 CFR 153.972 46 CFR 153.940	TRANSFER PIPING STANDARDS CARGO HOSE DESIGN STANDARDS, TESTING & MARKING MARKING OF CARGO PIPING SYSTEMS CARGO HOSE DESIGN STANDARDS & MARKINGS CARGO HOSE DESIGN STANDARDS & MARKINGS
11. CONDITIONS OF TRANSFER HOSE	46 CFR 153.940	PHYSICAL CONDITION OF CARGO EQUIPMENT & HOSE
12. TANK OPENINGS & FLAME SCREENS	46 CFR 151.45-2(c) 46 CFR 153.935	
13. TANK VENTING & FLAME SCREENS	46 CFR TABLE 151.05 46 CFR 151.15-5, 151.15-6 46 CFR 153.350 – 153.372	

U.S. DEPARTMENT OF HOMELAND SECURITY U.S. COAST GUARD CG-835 (Rev. 03-10)		Vessel/Facility Inspection Requirements		
Date of Inspection		COTP/OCMI Zone		
Vessel/Facility Name		ON/FIN	Inspection Type	
You must inform the inspecting officer when the following item(s) have been corrected:				
Description		Cite	Due Date	
Vessel/Facility Representative: <i>(print)</i>		Sign 		
USCG Inspector: <i>(print)</i>		Sign 		
Phone		Email		

U.S. Dept. of Homeland Security, USCG, CG-835, Rev. 03-10

RIGHTS OF APPEAL

[46 Code of Federal Regulations Subpart 1.03-15](#)

[33 Code of Federal Regulations Subpart 101.420](#); [127.015](#); [128.311](#); [154.1075](#); [160.7](#)

Any person directly affected by a decision or action of an OCMI or an order or direction of a COTP may, **after requesting reconsideration to the cognizant OCMI**, make a formal appeal, via the office of the cognizant OCMI, to the District Commander of the district in which the cognizant OCMI is located.

When requesting that a decision, action, order or direction be reconsidered or reviewed, such request must be made within 30 days after the decision is rendered or the action is taken.

When making a formal appeal, such appeal must be submitted in writing and received by the authority to whom the appeal is required to be made within 30 days after the decision, action, order or direction being appealed, or within 30 days after the last administrative action required by this subpart. Upon written request and for good cause, the 30 day time limit may be extended by the authority to whom the appeal is required to be made.

A formal appeal must contain a description of the decision, action, order or direction being appealed and the appellant's reason(s) why the decision, action, order or direction should be set aside or revised.

Formal appeals made to the Commandant shall be addressed to:

- (1) Commandant (CG-543) for appeals involving vessel inspection issues, load line issues, and vessel manning issues; or
- (2) Commandant (CG-544) for appeals involving facility safety and/or security inspection issues.

Failure to submit a formal appeal in accordance with these procedures and time limits results in the decision, action, order or direction becoming final agency action.

APPENDIX D Sample Suspension Order

**U.S. Department of
Homeland Security**
**United States
Coast Guard**



Commanding Officer
United States Coast Guard
Marine Safety Unit Tregor Island

3101 FM2004
Hiatus Port, DE 71956
Phone: (888)777-9311
Fax: (888)777-9312

16601
16 January 2016

**MARINE TRANSFER SYSTEM
SUSPENSION ORDER NO. XX-XX**

Flare Out Refinery
Attn: Mr. Caleb Dooganburger
P.O. Box 1790
Hiatus Port, DE 71956

Dear Mr. Dooganburger:

During a bulk oil transfer on Tuesday, 15 January 2016 you were notified about excessive safety deficiencies at the Flare Out Refinery, including a crack in the 10" pipe at dock 4. I consider your bulk transfer operation a safety and environmental risk and am therefore issuing the following Suspension Order under the authority of Title 33 CFR 156.112:

1. Cease all transfer operations at your facility until identified safety deficiencies have been addressed and compliance confirmed by my personnel.
2. Coordinate a facility spot check with COTP personnel to confirm corrections of discrepancies and compliance with the provisions in 33 CFR 156.

This order is effective immediately and will remain in effect until withdrawn by the Captain of the Port. Any person who violates this Suspension Order is liable to a civil penalty not to exceed \$11,000 for each violation as prescribed by 33 USC 1321(j). Furthermore, any person who willfully or knowingly violates a provision of 33 USC 1321(b)(6) is liable to a criminal penalty of not more than \$137,500 for each violation, or imprisonment for not more than 5 years, or both, as prescribed by 33 USC 1321(j).

If you have any questions, please contact the Facilities Branch Chief, Ensign Quinton L. DuBose, at (504)-442-1130.

Sincerely,

I.B. Coastie
Commander, U. S. Coast Guard
Commanding Officer
By direction of Captain of the Port


Acknowledged/Received

Date

Time

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APPENDIX E Sample Administrative Order

<p>U.S. Department of Homeland Security United States Coast Guard</p> 	<p>Commander United States Coast Guard Sector Hiatusport</p>	<p>400 Sand Island Parkway Hiatusport, DE 90819 (555) 555-5555</p>
		<p>16450 [Insert Date]</p>
<p>[Insert Name of Responsible Party] [XXXXX] 1487 Terminal Blvd. Hiatusport, DE 96025</p>		
<p>Re: ADMINISTRATIVE ORDER: [XXXXX]</p>		
<p>Dear [Insert Name of Responsible Party]:</p>		
<p>Pursuant to 33 U.S.C. §§ 1251-1376 (c), 33 U.S.C. §§ 1251-1376 (e)(1)(B), 33 C.F.R. § 1.01-80, and 40 C.F.R. Part 300.130(d), I have determined that there may be an imminent and substantial threat to the public health or welfare or the environment because of an actual or threatened discharge/release of oil or designated hazardous substance from a facility/vessel.</p>		
<p>I have determined that such a threat exist to the navigable waters of the Hiatus River. There is a significant spill of crude oil from [XXXXX]. On March 9, 2015 [XXXXX] discharged approximately 500 gallons of crude oil during a transfer. You were issued a Notice of Federal Interest of an oil pollution incident on March 9, 2015. Because the discharged oil poses an environmental hazard, the spill may present an imminent and substantial endangerment to the public health or welfare of the United States.</p>		
<p>For these reasons, and under the authority referred to above, you are hereby ordered to undertake the following actions:</p>		
<ol style="list-style-type: none">1. Immediately activate your Facility Response Plan.2. Deploy containment boom around all collected product within one hour of receipt of this order.3. Begin removing oil from the containment area within two hours of receipt of this order.4. Conduct 24 hour monitoring of the spill location to ensure product remains in the containment area.		
<p>Under the Oil Pollution Act of 1990, the responsible party is liable for, among other things, removal costs and damages resulting from this condition. The failure or refusal to comply with this Administrative Order will eliminate any defense or entitlement to limited liability, which might otherwise be available under the Act (33 U.S.C. §§ 2701-2762). Be advised that the following may result from your failure to properly carry out the removal actions as ordered to</p>		

protect the environment, public health, and welfare. The responsible party, owners, operators or persons in charge of the vessel or facility from which oil or hazardous substances are discharged are subject, under the Federal Water Pollution Control Act, to a civil penalty of up to \$40,000 per day of violation or up to three (3) times the cost incurred by the Oil Spill Liability Trust Fund. Failure to comply with the requirements of this Administrative Order may result in the federal government assuming full or partial control of removal actions.

This Administrative Order becomes effective immediately upon receipt. You may request, either orally or in writing, that I reconsider this order within 24 hours of its issuance. I may be reached for this purpose at [address and phone]. If you desire to appeal my decision on reconsideration, or the Administrative Order itself, you must direct the request for an appeal in writing to the district courts of the United States.

The act of requesting reconsideration or placing an appeal does not stay this order, but reviewing offices have the authority to take such action if they believe circumstances warrant it.

Please address all inquiries concerning this matter to [Insert Name and title] at (555) 555-5555.

Issued at U.S. Coast Guard Sector Hiatusport.

Sincerely,

[Insert Name]
Captain, U.S. Coast Guard
Federal On-Scene Coordinator

Acknowledgement: _____
Name Date

Signature: _____
Name Date

APPENDIX F Transfer Monitor Risk Matrix

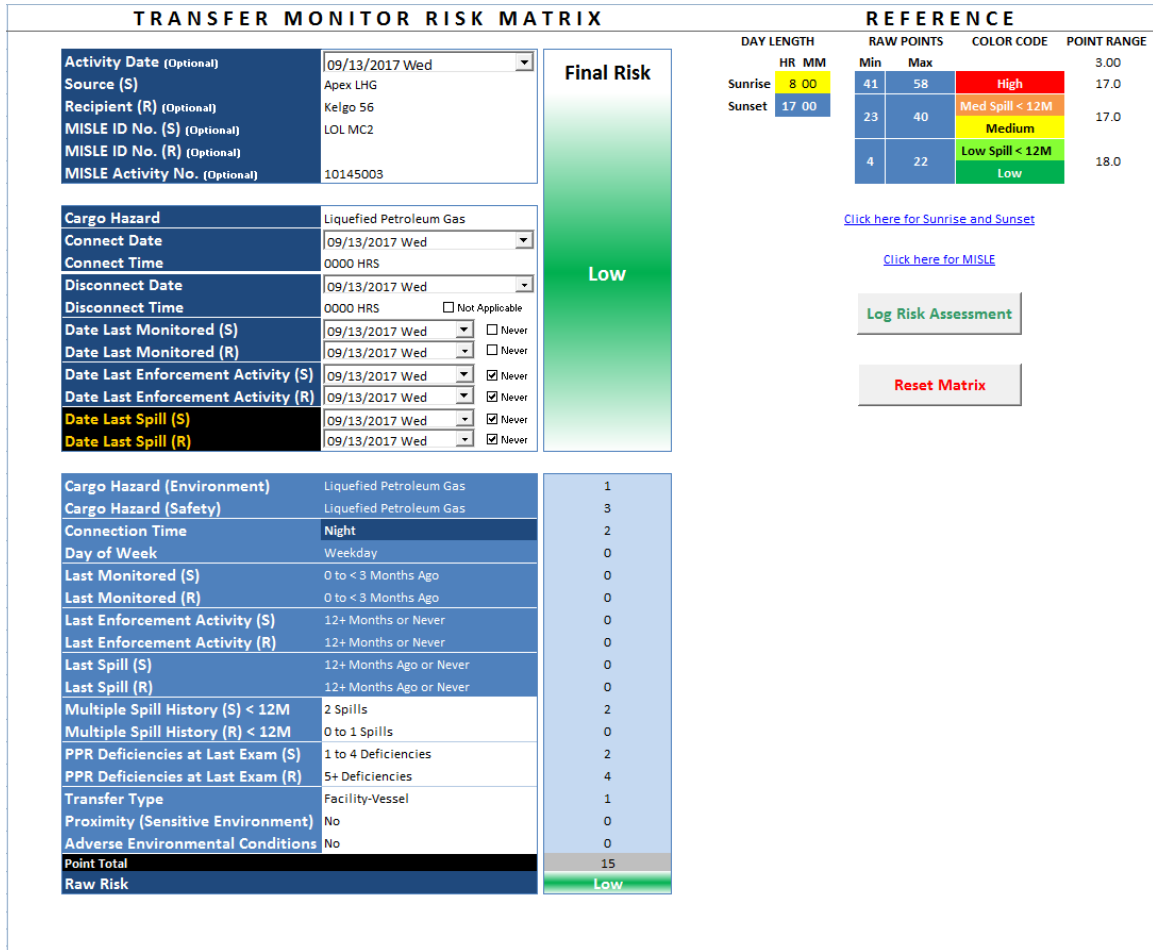


Figure F-1: Sample Transfer Monitor Risk Matrix

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APPENDIX G Transfer Monitor Risk Matrix User Guide

Transfer Monitor Risk Matrix Step-by-Step Instruction Guide

1. Transfer Monitor Risk Matrix. – This tool should be used by units to assist in targeting the highest risk bulk liquid transfer operations for monitoring by Coast Guard enforcement personnel. The following is a step by step guide for using the Transfer Monitor Risk Matrix:
 - a. Download a copy of the Transfer Monitor Risk Matrix from CGPortal. The term “Transfer Monitor Risk Matrix” will be referred to as “Matrix” from this point onward.
<https://cg.portal.uscg.mil/units/cgfac2/SitePages/TransferMonitorRiskMatrix.aspx>
 - b. Open the file.
 - (1) Should the Server Workbook prompt appear, select edit workbook.
 - (2) Should the Security Warning prompt appear that reads “Some active content has been disabled,” follow these steps to enable the Visual Basic for Applications (VBA) computer programming code present in the Matrix:
 - (a) Select Options.
 - (b) From the Microsoft Office Security Options window, select Enable this content.
 - (c) Select OK.
 - c. To the right of the Matrix under the Reference header in the Day Length column, set the hour and minute for both sunrise and sunset. Be sure to keep this reasonably up-to-date as this determines whether a transfer operation occurred during the light of day or not. The sunrise and sunset hyperlink leads to a solar website that is solely provided as a convenience. If another site is preferred, feel free to modify this hyperlink. Beneath the hyperlink to the solar website is the MISLE hyperlink, which is also provided as a convenience.
 - d. In the Source block, enter the source’s name.
 - (1) Without a source’s name, both the raw risk assessment and the final risk assessment will display “Source Name?”
 - (2) The letter (S) encased in parenthesis denotes the source, and the letter (R) encased in parenthesis denotes the recipient.

- (3) The following blocks are optional and exist for the informational benefit of the user: Activity Date, Recipient (R), MISLE ID No. (S), MISLE ID No. (R), and MISLE ACTIVITY No.
- e. From the drop-down for Cargo Hazard, select the appropriate product.
- f. Enter the time and date for “Connect” and “Disconnect” to activate the “Connection” and “Day of the Week” calculations. If the disconnect time is unknown check “Not Applicable.”
- (1) The date in this Matrix can be entered either by manipulating the pop-up calendar or typing the date directly in the box where the date is visible. The calendar is displayed numerically and its order is “mm/dd/yyyy”. In the calendar form, both the month and year can be easily changed by placing the mouse pointer over either category and left clicking to the appropriate month or year.
- (2) In order for a time entry to be recognized by this Matrix, separate the hour and minute portions with a colon.
- (3) Whether the date of connection or disconnection falls on a particular holiday is governed by the “Holiday” tab and may be modified as needed. In the date column, enter the appropriate date. In the holiday column, enter the name of the holiday.
- g. In the “Date Last Monitored” block, enter the date of the last occurrence for each party. If a transfer party has never been monitored before, check “Never.”
- h. In the “Date Last Enforcement Activity” block, enter the date of the last occurrence for each party. If a transfer party has never had an enforcement activity placed against them, check “Never.”
- i. In the “Date Last Spill” block, enter the date of the last occurrence for (S) or (R). If a transfer party has never had a spill before, check “Never.” If "Never" is checked, this is a risk reduction factor that when applied to the raw risk assessment, forms the finalized assessed risk. The term “finalized assessed risk” is referred to as “final risk” from this point onward.
- (1) The final risk is reduced by one risk level when both of the parties involved never had a spill or the last occurrence of a spill was 12 months or more ago. A good example would be a transfer operation whose raw risk is considered “High but with the application of the risk reduction factor, its final risk becomes “Medium.” Likewise, if the raw risk was “Medium,” the final risk would be “Low” when the risk reduction factor is applied.
- (2) The final risk is the same as the raw risk when at least one of the parties involved had a spill less than 12 months ago.

- j. From the drop-down for “Multiple Spill History < 12M,” select the number of spills that occurred within the past 12 months.
 - k. From the drop-down for “PPR Deficiencies at Last Exam,” select the number of deficiencies that were issued at the last examination for each party.
 - l. From the drop-down for “Transfer Type,” select the most fitting relationship between the two transfer parties.
 - m. From the drop-down for “Proximity (Sensitive Environment),” select “yes” or “no.” Local units should reasonably define the environmentally sensitive areas for their AOR. These areas are typically listed in the applicable Area Contingency Plan (ACP)
 - n. From the drop-down for “Adverse Environmental Conditions,” select “yes” or “no.”
 - o. Once all of the inputs are entered into the Matrix, the level of risk for both the raw risk and the final risk are independently displayed as High, Medium, or Low. The final risk assessment will inform the decision by the unit whether to target a particular oil or hazardous material operation for inspection or monitoring. The raw risk assessment is informative and reveals what the risk is before the risk reduction factor is taken into account.
2. Risk Assessment Summary. The risk level is the raw summary of the points awarded in each of the risk categories. The potential risk scores are ranked into three risk levels: High, Medium and Low. Focusing on the higher risk operations will ensure transfer operations with higher likelihood of spills or increased consequences in the event of a spill are monitored.

Note: It is possible over time that the numbers for the raw points could differ from what is shown in Figure G-1 and what is used in the risk Matrix tool itself. Conceivably, this could be due to the inclusion of new categories, the exclusion of obsolete categories, that the current policy that determines the risk numbers within each respective category has changed the value of one or more of those numbers, or a combination thereof. In the event that a difference exists, the values in Figure G-1 are to be considered for demonstration purposes only and the values in the Matrix tool are authoritative.

RAW POINTS	COLOR CODE	RISK LEVEL
41 to 58	High	High
23 to 40	Med Spill < 12M	Medium and had a spill less than 12 months ago
	Med	Medium
4 to 22	Low Spill < 12M	Low and had a spill less than 12 months ago
	Low	Low

Figure G-1: Risk Assessment Table

- a. Risk assessed as either Medium or Low, where the most recent spill occurred less than 12 months from the date of the transfer operation under evaluation, will change in color and include “Spill < 12M” in both the raw and final risk labels.
 - b. Risk assessed as either High or Medium is reduced by one level (i.e., High to Medium, Medium to Low) when the most recent spill for all of the parties involved is more than 12 months old or none at all.
3. Risk Assessment Log and Reset Matrix Buttons. There are two buttons under the Reference header in the Matrix, “Log Risk Assessment” and “Reset Matrix.” They are designed to assist with managing the risk assessment data and help reduce the amount of time to analyze multiple transfer operations.
 - a. Log Risk Assessment. This button captures the data collected in the Matrix and simultaneously logs it both on the Matrix tab under Short Log and on the Long Log tab. In the Matrix tab, only a portion of the data is recorded as a Short Log since the data is meant (though not required) to reside temporarily. In the Long Log tab, all of the data documented here is meant to be retained for longer term and more in depth analyses.
 - b. Reset Matrix. This button resets all of the entries in the Matrix categories to their default input (or answer). The Reset Matrix button only affects the Matrix itself and neither of the logs.
 4. Risk Categories and Point Scale.
 - a. **Cargo Hazard.** This category refers to the environmental and safety hazards associated with the cargo being transferred as listed in MISLE. The point categories for Environment and Safety are displayed separately in the calculator to assist with the decision of where to focus resources. The point category for Effective Total is a line item summation of the point categories for Environment and Safety for each

product hazard, which then is used to calculate the point levels for the risk assessment table as shown in Figure G-1.

Product Hazard	POINTS		
	Environment	Safety	Effective Total
Liquefied Natural Gas	1	4	5
Liquefied Hazardous Gas	1	3	4
Liquefied Petroleum Gas	1	3	4
Hazardous Cargo, Bulk Liquid	2	2	4
Oil – Refined Product	3	2	5
Oil – Crude	4	1	5

- b. **Connection Time.** Refers to whether the connection (or disconnection) for a transfer operation occurred during the light of day or the dark of night. Both the sunrise and sunset can be adjusted to set the day length that is used to calculate the part of the day the connection or disconnection occurred. Anytime either one of these connection events occur after sunset, it is considered a nighttime connection.

Connection	POINTS
Day (light)	0
Night	2

- c. **Day of Week.** The “day of the week” is the weekday, weekend day, or holiday on which a transfer operation will occur. For multi-day transfer operations, the effective day of week will be the riskiest day of the week during any part of a transfer operation. By default, the holidays used in this calculation are based on the holidays observed by the federal government. The list of these holidays may be modified as necessary.

Day of Week	POINTS
Weekday	0
Weekend	2
Holiday	3

- d. **Last Monitored.** The time that has passed since the last transfer monitor of either the source or recipient.

Last Monitored	POINTS
0 to <3 Months Ago	0
3 to 6 Months Ago	1
6 to <9 Months Ago	2
9 to <12 Months Ago	3
12 + Months or Never	4

- e. **Last Enforcement Activity.** Age of most recent violation or operational control associated with either the source or recipient.

Last Law Enforcement Activity	POINTS
12+ Months or Never	0
<12 Months	4

- f. **Last Spill.** The number of months since either the source or recipient last spilled a product listed under the Cargo Hazard category for this tool.

Spill History	POINTS
12+Months Ago or Never	0
9to<12 Months Ago	4
6 to <9 Months Ago	4
3 to <6 Months Ago	4
0 to <3 Months Ago	4

- g. **Multiple Spill History.** The number of spills a source or recipient had within the last 12 months.

Multiple Spill History	POINTS
0 to 1 spills	1
2 spills	2
3 spills	3
4+ spills	4

- h. **PPR Deficiencies at Last Exam.** The number of deficiencies the source or recipient received during their last inspection or transfer monitor.

Deficiencies at Last Exam (S)	POINTS
0 Deficiencies	0
1 to 4 Deficiencies	2
5 + Deficiencies	4

- i. **Transfer Type.** The nature of transfer operation from source to recipient.

Transfer Type	POINTS
Other	0
Facility-Vessel	1
Vessel-Facility	1
Vessel-Vessel	2
Multiple Products Simultaneously	3
Mobile Facility	4

- j. **Proximity (Sensitive Environment).** The closeness of a transfer operation to an environmentally sensitive area is as defined in the applicable Area Contingency Plan (ACP).

Proximity (Sensitive Environment)	POINTS
No	0
Yes	2

- k. **Adverse Environmental Conditions.** The degree to which environmental conditions are severe enough to increase the likelihood of a spill during a transfer operation.

Adverse Environmental Conditions	POINTS
No	0
Yes	2

- 5. Tool Improvement. Please submit suggestions for improving this tool to Commandant (CG-FAC). The transfer monitor risk tool can be run post incident to validate potential risk that existed and validate the tools functionality. This is not required post incident but observations and recommendations from analysis can be to submitted to HQS-PF-FLDR-CG-FAC-2@uscg.mil.

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APPENDIX H**Transfer Monitor Risk Matrix Glossary****Word or Phrase****Definition**

Adverse Environmental Conditions	Conditions severe enough to increase the likelihood of a spill during transfer operations.
Cargo Hazard	The environmental or safety hazards associated with the transferred product as listed in MISLE.
Connect Date/Time	The date/time of the transfer connection.
Connection Time	Refers to whether the transfer connection (or disconnection) for a transfer operation occurred during the light of day or the dark of night.
Date Last Monitored	The date an inspector last observed a transfer monitor of either the source or recipient.
Date Last Spill	The date an oil or hazardous material spill last occurred.
Day of Week	The day on which a transfer operation will occur. For multi-day transfer operations, choose the day with the highest risk.
PPR Deficiencies at Last Exam	The number of Pollution Prevention and Response (PPR) deficiencies either the source or recipient received during their last inspection or transfer monitor.
Disconnect Date/Time	The date/time of the transfer disconnect.
Last Enforcement Activity	Age of the most recent violation or operational control.
MISLE ID No. (R)	The MISLE number of the recipient facility or vessel during a transfer.
MISLE ID No. (S)	The MISLE number of the source facility or vessel during transfer.
Proximity (Sensitive Environment)	The distance a transfer operation occurs from an environmentally sensitive area as defined in the Area Contingency Plan.
Raw Risk	The initial assessment of risk as scored in the matrix before risk reductions factors are applied.
Final Risk	The final assessment of risk after reduction factors have been applied.