CHAPTER 9

PETROLEUM, OIL AND LUBRICANTS

9-1 SCOPE

This Chapter contains criteria to control and abate pollution resulting from the storage, transportation and distribution of petroleum products. Criteria for underground storage tanks containing petroleum, oil and lubricants (POL) products are addressed in Chapter 19.

9-2 DEFINITIONS

9-2.1 Above Ground Storage Tank (AST). Any tank, include above ground piping connected thereto,larger than 415 liters (110 gallons), used to contain POL products or hazardous substances and the volume of which, including volume of connected pipes, is more 90 % above the surface of the ground.

9-2.2 Bulk Storage Tanks. Refer to field-erected tanks, usually having a capacity greater than 190,000 liters (50,000 gallons), and constructed above or below ground.

9-2.3 Petroleum, Oil, and Lubricants (POL). Include, but is not limited to, petroleum and petroleum-based substances comprised of complex blends of hydrocarbons derived from crude oil such as motor fuels, residual fuel oils, lubricants, petroleum solvents and used oils.

9-2.4 Pipeline Facility. include new and existing pipes, pipeline rights of way, auxiliary equipment (e.g., valves, manifolds, etc.), and building or other facilities used in the transportation of POL.

9-2.5 POL Facility. An installation with any individual above ground tank of 2,500 liters (660 gallons) or greater; aggregate above-ground storage of 5,000 liters (1,320 gallons) or greater; UST storage of greater than 15,900 liters (4,200 gallons); or a pipeline facility as identified in Section 9-2.4, above.

9-2.6 Storage Tank. A fixed container designed to store POL.

9-2.7 Underground Storage Tank (UST). Any tank including underground piping connected thereto, larger than 415 liters (110 gallons), that is used to contain POL products or hazardous substances and the volume of which, including the volume of connected pipes, is 10 percent or more beneath the surface of the ground, but does not include:

a. Septic tanks;

b. Stormwater or wastewater collection systems;

c. Flow through process tanks;

d. Surface impoundments, pits, ponds or lagoons; or

e. Tanks situated in an underground area (i.e. basement, cellar, shaft or tunnel) upon or above the surface of the floor.

9-3 CRITERIA

9-3.1 Spill Prevention and Countermeasures. A Spill Prevention Control and Countermeasure (SPCC) Plan must be written specifically for each POL storage and distribution facility, certified by a registered professional

engineer or equivalent, reviewed annually, and updated as necessary. The SPCC Plan will, as a minimum, contain the following:

a. General information on the installation including name, type of function, location and address, charts of drainage patterns, and maps showing locations of facilities.

b. An inventory of storage, handling and transfer facilities that could possible produce a spill of POL. For each listing, include a prediction of the direction and rate of flow, and total quantity of POL that might be spilled as a result of a major failure.

c. A detailed description of countermeasures, including structures and equipment for diversion and containment of spills, for each facility listed in the inventory.

d. A description of deficiencies in spill prevention and control measures at each facility listed in the inventory, to include corrective measures required, procedures to be followed to correct listed deficiencies and any interim control measures in place.

e. Written procedures for:

(1) Operations to preclude spills of POL;

(2) Inspections; and

(3) Record keeping requirements

9-3.2 General Tank Provisions. All POL above-ground storage tanks must meet the following requirements:

a. All above-ground POL (larger than 110 gallons) storage tanks must be provided with a secondary means of containment (dike and basin or be of modern design with a double-walled vaulted AST retrofitted with high level alarm and/or pump cut off switches) for the entire contents, plus sufficient freeboard (6 inches or 1 foot depending on local weather condition) to allow for precipitation and expansion of product.

b. Maximum permeability for diked areas will be 10^{-7} cm/sec (If modern doubled-walled or double-walled vaulted ASTs are used, this does not apply).

c. Drainage of stormwaters from diked areas will be controlled by a valve that is locked closed when not in active use (If modern double-walled or double-walled vaulted ASTs are used, this does not apply).

d. Before draining stormwaters from diked areas they will be inspected for petroleum sheen. If a petroleum sheen is present it must be collected with adsorbent material prior to drainage, or treated using an oil-water separator. Disposal of adsorbent material exhibiting the hazardous characteristics in Appendix A will be in accordance with Chapter 6 of this document (If modern double-walled or double-walled vaulted ASTs are used, this does not apply).

9-3.3 Additional Tank Wastes Provisions. POL tank cleaning wastes frequently have hazardous characteristics (as defined in Appendix A) and must be handled and disposed of according to the requirements of Chapter 6 of this document. These wastes and handling procedures include:

a. Tank cleaning wastes (sludge and wash waters) will be tested for hazardous characteristics as defined in Appendix A. Tank cleaning waste with hazardous characteristics will be disposed of in accordance with the criteria of Chapter 6 of this document.

b. Tank bottom waters, which are periodically drained from bulk storage tanks, will be collected and tested for hazardous characteristics. Tank bottom waters with hazardous characteristics must be disposed of in accordance with Chapter 6 of this document.

9-3.4 General POL Pipeline Provisions for Testing and Maintenance. All pipeline facilities carrying POL must be tested and maintained in accordance with 49 CFR 195 or equivalent. This includes these requirements:

a. Each pipeline operator handling POL will prepare and follow a procedural manual for operations, maintenance and emergencies.

b. Each new pipeline system and each system in which pipe has been replaced or relocated must be hydrostatically tested, in accordance with 49 CFR 195 or equivalent, without leakage.

9-3.5 General POL Pipeline Construction. All pipeline facilities with a construction start date after 1 October 1995 will be designed and constructed to meet 49 CFR 195 or equivalent.

9-3.6 POL Spills and Leaks. To control accidental POL releases, the installation must follow the guidance in the spill plan.

a. Immediate steps are:

(1) Stop the leak

(2) Control the spill; and

(3) Call for help

b. Follow-on steps are:

(1) Act to prevent migration of released POL into soils and nearby surface waters;

(2) Continue to monitor and mitigate any fire and safety hazards posed by vapors or free product;

(3) Determine soil and water cleanup action; and

(4) Begin free product removal as soon as possible.

9-3.7 Markers and Signs. ASTs should have a white sign larger than 0.3 meters wide and 0.6 meters long (approx. 12 in by 24 in), or clearly visible from 16 meters (approx. 50 ft). The sign should contain the following information in English and Japanese letters: identification number, maximum storage capacity, the title and telephone number of the point of contact, and state that "DANGER: NO FLAMMABLE OR IGNITION SOURCES WITHIN 50 FEET OR 16 METERS" in red letters.

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