A. AUTHORITIES

1. Magnuson Act, 50 U.S.C. 191

This statute authorizes the safeguarding of U.S. harbors, ports, waters, vessels and waterfront facilities and all territory and water, continental or insular, subject to the jurisdiction of the U.S., whenever the security of the United States is endangered.

2. Ports and Waterways Safety Act (PWSA) Of 1972, 33 U.S.C. 1221-1232(a)

This statute promotes safety and the environmental quality of ports, harbors, waterfront areas, and navigable waters of the United States (including the District of Columbia, Puerto Rico, the Panama Canal Zone, Guam, American Samoa, the Virgin Islands, and the Trust Territory of the Pacific Islands). The Secretary of Transportation has been given broad authority to take action to prevent damage to, or the destruction or loss of, any vessel, bridge, or other structure on or in U.S. navigable waters, or any land structure or shore area immediately adjacent to those waters; and to protect the navigable waters and resources therein from environmental harm resulting from vessel or structural damage, destruction, or loss. A 1986 amendment added 33 U.S.C. 1226 which provided the Secretary authority to "carry out or require measures, including inspections, port and harbor patrols, the establishment of security and safety zones, and the development of contingency plans and procedures, to prevent or respond to acts of terrorism."

3. Section 311 of the Federal Water Pollution Control Act (FWPCA), 33 U.S.C. 1321

This section 311 prohibits discharges of oil or hazardous substances, in quantities that may be harmful, into or upon the navigable waters of the U.S. and adjoining shorelines; into or upon the waters of the contiguous zone; in waters connected with activities subject to the Outer Continental Shelf Lands Act (OCSLA) or the Deepwater Port Act (DPA) of 1974; or so as to affect natural resources belonging to, appertaining to, or under the exclusive authority of the U.S., including resources under the Fishery Conservation and Management Act of 1976. The FWPCA directed the President to determine those quantities of oil and hazardous substances that, when discharged, may be harmful to the public health, welfare or environment of the United States. He was authorized to delegate the administration of the act to those federal departments and agencies that he determined to be appropriate. The President delegated these functions by Executive Order (E.O.) 12777, dated 18 October 1991.

4. Outer Continental Shelf Lands Act (OCSLA), 43 U.S.C. 1331-1356

This statute, as amended, provides, in part, that the Secretary of Transportation may promulgate and enforce reasonable regulations with respect to lights and other warning devices, safety equipment, and other matters relating to the promotion of safety of life and property on the artificial islands and structures located on the Outer Continental Shelf (OCS) or in adjacent waters. The Secretary of the Department of Transportation (SECDOT) has delegated this authority to the Commandant, who promulgated the safety regulations now contained in 33 CFR 140-147 (see volume II, chapter 24 of this manual).

5. Hazardous Materials Transportation Act (HMTA), 49 App. U.S.C. 1801-1819

Originally promulgated in 1975 this act was significantly changed by a 1990 amendment. It authorizes the Secretary of Transportation to inspect shipments of hazardous materials to ensure their safe movement in domestic and international transportation. This act and the regulations in 49 CFR published under it apply to packaged cargoes (including tank trucks and rail cars) on waterfront facilities, but not to the facility itself. This act is also the statutory authority for the regulations in 46 CFR Part 148 which govern the transportation of bulk solid hazardous materials.

6. E.O. 10173, as amended by E.O.'s 10277, 10352, and 11249

These orders, issued pursuant to the Magnuson Act, 50 U.S.C. 191, prescribed certain port security regulations (33 CFR 6) to be enforced by the Coast Guard. The Commandant was further authorized to issue supplemental regulations to carry out this program. These orders provide authority to prevent both intentional and accidental loss or destruction of vessels or waterfront facilities. In the past, these orders have been used for the prevention of accidental losses (port safety), however their primary intent is the prevention of intentional losses (port security).

7. E.O. 12777

This order delegated to the Secretary of the Department in which the Coast Guard operates, authority under the FWPCA for "the establishment of procedures, methods, and equipment and other requirements for equipment to prevent discharges of oil and hazardous substances from vessels and transportation related onshore and offshore facilities, and to contain such discharges." The regulations for marine oil and hazardous material transfer facilities and oil and hazardous material transfer operations (33 CFR 154-156) are promulgated, in part, under this authority. The Administrator of the Environmental Protection Agency (EPA) is charged with determining those quantities of oil and hazardous substances that may be harmful and those that are not.

8. Regulations

a. 33 CFR 6.12. These regulations authorize the COTP to supervise and control the transportation, handling, loading, discharging, stowage, or storage of hazardous materials on board vessels under certain conditions. The Commandant is authorized to designate waterfront facilities for the handling, storage, and loading and discharging of explosives, flammable or combustible liquids in bulk, and other dangerous articles. Authority to require permits for such handling, storage, loading, and unloading is also provided. Under 33 CFR 6.14, the Commandant is authorized to prescribe conditions and restrictions relating to the safety of waterfront facilities and vessels in port, as he deems necessary.

b. 33 CFR 126. To implement 33 CFR 6.12 and 6.14, the Commandant prescribed the supplemental regulations contained in 33 CFR 126 (Handling of Explosives or Other Dangerous Cargoes Within or Contiguous to Waterfront Facilities). These regulations designate types of waterfront facilities, permit requirements, and conditions that must be met and maintained by facilities involved in the handling, storage, loading, or discharging of explosives, blasting agents, oxidizers, radioactive materials, certain liquefied gases in bulk, or other dangerous articles. Although these regulations initially were issued under the Magnuson Act, they were reissued in 1977 under authority of the PWSA. Thus, the civil and criminal penalties of the PWSA now apply to these facility regulations. [NOTE: Commandant (G-MPS) has started a regulatory project to update these regulations.]

c. 33 CFR 127. These regulations apply to all waterfront facilities that transfer liquefied natural gas (LNG), in bulk, to or from vessels. They were issued in 1988 under authority of the PWSA. They specify standards for facility design, construction, equipment, operations, maintenance, training, firefighting, and security.

NOTE: Commandant (G-MPS) has started a regulatory project to revise these regulations to include other liquefied gases.

d. 33 CFR Parts 154 And 156. These regulations apply to all onshore and offshore facilities capable of transferring oil or liquid hazardous material, in bulk, to or from any vessel with a capacity of 250 or more barrels (about 40 cubic meters) on the navigable waters or contiguous zone of the United States (see volume IX of this manual (Being developed)).

e. Additional Regulations. There are various references to waterfront facilities in Titles 46 and 49 of the Code of Federal Regulations (CFR). The regulations under 49 CFR parts 171-179 were promulgated under the authority of the Hazardous Materials Transportation Act (HMTA).

B. DEFINITIONS

1. Waterfront Facility

The definition of what constitutes a facility varies depending upon the authorizing legislation and regulations. In general, a waterfront facility is a pier, wharf, dock or similar structure to which a vessel may be secured. Any equipment on the structure, any buildings on or contiguous to the structure, and any equipment or materials on the structure or in those buildings are also considered part of the facility. Structures, buildings, and equipment used in conjunction with pier equipment, but not within the areas described above, do not come within the meaning of a waterfront facility. For example, storage tanks located beyond the immediate area of a pier facility, which are separate and distinct units connected to the pier facility only by pipeline, are not considered parts of the facility. On the other hand, tanks located on a wharf are considered part of the facility, and jurisdiction applies to them. Specific limitations by authorizing legislation are as follows:

a. Magnuson Act, 50 U.S.C. 191. A waterfront facility includes any pier, wharf, dock or similar structure to which vessels may be secured. Areas of land or water in immediate proximity to such structures, equipment on the structure, and buildings on or contiguous to the structure are also considered part of the facility.

b. Ports and Waterways Safety Act, 33 U.S.C. 1221-1232(a). Although not specifically defined in either the act or in regulations, a waterfront facility includes any structure located in, on, or adjacent to the navigable waters of the U.S. and any land structure adjacent to the navigable waters of the U.S. Areas of land or water in immediate proximity to these structures (piers and wharves), buildings on or contiguous to these structures, and any equipment or materials (including vehicles) on or in these buildings or structures, are also considered part of the facility.

c. Federal Water Pollution Control Act, 33 U.S.C. 1321. A waterfront facility includes any "onshore facility" or "offshore facility" as defined in the act. An "onshore facility" is any facility (including, but not limited to, motor vehicles and rolling stock) of any kind located in, on, or under any land within the United States other than submerged land. An "offshore facility" is any facility of any kind located in, on, or under any of the navigable waters of the United States and any facility of any kind which is subject to the jurisdiction of the United States and is located in, on, or under any other waters, other than a vessel or a public vessel. This is a much broader authority than provided by the above acts. Coast Guard jurisdiction is limited primarily by agreement with the Environmental Protection Agency. The jurisdiction in that agreement is explained in volume IX of this manual (Being developed).

2. Bulk

A material that is transported on board a vessel without mark or count and which is directly loaded into a hold or tank on a vessel without containers or wrappers.

3. Contiguous

As used in 33 CFR 126, means those buildings that connect with or adjoin piers, wharves, docks, and similar structures, including those buildings that connect directly with other buildings situated in whole or in part upon such structures are considered to be contiguous. A building that is located entirely off the structure of a pier or wharf and has no direct contact with it is not a contiguous building and is not part of the facility.

4. Vessels and Non-Facility Equipment

The definition of a waterfront facility under the Magnuson Act and the PWSA does not include vessels, railways, cranes, working areas, roadways, entrance and operating areas, stock and cargo piles, storage areas, container fields, parking lots, fueling areas, storage tanks, and handling areas, unless they are located upon the structure of the pier or wharf, or within a building upon or contiguous to the structure. Hence, a vessel temporarily moored to a waterfront facility does not become part of the facility.

5. Designated Waterfront Facility

A facility regulated under 33 CFR 126 that handles dangerous cargoes subject to 46 CFR part 148 or 49 CFR parts 171-179, or a bulk cargo listed in 33 CFR 126.10(d), is considered a designated waterfront facility. Under the provisions of 33 CFR 126.13 these cargoes can be handled, stored, stowed, loaded, discharged, or transported only at designated waterfront facilities and the facility must meet the requirements in 33 CFR 126.15. Bulk liquid waterfront facilities (other than certain liquefied gas facilities) are not covered under 33 CFR 126 and therefore are not "Designated Waterfront Facilities." The definition of a designated waterfront facility under 33 CFR 126 is limited to those handling commodities subject to specific regulations. If a facility handles any materials that require it to be a designated waterfront facility under 33 CFR 126, it must store all hazardous materials in accordance with 33 CFR 126.15(m), even if the packages and/or quantities are exempted under 49 CFR 171-179.

6. Facility of Particular Hazard

A designated waterfront facility (regulated under 33 CFR 126) that handles a cargo listed in 33 CFR 126.10. A facility of particular hazard must meet all the conditions in 33 CFR 126.15, plus the additional requirements in 33 CFR 126.16.

C. TYPES OF WATERFRONT FACILITIES

In general, waterfront facilities are regulated and inspected according to the types of hazardous products they transfer to or from vessels. Facilities that transfer products in more than one category will be inspected for compliance with each applicable set of regulations. In general, facilities are fixed structures, however in some cases tank trucks and rail cars can be considered "mobile" facilities (see 33 CFR 154.105). Under the PWSA, vehicles are not facilities, however when a vehicle capable of transferring a liquefied gas drives onto a fixed structure, it becomes part of the equipment on the structure converting it into a liquefied gas transfer facility. Vessels inspected under the regulations in CFR Title 46 are never considered facilities, however a permanently moored vessel that is not inspected under Title 46 may be considered part of a facility. Publicly owned or operated facilities are included in the definition of facility, however facilities owned and operated by federal agencies generally are not inspected by the COTP. The four general categories of waterfront facilities are: bulk liquefied gas, dry bulk, packaged, and bulk liquid. LNG facilities and LHG facilities are bulk liquefied gas facilities. Bulk liquid facilities, outer continental shelf facilities, and deepwater ports are covered elsewhere in this manual.

1. Bulk Liquefied Natural Gas Waterfront Facilities

a. Definition. A bulk liquefied natural gas waterfront facility is any pier, wharf, dock or similar structure to which a vessel may be secured that is used, or is capable of being used, to transfer liquefied natural gas (LNG) to or from a vessel, in bulk. The facility also includes areas of land, water, or land and water under and in immediate proximity to the structure, buildings on or contiguous to the structure, and equipment and materials on the structure or in the buildings. This term does not include facilities directly operated by the Department of Defense.

b. Jurisdiction. The bulk LNG facility requirements primarily apply to active facilities, however some of the safety requirements may apply to facilities in caretaker status. These rules are issued under the PWSA and therefore only apply to structures that are located in, on, or under the navigable waters of the U.S. (out to five kilometers). A tank truck or rail car that transfers liquefied gas from a structure converts that structure into a LNG facility. The owner of the structure or area of land and the operator of the tank truck or rail car are jointly responsible for ensuring that the requirements are met if a LNG transfer takes place. Jurisdiction on LNG facilities is generally limited by regulation to the "marine transfer area." The marine transfer area on LNG facilities extends from the waterfront or manifold to the last valve prior to the receiving tank.

c. Applicable Regulations. Facilities handling LNG in bulk are regulated under 33 CFR 127. The MARPOL reception facility regulations in 33 CFR 158 may also apply to a LNG facility.

2. Bulk Liquefied Hazardous Gas Waterfront Facilities

a. Definition. A bulk liquefied hazardous gas waterfront facility is any pier, wharf, dock or similar structure to which a vessel may be secured that is used, or is capable of being used, to transfer a liquefied hazardous gas (LHG) to or from a vessel, in bulk. The facility also includes areas of land, water, or land and water under and in immediate proximity to the structure, buildings on or contiguous to the structure, and equipment and materials on the structure or in the buildings. This term does not include facilities directly operated by the Department of Defense. Liquefied hazardous gases are those products listed in 33 CFR 126.10(d).

b. Jurisdiction. The bulk LHG facility requirements primarily apply to active facilities, however some of the safety requirements may apply to facilities in caretaker status. These rules are issued under the PWSA and therefore only apply to structures that are located in, on, or under the navigable waters (out to five kilometers) of the U.S. A tank truck or rail car that transfers LHG from a structure converts that structure into a LHG facility. The owner of the structure and the operator of the tank truck or rail car are jointly responsible for ensuring that the requirements are met if a LHG transfer takes place. Jurisdiction on LHG facilities is generally limited to the "marine transfer area." The marine transfer area on LHG facilities currently extends from the waterfront or manifold to the first valve inland from the manifold, including the entire pier or wharf on which the transfer manifold is located.

c. Applicable Regulations. Facilities handling LHG in bulk are regulated under 33 CFR 126. The MARPOL reception facility regulations in 33 CFR 158 may also apply to a LHG facility.

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3. Dry Bulk Waterfront Facilities

a. Definition. A dry bulk waterfront facility is any pier, wharf, dock or similar structure to which a vessel may be secured that is used, or is capable of being used, to transfer solid hazardous materials, to or from a vessel, in bulk. The facility also includes areas of land, water, or land and water under and in immediate proximity to the structure, buildings on or contiguous to the structure, and equipment and materials on the structure or in the buildings. This term does not include facilities directly operated by the Department of Defense. Bulk solid hazardous materials are any materials, other than liquids or gases, listed in the 49 CFR 172.101 table and its appendix when shipped in bulk. Bulk solid hazardous materials that may be transported on vessels without prior approval from the Commandant are listed in 46 CFR 148.01.

b. Jurisdiction. These rules are issued under the PWSA and therefore only apply to structures that are located in, on, or under the navigable waters (out to five kilometers) of the U.S. When a truck or rail car transfers solid hazardous materials to or from a vessel, it and the structure on which it is located, are to be considered a waterfront facility covered under these rules. Jurisdiction on dry bulk facilities includes the entire pier or wharf from which a transfer takes place, all buildings on or contiguous to such structures, and any equipment or materials on the structures or in the buildings.

c. Applicable Regulations. Facilities handling solid hazardous materials in bulk are regulated under 33 CFR 126. The MARPOL reception facility regulations in 33 CFR 158 may also apply to a dry bulk waterfront facility.

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4. Packaged Hazardous Material Waterfront Facilities

a. Definition. A packaged hazardous material waterfront facility is any pier, wharf, dock or similar structure to which a vessel may be secured that is used, or is capable of being used, to transfer packaged hazardous materials, to or from a vessel. The facility also includes areas of land, water, or land and water under and in immediate proximity to the structure, buildings on or contiguous to the structure, and equipment and materials on the structure or in the buildings. This term does not include facilities directly operated by the Department of Defense. Packaged hazardous materials are those materials covered under 49 CFR parts 171-179 when carried in packages that meet the requirements of those parts, including materials shipped in transport vehicles (tank trucks, rail cars, etc.) and freight containers.

b. Jurisdiction. These rules are issued under the PWSA and therefore only apply to structures that are located in, on, or under the navigable waters (out to five kilometers) of the U.S. When a truck or rail car transfers packaged hazardous materials to or from a vessel, it and the structure on which it is located, are a waterfront facility covered under these rules. Jurisdiction on packaged hazardous material facilities includes the entire pier or wharf from which a transfer takes place, all buildings on or contiguous to such structures, and any equipment or materials on the structures or in the buildings.

NOTE: These limits to jurisdiction over the waterfront facility do not apply to inspections of packaged hazardous materials consigned for shipment by water under the Hazardous Materials Transportation Act (49 U.S.C. 1801-1819), for which jurisdiction is not limited to waterfront facilities.

c. Applicable Regulations. Facilities handling packaged hazardous materials are regulated under 33 CFR 126. Packaged hazardous materials must meet the requirements in 49 CFR parts 171-179. The MARPOL reception facility regulations in 33 CFR 158 may also apply to a packaged hazardous material waterfront facility.

5. Bulk Liquid Waterfront Facilities

➔ See MSM Volume IX (Being developed).

6. Outer Continental Shelf Facilities

Inspections of these facilities will be conducted by the Officer in Charge, Marine Inspection (OCMI) in accordance with 33 CFR 142 and 43 U.S.C. 1348(c). Guidance on the scope of such inspections and the reporting of deficiencies is contained in volume II, chapter 24 of this manual.

7. Deepwater Ports

➔ See MSM VI, Chapter 2.

8. Mixed Use Waterfront Facilities

Some waterfront facilities fit into more than one facility type. For instance a facility may handle both oil and liquefied gases in bulk. In most cases there is a distinct separation between the portions of the facility that handles these different categories of product and each portion can be treated as a separate facility. In some cases the same area is used for different categories of product and that area must meet the requirements for more than one facility type. If the requirements conflict, the COTP should apply the requirements that provide the highest level of safety.

D. TYPES OF WATERFRONT FACILITY VISITS

1. Inspections

An inspection is a formal visit to a waterfront facility to ensure its safe operation and to verify compliance with applicable safety, security, and pollution prevention regulations. The applicable regulations for each type of facility are listed in paragraph B of this chapter. The frequency of inspection will be established by the COTP. Before the inspection visit, inspecting personnel should review the facility file for previous instances of noncompliance, outstanding deficiencies, hot work permits, and any alternatives, exemptions, or waivers granted. The latest facility's operations manual should also be reviewed. Consider contacting cognizant state and local authorities (local fire department, state department of environmental protection, etc.) to see if they want to conduct a joint inspection. Joint inspections promote interagency cooperation and reduce the inspection burden on the facility operator. After arriving at the facility, the inspection team should be accompanied by a facility representative and must record each discrepancy observed, including those corrected immediately. A report of the inspection, discrepancies found, and actions taken to correct those discrepancies shall be entered into the Marine Safety Information System in accordance with volume I, chapter 12 of this manual. The Waterfront Facility Inspection form (CG-4200) may be used as a guide for inspectors, however for most facility inspections the CG-4200 must be supplemented with a locally prepared checklist until an updated form is developed and distributed. A copy of the facility inspection report must be provided to the facility owner or operator.

2. Surveys

A facility survey is a detailed account of a facility's physical plant and equipment used to update Coast Guard files. Updated information must be entered into the following MSIS facility file supplements as applicable: FFID, FFPS, FFIP, FFFF, FFPF, FFMR, FFMS, and FFSD. Diagrams, photographs, manuals, permits, and similar information that cannot be stored in the MSIS facility file must be maintained by the COTP in a facility file that it is readily available for use when responding to an emergency at the facility. Each waterfront facility must be surveyed every two years. The survey should be combined with an inspection into a single facility visit. Use the Port Security Checklist as a guide in collecting physical security information during the survey. Physical security surveys must also be conducted at passenger ship terminals and category I and II Key Asset Protection Program facilities which are not inspected waterfront facilities. For further information on facility surveys see volume VI, chapter 1 and volume VII, chapter 2 of this manual. Special guidance on bulk liquid waterfront facility surveys is contained in volume IX of this manual (Being developed).

3. Transfer Monitors

When monitoring transfer operations between a vessel and facility, COTP personnel should monitor facility operations during the transfer as well as vessel operations. The facility portion of the visit should be recorded in MSIS as a facility transfer monitor.

4. Waste Reception Facility Inspections

Each waterfront facility that is used by oceangoing tank vessels or other oceangoing vessels of more than 400 gross tons must provide MARPOL waste reception facilities (33 CFR 158). For coastal ports, most waterfront facilities must have waste reception facilities for oil and garbage even if no hazardous materials are transferred to or from the facility. Guidelines for conducting waste reception facility inspections are contained in volume IX of this manual (Being developed). Waste reception facility inspections may be conducted during the same visit when other inspections are conducted.

5. Other Visits

Spot checks of waterfront facilities are not required. In addition to the above visits, it may be necessary to visit a waterfront facility for: container inspections, investigations, inspection discrepancy follow-ups, operations manual reviews, document and certificate checks, firefighting equipment checks, pollution prevention/ compliance checks, hot work permit checks, and pollution response plan drills. If possible, these visits should be conducted in conjunction with vessel boardings at the facility. Every visit to a waterfront facility must be documented in MSIS.

E. BULK LIQUEFIED NATURAL GAS WATERFRONT FACILITY INSPECTIONS

1. Applicable Regulations

Liquefied natural gas waterfront facilities are regulated separately from waterfront facilities handling other bulk liquid hazardous materials. Only Liquefied Natural Gas (LNG) facilities are regulated under 33 CFR 127. There is no capacity threshold for these facilities and the requirements apply equally to fuel and cargo. The LNG facility requirements apply only if the product is transferred or stored as a liquid at the facility. The regulations in 33 CFR 154 and 156 do not apply to LNG facilities. There are no separate regulations for mobile LNG facilities, however any pier, wharf, or area of land from which a mobile facility transfers LNG must meet the fixed facility requirements or obtain an alternative from the COTP.

2. Letter of Intent and Manuals

Each owner who intends to build a new waterfront facility to handle LNG in bulk, or plans new construction on an existing LNG facility, must notify the COTP of their intent. A letter of intent must be sent to the COTP at least 60 days before construction begins (33 CFR 127.007). If a facility becomes inactive, the owner or operator must submit a new letter of intent at least 60 days before it transfers LNG again. An LNG facility is considered active unless the facility owner or operator notifies the COTP that no LNG transfer operations are planned for the next 12 months. The COTP must review the letter of intent and construction plans. A letter of recommendation based on this review must be sent to the originator of the letter of intent and to the federal and local authorities having jurisdiction. The COTP should seek public comments before making a recommendation and, for new LNG facilities, should consider public hearings or meetings. If any of the information in the letter of intent changes, the owner or operator must notify the COTP within 15 days. At least 30 days before transferring LNG, the facility owner or operator must submit two copies of the operations manual and two copies of the emergency manual to the COTP for review. If the operations manual meets 33 CFR 127.305 and the emergency manual meets 33 CFR 127.307, the COTP should mark the manuals with the words "Examined by the Coast Guard" and return one copy of each manual to the sender. One copy of each examined manual must be retained with the facility file at the COTP office. If a manual does not meet the regulatory requirements, the COTP should either require changes or approve an acceptable alternative. During inspections, ensure that the operations and emergency manuals have been examined by the COTP and maintained up to date. During monitors, ensure that the operations manual is readily accessible to the facility person in charge and that the transfer procedures in the operations manual are followed.

3. Fire Safety The purpose of fire safety is to prevent fires and explosions on waterfront facilities. It also ensures that the resources necessary to respond to a fire are available and in working order should a fire occur. On bulk liquefied natural gas waterfront facilities the threat of fire extends not only from the flammable products but to their vapors as well. Vapor plumes from an LNG spill can travel a significant distance from the spilled liquid. The following fire safety requirements apply to bulk liquefied gas facilities:

a. Smoking Prohibitions. Under 33 CFR 127.615 smoking is prohibited in the marine transfer area of an LNG waterfront facility when there is LNG present. For practical purposes this means no smoking on an active facility. During LNG facility inspections and monitors, if you see someone smoking, make sure they are in an area where smoking is authorized. Also note anyone smoking on a vessel moored to the facility since smoking is prohibited on the weather decks of tank vessels moored alongside a dock under 46 CFR 35.30-5(d).

b. Hot Work. Hot work is any welding, burning, cutting, or similar operation that generates heat or sparks that could ignite a flammable material. A permit from the COTP is required for such operations on LNG waterfront facilities under 33 CFR 127.617. (See volume VI, section 1.H.5 of this manual.)

(1) General. The intent of this requirement is to prohibit indiscriminate hot work that could cause a fire or explosion by providing the COTP with authority to regulate such an operation. In some cases, local or unusual conditions may make some of these requirements unnecessary or not feasible. In these instances, the COTP may use the alternative authority provided by 33 CFR 127.017. In other cases, local or unusual conditions may make these requirements inadequate and additional conditions should be added to the permit. Any additional conditions specified by the COTP should be based upon sound safety standards such as NFPA or ANSI standards. The prime consideration in evaluating hot work permit requests must be safety. If the degree of safety is questionable, a permit should not be issued. Liaison with local fire authorities is encouraged when evaluating unusual permit requests. Permits may be issued for a single day, the duration of a single project, or for a longer period (up to one year) that will cover a number of projects, at the discretion of the COTP.

(2) References. NFPA has published the following standards for hot work: "Welding and Cutting," NFPA 51; "Welding Processes," NFPA 51B; and "Control of Gas Hazards on Vessels to be Repaired," NFPA 306. Hot work on a vessel moored to an LNG waterfront facility must be covered under a permit issued to the facility under 33 CFR 127.617.

(3) Enforcement. The hot work permit requirements should be enforced to the maximum extent possible. Where practical, hot work permit enforcement may be performed by local fire departments. However, COTP personnel must occasionally verify that the conditions on the permit are being followed, particularly on facilities that have a history of safety violations. If hot work is in progress during a facility inspection or monitor verify that the facility (or a vessel moored to the facility) has a permit for the hot work and that the conditions of the permit are being met.

c. Motor Vehicles on the Pier. Under 33 CFR 127.311 motor vehicles (cars and trucks) may only stop or park in designated parking spaces on an LNG facility. Motor vehicles may not be refueled on an LNG facility.

d. Electrical Installations. Under 33 CFR 127.105, electrical power systems (which include electrical wiring and equipment) on LNG facilities must conform to the National Electric Code (NFPA 70). LNG facilities must also have an emergency power source for the emergency shutdown system, communications equipment, firefighting equipment, and emergency lighting. During inspections and monitors, look for the following electrical hazards:

(1) Conditions which could cause arcing;

(2) Electric motors that are:

(a) Located too near combustible material;

(b) Located in damp place or subjected to corrosive vapors;

(c) Covered with rust, lint or dust;

(d) Burning out because of overloading or low voltage at motor terminals;

(e) Protected by improper overcurrent protection; or

(f) Producing excessive heat.

(3) Bare wires;

(4) Loose or frayed connections;

(5) Overloaded outlets;

(6) Corroded terminals;

(7) Lack of high voltage signs near transformers and switch boxes; and

(8) Defective insulation.

e. Open Fires. Open fires in lamps, barrels, drums, or similar apparatus are prohibited. These requirements should be strictly enforced within the marine transfer area when a pipe or tank contains LNG or its vapors (see 33 CFR 127.615).

f. Maintenance Stores and Supplies. Under 33 CFR 127.313, materials that may be stored in bulk on LNG facilities are limited to: LNG, Liquefied Petroleum Gas (LPG), vessel fuel, and oily waste from vessels. Other flammable products, such as solvents, lubricants, paints, and fuels, may be stored on LNG facilities only in amounts that could reasonably be used in one day. These flammable products must be stored in accordance with chapter 4 of NFPA 30. During inspections look for containers of flammable liquids or other hazardous materials left on the pier or wharf. Make sure containers in storage compartments are not leaking or left open so that vapors accumulate in the storage compartment.

g. Fire Extinguishing Equipment. Fire extinguishing and protection equipment is essential to the safe operation of any waterfront facility. The requirements for firefighting equipment on LNG facilities are provided in 33 CFR parts 127.601 through 127.611. They describe the required fire main systems, dry chemical systems, and portable fire extinguishers. The facility must have at least one international shore connection. Once installed, fire extinguishing and protection equipment must be maintained in good condition at all times (33 CFR 127.405). Under 33 CFR 127.601(b) fire appliances such as hydrants, standpipes, fire extinguishers, hose stations, and fire monitors must be red or some other conspicuous color and must be in locations that are readily accessible. During inspections, look for improperly marked fire appliances, material blocking access to fire appliances, and appliances that are not functional (excessive corrosion, missing fire hoses, etc.). Also make sure that the international shore connection is available.

h. Warning Signs. Warning signs must be displayed on each LNG waterfront facility at the point of transfer. The intent of this requirement is to warn persons and vessels approaching the facility of the hazardous nature of the operation. They must be visible from both the shore and the water. These signs must conform to the requirements in 33 CFR 127.113. Vessels carrying LNG in bulk are also required to display warning signs that meet the requirements in 46 CFR 154.1830.

4. Transfer Operations

a. Person-In-Charge (PIC). At all times during the transfer of a liquefied gas to or from a vessel, the transfer system in use must be under the supervision of a qualified "person in charge" [33 CFR 127.319(a)]. On an LNG facility, a person in charge must be trained and certified in accordance with 33 CFR 127.301 to be qualified. The training must include at least 48 hours of LNG transfer experience. Each person in charge must know: the hazards of the cargo being transferred, the regulations that apply to the operation, and the facility's operating and emergency procedures. Written certification of the training must be maintained at the facility. The person assigned as person in charge on the facility shall not be assigned as person in charge of the vessel's transfer operation or to any other duties that may prevent him from carrying out his duties as person in charge on the facility.

b. Communications. Communications between the person in charge on the facility and the person in charge aboard the vessel are vital to the safe transfer of LNG in bulk. The person in charge shoreside shall maintain communications in accordance with the requirements in 33 CFR 127.319(b)(1) and 33 CFR 127.111. During monitors, make sure that the person in charge has an effective means of communication. If there is some doubt as to the effectiveness of communications, require a communications check.

c. Transfer Connections. Connections between transfer hoses or loading arms and fixed piping must be secured with sufficient bolts and suitable gasket material to prevent leakage. The connections must allow for vessel movement within the limits of its moorings without placing strain on the transfer piping or loading arm. Specific requirements are contained in 33 CFR 127.315. During monitors, check transfer connections for the number of bolts used. Carefully check questionable connections for leaks. A portable combustible gas indicator can be used to check for natural gas leaks.

d. Preliminary Transfer Inspection. Before commencing a cargo transfer, the facility person in charge must ensure that the conditions for transfer have been met. This includes verifying that the hot work, warning sign, and transfer connection requirements have been met, as well as verifying that the person in charge aboard the vessel is ready to begin the transfer. On LNG facilities the items listed in 33 CFR 127.315 must be checked and a Declaration of Inspection (DOI) completed jointly with the vessel person in charge as required under 33 CFR 127.317. During monitors, ensure that the DOI is properly completed and signed.

5. Transfer System Testing Requirements

a. Transfer Hoses and Piping. On LNG facilities, each transfer hose, loading arm, and cargo transfer pipe must be hydrostatically tested at least once each year and each time major alterations are made to the system (see 33 CFR 127.407(a)). Each cargo transfer hose and pipe shall be subjected to at least 1.1 times its maximum allowable working pressure for at least 30 minutes during the test (see 33 CFR 127.407(b)). Bulk LNG hoses and piping must not be tested with LNG, but may be tested with non-hazardous liquids other than water. Where hydrostatic testing is impractical, the COTP may authorize pneumatic testing of cargo hoses and piping with the condition that the precautions in 46 CFR 56.97-35 are followed during testing. Before granting alternatives or waivers for hydrostatic tests, the COTP must consider the following factors:

(1) Length of transfer system under evaluation;

(2) Access to transfer system (buried, elevated, insulated, etc.);

(3) The presence of any relief valves in the system and their routine maintenance schedule;

(4) The age of the system;

(5) The history of the system (e.g., what commodities the system has been used for, major alterations made); and

(6) The date of the last hydrostatic test.

b. Other Transfer System Equipment. Other transfer system equipment must be periodically checked or tested to ensure proper operation and maintenance. The set pressure on each relief valve must be tested or the relief valve must be visually inspected during the annual piping test (see 33 CFR 127.403 and 127.407). The date and results of these tests and inspections must be recorded and maintained at the facility. During annual inspections, check facility records to verify that these tests and inspections have been recorded.

6. Occupational Safety

The Coast Guard and the Occupational Safety and Health Administration (OSHA) share responsibility for the safety of workers on waterfront facilities handling hazardous materials. The Coast Guard's primary responsibility in this area is the safe handling of hazardous materials. As liquid bulk facilities, LNG facilities are not covered by the OSHA marine terminal regulations in 29 CFR 1917. Instead, these facilities are covered by the general OSHA workplace regulations in 29 CFR 1910.

a. Lighting. Waterfront facilities must be adequately illuminated when handling hazardous materials during periods of darkness to prevent accidents. Adequate lighting is required under 33 CFR 127.109. The light level must be at least 55 lux at each transfer point and at least 11 lux in other parts of the transfer area. Measurements of light intensity should, if possible, be made with a light meter. Lights should be installed over aisles and in other locations where they will not be damaged by cargo handling equipment or vehicles. Light fixtures should be protected by wire guards unless mounted out of the normal reach of equipment and personnel. Open flame lights and lanterns using kerosene or gasoline are prohibited. When monitoring a transfer after dark, ensure that the work area lighting meets the regulatory requirements.

b. Cargo Information. Information on the cargo being transferred or stored at a facility is necessary to: contain and clean up cargo spills, safely extinguish cargo fires, and treat persons exposed to the cargo. Under 33 CFR 127.307 each LNG facility must have an emergency manual that contains information on emergency response, firefighting, and first aid procedures for LNG.

c. Warning Alarms. Warning alarms are intended to alert approaching vessels and the local community in the event of an LNG release. Each LNG facility must have both a siren and a rotating (or flashing) amber light meeting the specifications in 33 CFR 127.207. The adequacy of these warning alarms should be verified during the annual facility inspection. On LNG facilities, the light intensity and sound decibels should be verified from placards affixed to the equipment or equipment manuals. If appropriate placards and manuals are not available, compliance should be verified in the same manner as for LHG facilities.

7. Security

a. Guards. The security requirements in 33 CFR 127.701-127.711 do not specifically require guards, however they do require access control and security patrols which usually require guards. Trained guards are required in sufficient numbers to provide surveillance of the waterfront facility to: deter unlawful entry, deter vandalism, detect fire hazards, detect discharges of hazardous materials, and check the readiness of protective equipment. Guards should be thoroughly instructed in the operation of fire alarm boxes, fire hoses, portable fire extinguishers, and similar fire equipment. They should know the location of telephones and emergency equipment, emergency fire protection measures, and emergency notification procedures. The National Fire Protection Association (NFPA) has developed two standards applicable to guards that may be used in determining the adequacy of guards: Guard Service - NFPA 601, and Guard Operations - NFPA 601A. When determining whether the number of guards provided are adequate for a facility, the COTP should consider the security barriers and detection devices in place.

b. Guard Requirement Alternatives. Under 33 CFR 127.017, the COTP may approve alternatives to guards on LNG facilities where the stationing of guards is impractical. Alternatives for guard requirements should only be considered for small transfer facilities that are not manned between transfer operations and do not store bulk liquid hazardous materials on site, which is generally not applicable to LNG facilities. Such a facility may be secured by fencing and monitored by intrusion detection devices, cameras, or random patrols rather than permanent guards. When reviewing requests for alternatives to the guard requirements, the COTP must consider the security barriers and detection devices in place, the likelihood of intrusion, the proximity of population centers, and the danger presented by any tanks or piping containing hazardous materials.

c. Security Barriers. Fences, walls, and similar barriers act as a deterrent to unauthorized entry onto waterfront facilities handling or storing hazardous materials. Buildings, water bodies, ravines, and similar barriers may also be used to deter entry but may need to be augmented by safeguards such as fences, walls, patrols, surveillance cameras, or intrusion detection devices. Under 33 CFR 127.709, impounding spaces, control stations, and electrical power sources on LNG facilities must be within a fence or wall. Security barriers should be considered when determining the appropriate number of guards on the facility.

8. Records

LNG facilities must keep and make available to the COTP, certain records under 33 CFR sections 127.409 and 126.15(o). Records must be maintained of: alternatives approved by the COTP, equipment tests, and Declarations of Inspection. The official Coast Guard record for facility information is the MSIS facility file. A paper file shall be maintained by the COTP for each facility in the zone for any facility information that cannot be maintained in MSIS, including: a copy of the operations manual, a copy of the emergency manual, a copy of the work sheet or check list used during inspections, facility plans or diagrams, and similar information.

9. Relationship with Other Federal Agencies

Within the Department of Transportation (DOT), the Coast Guard and the Research and Special Programs Administration (RSPA) exercise overlapping authorities to regulate the location, design, construction, maintenance, and operation of LNG facilities adjoining U.S. navigable waters. Recognizing the overlap in agency responsibilities, the Commandant and the Administrator of RSPA signed a memorandum of understanding (MOU), in May 1986, to avoid duplication of regulatory efforts and to maximize the exchange of information (see volume X of this manual). Further information on this agreement can be obtained from Commandant (G-MPS).

F. BULK LIQUEFIED HAZARDOUS GAS WATERFRONT FACILITY INSPECTIONS

1. Applicable Regulations

Liquefied hazardous gas waterfront facilities are regulated separately from waterfront facilities handling LNG and other bulk liquid hazardous materials. Liquefied hazardous gases are those products listed in 33 CFR 126.10(d). LHG facilities must comply with the requirements under 33 CFR 126. There is no capacity threshold for LHG facility requirements. These requirements apply only if the product is transferred or stored as a liquid cargo at the facility. The regulations in 33 CFR 154 and 156 do not apply to LHG facilities. There are no separate regulations for mobile LHG facilities, however any pier, wharf, or area of land from which a mobile facility transfers LHG must meet the fixed facility requirements or obtain a waiver from the COTP.

2. General Permit

No letter of intent or operations manual is required for LHG facilities. Instead, each facility is automatically issued a general permit to handle, store, stow, load, discharge, or transport LHG under 33 CFR 126.27. If an individual decides to operate such a facility, no notice to the Coast Guard is required. Each COTP must be alert for changes in LHG operations within their COTP zone. Each LHG facility must meet certain conditions in 33 CFR parts 126.15 and 126.27. If a facility fails to meet those conditions the COTP may terminate or suspend the general permit to handle LHG. (See volume VI, section 1.H.1 of this manual.)

3. Fire Safety

The purpose of fire safety is to prevent fires and explosions on waterfront facilities. It also ensures that the resources necessary to respond to a fire are available and in working order should a fire occur. On bulk LHG waterfront facilities the threat of fire extends not only from the flammable products but to their vapors as well. Vapor plumes from a flammable liquefied gas spill can travel a significant distance from the spilled liquid. The following fire safety requirements apply to bulk liquefied gas facilities:

Smoking Prohibitions

a. Smoking Prohibitions. Under 33 CFR 126.15(b) smoking is prohibited on an LHG waterfront facility except where designated by the owner or operator of the facility. Smoking may only be permitted on LHG facilities in accordance with local ordinances and regulations. Where there are no local ordinances, the COTP should ensure that all locations classified as hazardous in NFPA 70 (generally within 15 meters of where flammable hazardous materials are stored) are posted as no smoking areas. Smoking restrictions generally do not apply if the LHG handled is not flammable. Questionable cases should be discussed with local authorities. Signs must be conspicuously posted indicating those areas where smoking is authorized and those areas where smoking is prohibited. It is not enough for the facility owner or operator to post signs, the restrictions must also be enforced. During LHG facility inspections and monitors look for "no smoking" signs near piping and tanks for flammable products. If you see someone smoking, make sure they are in an area where smoking is authorized. Also note anyone smoking on a vessel moored to the facility since smoking is prohibited on the weather decks of tank vessels moored alongside a dock under 46 CFR 35.30-5(d).

Hot Work

b. Hot Work. Hot work is any welding, burning, cutting, or similar operation that generates heat or sparks that could ignite a flammable material. Prior approval of the COTP is required for such operations on LHG waterfront facilities under 33 CFR 126.15(c). A hot work permit is the preferred means for giving COTP approval for hot work operations. (See volume VI, section 1.H.5 of this manual.)

(1) General. The intent of this requirement is to prohibit indiscriminate hot work that could cause a fire or explosion by providing the COTP with authority to regulate such an operation. In some cases, local or unusual conditions may make some of these requirements unnecessary or not feasible. In these instances, the COTP may use the waiver authority provided by 33 CFR 126.11. In other cases, local or unusual conditions may make these requirements inadequate and additional conditions should be added to the permit. Any additional conditions specified by the COTP should be based upon sound safety standards such as NFPA or ANSI standards. The prime consideration in evaluating hot work permit requests must be safety. If the degree of safety is questionable, a permit should not be issued. Liaison with local fire authorities is encouraged when evaluating unusual permit requests. Permits may be issued for a single day, the duration of a single project, or for a longer period (up to one year) that will cover a number of projects, at the discretion of the COTP.

(2) References. NFPA has published the following standards for hot work: "Welding and Cutting," NFPA 51; "Welding Processes," NFPA 51B; and "Control of Gas Hazards on Vessels to be Repaired," NFPA 306. Hot work on a vessel moored to an LHG facility must be covered under a permit issued to the facility under 33 CFR part 126.15(c).

(3) Enforcement. The hot work permit requirements should be enforced to the maximum extent possible. Where practical, hot work permit enforcement may be performed by local fire departments. However, COTP personnel must occasionally verify that the conditions on the permit are being followed, particularly on facilities that have a history of safety violations. If hot work is in progress during a facility inspection or monitor verify that the facility (or a vessel moored to the facility) has a permit for the hot work and that the conditions of the permit are being met.

Motor Vehicles on the Pier

c. Motor Vehicles on the Pier. Under 33 CFR 126.15(d), unattended motor vehicles may only remain on an LHG facility when parked in parking spaces designated by the facility owner or operator in conformance with local ordinances and regulations. If a vehicle is waiting to load or discharge cargo, equipment, supplies, or passengers it must be attended by a driver. The COTP may waive this requirement if the vehicle does not block the flow of traffic and the vehicle engine is stopped. The number of vehicles permitted on the pier or wharf at one time should be limited to permit free traffic flow. Filling vehicle fuel tanks while on the LHG facility, is prohibited under 33 CFR 126.15(e).

Equipment on the Pier Driven by Internal Combustion Engines

d. Equipment on the Pier Driven by Internal Combustion Engines. Additional safety requirements for LHG facilities are provided under 33 CFR 126.15(e) for equipment driven by an internal combustion engine that is regularly used on the waterfront facility. Such equipment includes fork lifts, generators, and pumps, as well as motor vehicles. The equipment must be kept free from excessive oil, grease, and lint so as not to constitute a fire hazard. Each piece of equipment must carry an approved fire extinguisher unless the equipment is operating in an area where extinguishers are available on the facility, and the COTP has approved the arrangement. Equipment that is not attached to the pier or wharf should not be stored or fueled on the pier or wharf. Such equipment should be stored or fueled in designated areas away from the pier or wharf.

Rubbish and Waste Materials

e. Rubbish and Waste Materials. The requirements in 33 CFR 126.15(f) address the fire hazards created by poor housekeeping on LHG facilities. Fire safety inspections should not be limited to obvious areas, but should include out-of-the-way places as well. Both the insides and outsides of sheds and other buildings should be examined. Hazards and potential hazards that could cause a fire to start or hinder firefighters should be noted and corrected. Inspectors should be alert to:

(1) Piles of dunnage or scrap;

(2) Rubbish or waste materials on piers or wharves;

(3) Sloppy carpenter and paint shops, etc.;

(4) Railroad cars laden with waste materials;

(5) Inadequate or unsuitable waste cans (rubbish should be kept in metal containers with covers, and removed or emptied at frequent intervals to prevent dangerous accumulations); and

(6) Hazardous accumulations of dust on trusses, girders, or other structural members.

Electrical Installations

f. Electrical Installations. Under 33 CFR 126.15(h) installations of electrical wiring and equipment on LHG facilities made after 28 August 1951 must be in accordance with accepted safe practices. Conformance to the National Electric Code and to local ordinances and regulations is considered to meet the safe practices requirement. Electrical equipment, fittings, and other devices must be approved for use by the Underwriters Laboratories, Inc. (UL), the Associated Factory Mutual Laboratories (FM), or the Canadian Standards Association (CSA). National Bureau of Standards (NBS) approval is also acceptable under 33 CFR 126.15(h), however NBS no longer issues such approvals. All electrical wiring and equipment, including that installed prior to 28 August 1951, must be maintained in a safe condition without defects or modifications that could cause a fire or personal injury. Defective or dangerous wiring, equipment, and devices must be replaced, removed or permanently disconnected. During inspections and monitors, look for the following electrical hazards:

(1) Conditions which could cause arcing;

(2) Electric motors that are:

(a) Located too near combustible material;

(b) Located in damp place or subjected to corrosive vapors;

(c) Covered with rust, lint or dust;

(d) Burning out because of overloading or low voltage at motor terminals;

(e) Protected by improper overcurrent protection; or

(f) Producing excessive heat.

(3) Bare wires;

(4) Loose or frayed connections;

(5) Overloaded outlets;

(6) Corroded terminals;

(7) Lack of high voltage signs near transformers and switch boxes; and

(8) Defective insulation.

Heating Methods

g. Heating Methods. Under 33 CFR 126.15(i) heating equipment on LHG facilities must be safely installed and maintained in good operating condition. The recommended guide for safe installation of heating equipment is the National Board of Fire Underwriters Building Code. For portable electric heating equipment, approval by CSA, FM, or UL should be used as a guide for safe design, and NFPA 70 should be used as a guide for safe installation. Adequate clearances must be provided for heating equipment to prevent undue heating of nearby combustible materials. In addition, 33 CFR 126.15(i) requires that spark arresters be provided if the heater uses solid fuel. Open fires in lamps, barrels, drums, or similar apparatus are prohibited. These requirements should be strictly enforced, particularly in areas within 30 meters of a pipe or tank containing flammable products. During inspections look for improper heaters in sheds or shelters on the facility.

h. Maintenance Stores and Supplies. Under 33 CFR 126.15(g) supplies that are regulated as "hazardous materials" under 49 CFR parts 171 through 179 may be kept on LHG facilities only in amounts necessary to meet normal operating requirements. These materials must be stored in appropriate storage compartments (paint lockers, etc.). During inspections look for containers of flammable liquids or other hazardous materials left on the pier or wharf. Make sure containers in storage compartments are not leaking or left open so that vapors accumulate in the storage compartment.

Fire Extinguishing Equipment

i. Fire Extinguishing Equipment. Fire extinguishing and protection equipment is essential to the safe operation of any waterfront facility. The quantity, type, and location of equipment required for LHG facilities will vary depending upon the products handled and the hazards they present. Under 33 CFR 126.15(j) fire extinguishing equipment must be available on each LHG facility in adequate quantities, locations, and types. The COTP should work with the local fire authority in determining the adequacy of fire equipment. NFPA 307 and NFPA 10 may be used as guides when determining adequacy of that equipment. If the fire equipment on an LHG facility is inadequate, the COTP must notify the facility operator of the problem in writing and provide the operator an opportunity to correct the situation. Once installed, fire extinguishing and protection equipment must be maintained in good condition at all times. Under 33 CFR 126.15(k) fire appliances such as hydrants, standpipes, fire extinguishers, hose stations, and fire alarm boxes must be conspicuously marked and readily accessible. The color used in marking depends upon local regulations but, generally, they are marked in red and their purpose or number shown in white lettering. The markings must be placed high enough that they will not be hidden by cargo, stanchions, columns, risers, or other obstructions. All locations of fire appliances should be numbered and indicated on the facility's floor plan. During inspections, look for improperly marked fire appliances, material blocking
access to fire appliances, and appliances that are not functional (excessive corrosion, missing fire hoses, etc.).

Warning Signs

j. Warning Signs. Warning signs must be displayed on each LHG waterfront facility at the point of transfer. The intent of this requirement is to warn vessels approaching the facility of the hazardous nature of the operation. They must face parallel to and perpendicular to the shoreline. They must be visible from vessels on the waterway at all times during the transfer. On LHG facilities, these signs must conform to the requirements in either 46 CFR 151.45-2(e)(1) or 46 CFR 153.955. Vessels carrying LHG in bulk are also required to display warning signs that meet the requirements in 46 CFR 35.30-1, 151.45-2, or 153.955 as applicable.

4. Transfer Operations

a. Person-In-Charge (PIC). When transferring LHG to or from a vessel, the transfer system in use must be under the continuous control and surveillance of a qualified "person in charge." To be qualified, the person in charge must be trained, and the training documented, in accordance with 33 CFR 126.15(o)(1). Evidence of training for persons in charge on LHG facilities must be provided to the COTP prior to the transfer. The person assigned as person in charge on the facility shall not be assigned as person in charge of the vessel's transfer operation or to any other duties that may prevent him from carrying out his duties as person in charge on the facility. The COTP may authorize a single person to be the person in charge on both the facility and the vessel if the proposed operations provide adequately for the safety of the vessel and the facility. However, such authorizations should not be routinely authorized for LHG transfers due to the complexity of transfer operations and the hazardous nature of the cargo.

b. Communications. Communications between the person in charge on the facility and the person in charge aboard the vessel are vital to the safe transfer of bulk liquefied gases. The person in charge shoreside shall maintain communications in accordance with 33 CFR 126.15(o)(3). During monitors, make sure that the person in charge has an appropriate means of communication. If there is some doubt as to the effectiveness of communications, require a communications check.

c. Transfer Connections. Connections between transfer hoses or loading arms and fixed piping must be secured with sufficient bolts and suitable gasket material to prevent leakage. The connections must allow for vessel movement within the limits of its moorings without placing strain on the transfer piping or loading arm. Specific requirements are contained in 33 CFR 126.15(o)(2). During monitors, check transfer connections for the number of bolts used. Carefully check questionable connections for leaks. A portable combustible gas indicator can be used to check for flammable gas leaks.

d. Preliminary Transfer Inspection. Before commencing a cargo transfer, the facility person in charge must ensure that the conditions for transfer have been met. This includes verifying that the hot work, warning sign, and transfer connection requirements have been met, as well as verifying that the person in charge aboard the vessel is ready to begin the transfer. When applicable, a copy of the vessel's DOI required under 46 CFR 35.35-30 should be obtained and, to the extent possible, the vessel's condition verified to be as stated on the DOI. During monitors, ensure that the vessel's DOI is properly completed and signed.

5. Transfer System Testing Requirements

a. Transfer Hoses and Piping. Each transfer hose, loading arm, and cargo transfer pipe must be hydrostatically tested at least once each year. On LHG facilities, each cargo transfer hose and pipe shall be subjected to at least 1.5 times its maximum allowable working pressure during the test (see 33 CFR 126.15(o)(7)(v)). LHG hoses and piping should not be tested with hazardous products, but may be tested with non-hazardous liquids other than water. Where hydrostatic testing is impractical, the COTP may authorize pneumatic testing of cargo hoses and piping with the condition that the precautions in 46 CFR 56.97-35 are followed during testing. Before granting alternatives or waivers for hydrostatic tests, the COTP must consider the following factors:

(1) Length of transfer system under evaluation;

(2) Access to transfer system (buried, elevated, insulated, etc.);

(3) The presence of any relief valves in the system and their routine maintenance schedule;

(4) The age of the system;

(5) The history of the system (e.g., what commodities the system has been used for, major alterations made); and

(6) The date of the last hydrostatic test.

b. Other Transfer System Equipment. Other transfer system equipment must be periodically checked or tested to ensure proper operation and maintenance. On LHG waterfront facilities, each cargo pump system and relief valve must be tested at least once each year. Each cargo pump pressure gauge must be calibrated at least once each year (see 33 CFR 126.15(o)(7)). The date and results of these tests and inspections must be recorded and maintained at the facility. During annual inspections, check facility records to verify that these tests and inspections have been recorded.

6. Occupational Safety The Coast Guard and the Occupational Safety and Health Administration (OSHA) share responsibility for the safety of workers on waterfront facilities handling hazardous materials. The Coast Guard's primary responsibility in this area is the safe handling of hazardous materials. As liquid bulk facilities, LHG facilities are not covered by the OSHA marine terminal regulations in 29 CFR 1917. Instead, these facilities are covered by the general OSHA workplace regulations in 29 CFR 1910.

a. Lighting. Waterfront facilities must be adequately illuminated when handling hazardous materials during periods of darkness to prevent accidents. On LHG facilities no lighting intensity is specified, however if it does not approximate the LNG facility requirements of at least 55 lux at each transfer point and at least 11 lux in other parts of the transfer area, the lighting should be considered inadequate. If the lighting on an LHG facility is inadequate, the COTP must notify the facility operator of the problem in writing and provide the operator an opportunity to correct the situation [33 CFR 126.15(n)]. Measurements of light intensity should, if possible, be made with a light meter. Lights should be installed over aisles and in other locations where they will not be damaged by cargo handling equipment or vehicles. Light fixtures should be protected by wire guards unless mounted out of the normal reach of equipment and personnel [33 CFR 126.15(n)]. Open flame lights and lanterns using kerosene or gasoline are prohibited [33 CFR 126.15(l)]. Temporary lighting, when required, must be obtained from battery powered flashlights or protected electric lamps that are energized from portable electric generators, located outside off the pier. When monitoring a transfer after dark, ensure that the work area lighting meets the regulatory requirements.

b. Cargo Information. Information on the cargo being transferred or stored at a facility is necessary to: contain and clean up cargo spills, safely extinguish cargo fires, and treat persons exposed to the cargo. Under 33 CFR 126.15(o)(2)(vii) the LHG facility person in charge must possess a cargo information card for each LHG handled. The cargo information card must include:

(1) The name of the cargo;

(2) The cargo's appearance, color, and odor;

(3) The hazards involved in handling the cargo;

(4) Any special handling procedures for the cargo;

(5) Procedures to follow if the cargo spills or leaks;

(6) Procedures for treating a person exposed to the cargo; and

(7) Firefighting procedures and extinguishing agents effective for combatting a cargo fire.

c. Warning Alarms. Warning alarms are intended to alert approaching vessels and the local community in the event of a liquefied gas release. Each LHG facility is considered a "facility of particular hazard" and must meet the requirement for a warning alarm in 33 CFR 126.16(b). The warning alarm may be either a rotating siren or a flashing light. The color of the rotating flashing light is not prescribed, however, amber is recommended because it is considered most effective in alerting personnel to a hazard. The adequacy of warning alarms should be verified during the annual facility inspection. The alarm should be activated while a member of the inspection team, located 1600 meters away, determines if it can be seen or heard. Inspectors should be particularly alert to obstructions that could prevent a warning light from being seen from the waterway.

7. Security

Guards

a. Guards. Trained guards are required in sufficient numbers to provide surveillance of the waterfront facility to: deter unlawful entry, deter vandalism, detect fire hazards, detect discharges of hazardous materials, and check the readiness of protective equipment. Guards should be thoroughly instructed in the operation of fire alarm boxes, fire hoses, portable fire extinguishers, and similar fire equipment. They should know the location of telephones and emergency equipment, emergency fire protection measures, and emergency notification procedures. The National Fire Protection Association (NFPA) has developed two standards applicable to guards that may be used in determining the adequacy of guards required under 33 CFR 126.15(a): Guard Service - NFPA 601, and Guard Operations - NFPA 601A. When determining whether the number of guards provided are adequate for a facility, the COTP should consider the security barriers and detection devices in place. If the guards for an LHG facility are found to be inadequate, the COTP must notify the facility operator of the problem in writing and provide the operator an opportunity to correct the situation.

Guard Requirement Waivers

b. Guard Requirement Waivers. Under 33 CFR 126.11, the COTP may waive the requirement for guards on LHG facilities where the stationing of guards is impractical or unnecessary. Waivers for guard requirements should only be considered for small transfer facilities that are not manned between transfer operations and do not store bulk liquid hazardous materials on site. Such a facility may be secured by fencing and monitored by intrusion detection devices, cameras, or random patrols rather than permanent guards. When reviewing requests for waiver from the guard requirements, the COTP must consider the security barriers and detection devices in place, the likelihood of intrusion, the proximity of population centers, and the danger presented by any tanks or piping containing hazardous materials.

Security Barriers

c. Security Barriers. Fences, walls, and similar barriers act as a deterrent to unauthorized entry onto waterfront facilities handling or storing hazardous materials. Buildings, water bodies, ravines, and similar barriers may also be used to deter entry but may need to be augmented by safeguards such as fences, walls, patrols, surveillance cameras, or intrusion detection devices. Security barriers are not specifically required on LHG facilities, but they should be considered when determining the appropriate number of guards under 33 CFR 126.15(a).

8. Records

LHG facilities must keep and make available to the COTP, certain records under 33 CFR 126.15(o). The facility must maintain records of waivers granted by the COTP and equipment tests. The official Coast Guard record for facility information is the MSIS facility file. A paper file shall be maintained by the COTP for each facility in the zone for any facility information that cannot be maintained in MSIS, including: a copy of the operations manual, a copy of the work sheet or check list used during inspections, facility plans or diagrams, and similar information.

G. PACKAGED AND DRY BULK WATERFRONT FACILITY INSPECTIONS

1. Applicable Regulations

Packaged and dry bulk waterfront facilities are regulated under 33 CFR 126. These regulations apply to any waterfront facility that handles, stores, stows, loads, discharges, or transports a packaged cargo regulated under 49 CFR parts 171-179 or a bulk cargo regulated under 46 CFR 148. The regulations in 49 CFR parts 171-179 also apply to facilities handling packaged hazardous materials.

2. Permit to Operate

a. General Permit. Under 33 CFR 126.27 a waterfront facility is automatically issued a general permit to handle, store, stow, load, discharge, or transport a packaged cargo regulated under 49 CFR parts 171-179 or a bulk cargo regulated under 46 CFR 148 (other than division 1.1 and 1.2 explosives). This general permit is issued on the condition that the requirements in 33 CFR 126.15 and 33 CFR 126.27 are met. If an individual decides to operate such a facility, no notice to the Coast Guard is required. If an operator fails to meet the requirements in 126.15 and 126.27, the COTP may terminate or suspend the general permit to handle dangerous cargo. (See volume VI, section 1.H.1 of this manual.)

b. Designated Dangerous Cargo Permit. Under 33 CFR 126.17 a waterfront facility may only handle, load, discharge, or transport division 1.1 and 1.2 explosives if the COTP issues a permit or waives the requirement for a permit. A permit is required for each transaction of handling, loading, discharging, or transporting a designated dangerous cargo and the conditions in 33 CFR 126.15 must be met. The permit automatically terminates at the conclusion of the transaction for which the permit was issued. The permit may be terminated or suspended by the COTP whenever he deems it necessary for safety or security reasons. (See volume VI, section 1.H.2 of this manual.)

3. Fire Safety

The purpose of fire safety is to prevent fires and explosions on waterfront facilities. It also ensures that the resources necessary to respond to a fire are available and in working order should a fire occur. On packaged and dry bulk waterfront facilities the threat of fire stems not only from flammable cargoes but from other flammable articles on the facility such as dunnage, building materials, and rubbish. The following fire safety requirements apply to packaged and dry bulk facilities:

Smoking Prohibitions

a. Smoking Prohibitions. 33 CFR 126.15(b) prohibits smoking on a waterfront facility except where designated by the owner or operator of the facility. Smoking may only be permitted on packaged and dry bulk facilities in accordance with local ordinances and regulations. Signs must be conspicuously posted. Where there are no local ordinances, the COTP should ensure that all locations classified as hazardous in NFPA 70 (generally within 15 meters of where flammable hazardous materials are stored) are posted as no smoking areas. Questionable cases should be discussed with local authorities. Under 49 CFR 176.182(f), smoking is prohibited on or near any vessel loading or unloading explosives at a waterfront facility, but may be allowed in designated smoking areas at a safe distance from the vessel. It is not enough for the facility owner or operator to post signs, the restrictions must also be enforced.

Hot Work

b. Hot Work. Hot work is any welding, burning, cutting, or similar operation that generates heat or sparks that could ignite a flammable material. Prior approval of the COTP is required for such operations under 33 CFR 126.15(c). A hot work permit is the preferred means for giving COTP approval for hot work operations. (See volume VI, section 1.H.5 of this manual.)

(1) General. The intent of this requirement is to prohibit indiscriminate hot work that could cause a fire or explosion by providing the COTP with authority to regulate such an operation. In some cases, local or unusual conditions may make some of these requirements unnecessary or not feasible. In these instances, the COTP may use the waiver authority provided by 33 CFR 126.11. In other cases, local or unusual conditions may make these requirements inadequate and additional conditions should be added to the permit. Any additional conditions specified by the COTP should be based upon sound safety standards such as NFPA or ANSI standards. Welding is prohibited at facilities, or on vessels moored thereto, when explosives are present under 33 CFR 126.15(c). No reference is made to the different classes of explosives; therefore, this condition may be overly restrictive in some cases. In this situation the COTP may use the waiver authority under 33 CFR 126.11 to maintain an acceptable level of safety without prohibiting reasonable operations on waterfront

facilities. The prime consideration in evaluating hot work requests must be safety. If the degree of safety is questionable, a permit should not be issued. Liaison with local fire authorities is encouraged when evaluating unusual permit requests. Permits may be issued for a single day, the duration of a single project, or for a longer period (up to one year) that will cover a number of projects, at the discretion of the COTP.

(2) References. NFPA has published the following standards for hot work: "Welding and Cutting," NFPA 51; "Welding Processes," NFPA 51B; and "Control of Gas Hazards on Vessels to be Repaired," NFPA 306. Hot work permits for vessels carrying explosives or other packaged hazardous materials moored at a facility are issued to the vessel under 49 CFR 176.54. Hot work on other vessels moored to a packaged or dry bulk waterfront facility are issued to the facility under 33 CFR part 126.15(c).

(3) Enforcement. The hot work permit requirements should be enforced to the maximum extent possible. Where practical, hot work permit enforcement may be performed by local fire departments. However, COTP personnel must occasionally verify that the conditions on the permit are being followed, particularly on facilities that have a history of safety violations. If hot work is in progress during a facility inspection or monitor verify that the facility (or a vessel moored to the facility) has a permit for the hot work and that the conditions of the permit are being met.

Motor Vehicles on the Pier

c. Motor Vehicles on the Pier. Under 33 CFR 126.15(d) transient trucks and automobiles are allowed to remain on the waterfront facility only for a period of time long enough to load or unload cargo, equipment, supplies, or passengers. If a vehicle is waiting to load or unload, it must be attended by a driver. Vehicle parking on the waterfront facility is permitted only in spaces that are designated for parking and marked off by the facility owner or operator in accordance with local ordinances. The number of vehicles permitted upon the pier or wharf at one time should be limited to permit free traffic flow. Vehicle engines must be stopped when loading and unloading cargo. Filling or draining vehicle fuel tanks or making repairs, while on the waterfront facility, is prohibited.

Equipment on the Pier Driven by Internal Combustion Engines

d. Equipment on the Pier Driven by Internal Combustion Engines. Additional safety requirements are provided under 33 CFR 126.15(e) for equipment driven by an internal combustion engine that is regularly used on the waterfront facility. Such equipment includes fork lifts, generators, and pumps, as well as motor vehicles. The equipment must be kept free from excessive oil, grease, and lint so as not to constitute a fire hazard. Each piece of equipment must carry an approved fire extinguisher unless the equipment is operating in an area where other facility extinguishers are available on the facility, and the COTP has approved the arrangement. Equipment that is not attached to the pier or wharf should not be stored or fueled on the pier or wharf. Such equipment should be stored or fueled in designated areas away from the pier or wharf.

Rubbish and Waste Materials

e. Rubbish and Waste Materials. The requirements in 33 CFR 126.15(f) address the fire hazards created by poor housekeeping. Inspections for fire hazards should not be limited to obvious areas, but should include out-of-the-way places as well. Both the insides and outsides of sheds and other buildings should be examined. Hazards and potential hazards that could cause a fire to start or hinder firefighters should be noted and corrected. Inspectors should be alert to:

(1) Piles of dunnage or scrap;

(2) Rubbish or waste materials on piers or wharves;

(3) Sloppy carpenter and paint shops, etc.;

(4) Railroad cars laden with waste materials;

(5) Inadequate or unsuitable waste cans (rubbish should be kept in metal containers with covers, and removed or emptied at frequent intervals to prevent dangerous accumulations); and

(6) Hazardous accumulations of dust on trusses, girders, or other structural members.

Electrical Installations

f. Electrical Installations. Under 33 CFR 126.15(h) installations of electrical wiring and equipment on packaged and dry bulk facilities made after 28 August 1951 must be in accordance with accepted safe practices. Conformance to the National Electric Code and to local ordinances and regulations is considered to meet the safe practices requirement. Electrical equipment, fittings, and other devices must be approved for use by the Underwriters Laboratories, Inc. (UL), the Associated Factory Mutual Laboratories (FM), or the Canadian Standards Association (CSA). National Bureau of Standards (NBS) approval is also acceptable under 33 CFR 126.15(h), however NBS no longer issues such approvals. All electrical wiring and equipment, including that installed prior to 28 August 1951, must be maintained in a safe condition without defects or modifications that could cause a fire or personal injury. Defective or dangerous wiring, equipment, and devices must be replaced, removed or permanently disconnected. During inspections and monitors, look for the following the electrical hazards:

(1) Conditions which could cause arcing;

(2) Electric motors that are:

(a) Located too near combustible material;

(b) Located in damp place or subjected to corrosive vapors;

(c) Covered with rust, lint or dust;

(d) Burning out because of overloading or low voltage at motor terminals;

(e) Protected by improper overcurrent protection; or

(f) Producing excessive heat.

(3) Bare wires;

(4) Loose or frayed connections;

(5) Overloaded outlets;

(6) Corroded terminals;

(7) Lack of high voltage signs near transformers and switch boxes; and

(8) Defective insulation.

Heating Methods

g. Heating Methods. Under 33 CFR 126.15(i) heating equipment on packaged and dry bulk facilities must be safely installed and maintained in good operating condition. The recommended guide for safe installation of heating equipment is the National Board of Fire Underwriters Building Code. For portable electric heating equipment, approval by CSA, FM, or UL should be used as a guide for safe design, and NFPA 70 should be used as a guide for safe installation. Adequate clearances must be provided for heating equipment to prevent undue heating of nearby combustible materials. In addition, 33 CFR 126.15(i) requires that spark arresters be provided if the heater uses solid fuel. Open fires in lamps, barrels, drums, or similar apparatus are prohibited. These requirements should be strictly enforced, particularly in areas within 100 feet of a pipe or tank containing flammable products. During inspections look for improper heaters in sheds or shelters on the facility.

Maintenance Stores and Supplies

h. Maintenance Stores and Supplies. Under 33 CFR 126.15(g) supplies that are regulated as "hazardous materials" under 49 CFR parts 171 through 179 may be kept on designated waterfront facilities only in amounts necessary to meet normal operating requirements. These materials must not be stored on piers or wharves, but in compartments that are remote from combustible materials. The compartments must be designed to provide ready access and safe storage. During inspections, make sure containers in storage compartments are not leaking or left open so that vapors accumulate in the storage compartment. Also verify that scrap materials, rags, and other debris is not left in the storage compartment.

Fire Extinguishing Equipment

i. Fire Extinguishing Equipment. Fire extinguishing and protection equipment is essential to the safe operation of any waterfront facility. The quantity, type, and location of equipment required for each facility will vary depending upon the types of hazards present. Under 33 CFR 126.15(j) fire extinguishing equipment must be available on each packaged and dry bulk waterfront facility in adequate quantities, locations, and types. The COTP should work with the local fire authority in determining the adequacy of fire equipment. NFPA 307 and NFPA 10 may be used as guides when determining adequacy of that equipment. If the fire equipment on a facility is inadequate, the COTP must notify the facility operator of the problem in writing and provide the operator an opportunity to correct the situation. Once installed, fire extinguishing and protection equipment must be maintained in good condition at all times. Under 33 CFR 126.15(k) fire appliances such as hydrants, standpipes, fire extinguishers, hose stations, and fire alarm boxes must be conspicuously marked and readily accessible. The color used in marking depends upon local regulations but, generally, they are marked in red and their purpose or number shown in white lettering. The markings must be placed high enough that they will not be hidden by cargo, stanchions, columns, risers, or other obstructions. All locations of fire appliances should be numbered and indicated on the facility's floor

plan. During inspections, look for improperly marked fire appliances, material blocking access to fire appliances, and appliances that are not functional (excessive corrosion, missing fire hoses, etc.).

4. Arrangement of Cargoes and Materials

Cargoes at a waterfront facility must be stowed in an orderly arrangement to permit complete access for firefighting and reduce the risk of fire.

a. Clear Areas. Clear areas are required when stacking or arranging cargo or materials on the waterfront facility or in buildings on the waterfront facility. At least 60 centimeters of clearance must be provided around all stacks or piles of cargo, freight, merchandise, or other materials (33 CFR 126.15(m)(1)). The cleared area must be kept free of rubbish, dunnage, or other obstructions. Around firefighting equipment and fire alarm boxes the cleared area must be at least 1.2 meters with a straight aisle at least one meter wide leading to the center aisle (33 CFR 126.15(m)(3) and (4)). The main aisle must be at least 2.5 meters wide and at least six meters wide if fire truck access is required (33 CFR 126.15(m)(5)). Cross aisles, at least 1.5 meters wide, must be located at least every 23 meters along the facility or within the building (33 CFR 126.15(m)(6)).

b. Stacking. Under 33 CFR 126.15(m)(2), no cargoes, freight, merchandise, or materials may be stacked closer than 90 centimeters from the ceiling of a building or its structural members. Nor may they be stacked closer than 30 centimeters from sprinkler heads. Packaged cargoes, freight, merchandise, or materials that are flammable or combustible may not be tiered higher than 3.7 meters on the waterfront facility. This includes containers as well as pallets, boxes, paper, etc. This restriction is very broad in scope and was intended to protect older facilities constructed at least partially of wood. The COTP may waive this requirement, however the safety implications must be carefully considered. The following NFPA standards should be used as guidelines when considering waivers of cargo arrangement and storage requirements:

Standard Code	Title
NFPA 231	Indoor General Storage
NFPA 231A	Outdoor General Storage
NFPA 307	Operation of Marine Terminals
NFPA 490	Ammonium Nitrate

5. Occupational Safety

The Coast Guard and the Occupational Safety and Health Administration (OSHA) share responsibility for the safety of workers on waterfront facilities handling hazardous materials. The Coast Guard's primary responsibility in this area is the safe handling of hazardous materials. Packaged and dry bulk facilities are covered by the OSHA marine terminal regulations in 29 CFR 1917. Inspectors should be aware of these OSHA regulations because they may cover safety situations not covered by Coast Guard regulations. The following safety requirements apply to most waterfront facilities:

Lighting

a. Lighting. Waterfront facilities must be adequately illuminated when handling hazardous materials during periods of darkness to prevent accidents. Adequate lighting is required under 33 CFR 126.15(l), for packaged and dry bulk facilities. No lighting intensity is specified, however it should meet the OSHA requirements in 29 CFR 1917.123 which require lighting of at least 55 lux in each active work area, at least 11 lux in other work areas, and at least 5 lux for security purposes. Measurements of light intensity should, if possible, be made with a light meter. Lights should be installed over aisles and in other locations where they will not be damaged by vehicle movements or cargo handling. Light fixtures should be protected by wire guards unless mounted out of the normal reach of equipment and personnel. Open flame lights and lanterns using kerosene or gasoline are prohibited. Temporary lighting, when required, must be obtained from battery powered hand lamps or protected electric lamps that are energized from portable electric generators, located outside of the building or off the pier.

Cargo Handling Equipment

b. Cargo Handling Equipment. No specific Coast Guard requirements have been set for cargo handling equipment on packaged or dry bulk facilities, however OSHA has set the following requirements:

(1) Cargo slings must meet the requirements in 29 CFR 1917.13.

(2) Ropes, chains, blocks, and hooks must meet the requirements in 29 CFR 1917.42.

(3) Powered industrial trucks must meet the requirements in 29 CFR 1917.43.

(4) Conveyors must meet the requirements in 29 CFR 1917.48.

(5) Spouts, chutes, hoppers, bins and similar equipment must meet the requirements in 29 CFR 1917.49.

Warning Alarms

c. Warning Alarms. Packaged or dry bulk facilities that handle division 1.1 or 1.2 explosives, oxidizing material or blasting agents requiring a permit (primarily ammonium nitrates), or highway route controlled quantities of radioactive material, are considered facilities of particular hazard. These facilities are required to have warning alarms under 33 CFR 126.16(b). Warning alarms are intended to alert approaching vessels and the local community in the event of an imminent explosion or radioactive release. Each facility of particular hazard must have either a rotating siren or a flashing light that can be heard or seen at least one mile away. The color of the rotating flashing light is not prescribed, however, amber is recommended because it is considered most effective in alerting personnel to a hazard. The adequacy of warning alarms should be verified during the annual facility inspection by activating the alarm while a member of the inspection team, located 1600 meters away, determines if it can be seen or heard. Inspectors should be particularly alert to obstructions that could prevent a warning light from being seen from the waterway.

6. Security

Guards

a. Guards. Trained guards are required in sufficient numbers to provide surveillance of the waterfront facility to: deter unlawful entry, deter vandalism, detect fire hazards, detect discharges of hazardous materials, and check the readiness of protective equipment. Guards should be thoroughly instructed in the operation of fire alarm boxes, fire hoses, portable fire extinguishers, and similar fire equipment. They should know the location of telephones and emergency equipment, emergency fire protection measures, and emergency notification procedures. The National Fire Protection Association (NFPA) has developed two standards applicable to guards that may be used in determining the adequacy of guards required under 33 CFR 126.15(a): Guard Service - NFPA 601, and Guard Operations - NFPA 601A. When determining whether the number of guards provided are adequate for a facility, the COTP should consider the security barriers and detection devices in place. If the guards are found to be inadequate, the COTP must notify the facility operator of the problem in writing and provide the operator an opportunity to correct the situation.

Guard Requirement Waivers

b. Guard Requirement Waivers. Under 33 CFR 126.11, the COTP may waive the requirement for guards on packaged and dry bulk facilities where the stationing of guards is impractical or unnecessary. Waivers for guard requirements should only be considered for small transfer facilities that do not store large quantities of hazardous materials on site. Such a facility may be secured by fencing and monitored by intrusion detection devices, cameras, or random patrols rather than permanent guards. Before approving waivers from the guard requirements, the COTP must consider the security barriers and detection devices in place, the likelihood of intrusion, the proximity of population centers, and the danger presented by hazardous materials stored at the facility.

Security Barriers

c. Security Barriers. Fences, walls, and similar barriers act as a deterrent to unauthorized entry onto waterfront facilities handling or storing hazardous materials. Buildings, water bodies, ravines, and similar barriers may also be used to deter entry but may need to be augmented by safeguards such as fences, walls, patrols, surveillance cameras, or intrusion detection devices. Security barriers are not specifically required on waterfront facilities but they should be considered when determining the appropriate number of guards under 33 CFR 126.15(a).

7. Records

Packaged and dry bulk waterfront facilities are not required to maintain records for the Coast Guard, but should keep and make available to the Coast Guard inspectors reports from prior Coast Guard inspections of the facility. The official Coast Guard record for facility information is the MSIS facility file. A paper file shall be maintained by the COTP for each facility in the zone to maintain any facility information that cannot be maintained in MSIS, including: a copy of the work sheet or check list used during inspections, facility plans, photographs, diagrams, and similar information.

H. ENTRY ONTO PRIVATE PROPERTY

1. General

Entry into private property that is part of a shoreline adjoining U.S. waters may be necessary to undertake immediate response activities and subsequent investigations, and to perform inspections to ensure compliance with regulations. In Commandant (G-LMI) memo 5800 of 25 SEP 1972, the Chief Counsel of the Coast Guard determined that, in general: Coast Guard personnel have the authority to enter private property on or near navigable waters without a warrant to carry out discharge response activities, and related investigations or inspections; and may also conduct warrantless administrative inspections where the property is subject to regulation concerning pollution prevention and hazardous materials.

2. Access Authorized

Inspections should be conducted on a prearranged basis whenever practical, with a representative of the owner or operator accompanying the inspection team. Monitors should be conducted without advance notice while a transfer is in progress. Industry members have, historically, responded to the Coast Guard's needs by permitting inspection personnel almost unlimited access to their property. It is a rare occasion when a Coast Guard member is "turned away at the gate."

3. Access Denied

When this occurs, the COTP/OCMI must determine what actions are appropriate. Force shall not be used in non-emergency situations. If a search warrant is considered necessary, the district commander (dl) should be contacted for assistance. The COTP should point out to an owner who refuses entry to his or her property that:

a. A packaged, dry bulk, or liquefied hazardous gas facility's general permit may be revoked if an inspection is not completed. Without an inspection, there can be no verification that the facility or structure is entitled to a permit to continue operations (33 CFR 126.31 and 160.109).

b. Vessels may be prohibited from mooring at the facility, to prevent possible damage to the vessel brought about by hazardous conditions. A vessel already moored may be required to depart the facility for the same reason (33 CFR 160.111).

I. CORRECTIVE ACTIONS AND PENALTY AUTHORITY

1. Corrective Actions

Effective corrective actions are necessary to deter repeat discrepancies that endanger lives, property, and the environment. At a minimum, the discrepancy must be corrected. Additional actions provide a greater incentive for future compliance. The COTP must select an appropriate action for each discrepancy depending upon the seriousness of the discrepancy and the facility operator's history of compliance. Each discrepancy found and each corrective action taken must be documented in MSIS. Chapter 4 in volume I of this manual provides additional guidance on selecting appropriate actions. If a civil penalty is selected, the COTP must recommend an appropriate penalty using the guidance in COMDTINST 16200.3A. For each discrepancy found, one or more of the following actions may be taken:

a. On-the-spot correction.

b. Violation case: COTP Letter of Warning issued.

c. Violation case: Forwarded to district commander for civil penalty action. (By law, all violations of 49 CFR 171-179 requirements must be forwarded for civil penalty action by the district commander.)

d. COTP Order (suspend transfer, prohibit vessels from mooring at facility, etc.).

e. Action against a facility's Letter of Adequacy or General Permit.

f. Referral to a U.S. Attorney for prosecution (in extreme cases).

2. Penalty Authority

When developing a violation case, the correct penalty authority must be cited. The appropriate penalty authorities are listed below. Further guidance on appropriate penalties for violation cases is contained in COMDTINST 16200.3A.

Bulk Liquefied Natural Gas Waterfront Facilities

a. Bulk Liquefied Natural Gas Waterfront Facilities. The regulations in 33 CFR 127 are issued under the statutory authority of the PWSA. Violations are subject to the civil and criminal penalties under 33 U.S.C. 1232. The maximum civil penalty is $25,000 per violation and each day of a continuing violation constitutes a separate violation.

Bulk Liquefied Hazardous Gas Waterfront Facilities

b. Bulk Liquefied Hazardous Gas Waterfront Facilities. The regulations in 33 CFR 126 are issued under the statutory authority of the PWSA. Violations are subject to the civil and criminal penalties under 33 U.S.C. 1232. The maximum civil penalty is $25,000 per violation and each day of a continuing violation constitutes a separate violation.

Dry Bulk Waterfront Facilities

c. Dry Bulk Waterfront Facilities. The regulations in 33 CFR 126 are issued under the statutory authority of the PWSA. Violations are subject to the civil and criminal penalties under 33 U.S.C. 1232. The maximum civil penalty is $25,000 per violation and each day of a continuing violation constitutes a separate violation.

Packaged Hazardous Material Waterfront Facilities

c. Packaged Hazardous Material Waterfront Facilities. These facilities are also regulated under 33 CFR 126 and violations of those requirements are subject to the civil and criminal penalties under 33 U.S.C. 1232. Packaged hazardous materials are also subject to the requirements in 49 CFR 171-179 which are issued under the HMTA. Those violations are subject to the penalties under 49 U.S.C. 1809 which provides for a maximum civil penalty of $25,000 per violation or possible criminal prosecution. The law requires a minimum penalty of at least $250 per violation. Therefore, all violations of the 49 CFR 171-179 requirements must be forwarded for civil penalty action by the district commander.