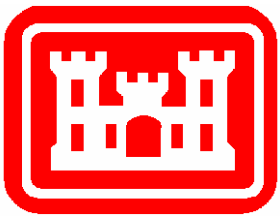
PUBLIC WORKS TECHNICAL BULLETIN 200-1-38
31 OCTOBER 2006

GUIDELINES FOR COMPLYING WITH THE OIL POLLUTION PREVENTION REGULATION



Public Works Technical Bulletins are published by the U.S. Army Corps of Engineers, Washington, DC. They are intended to provide information on specific topics in areas of Facilities Engineering and Public Works. They are not intended to establish new DA policy.

DEPARTMENT OF THE ARMY
U.S. Army Corps of Engineers
441 G Street, NW
Washington, DC 20314-1000

CEMP-CE

Public Works Technical Bulletin 31 October 2006

No. 200-1-38

FACILITIES ENGINEERING
ENVIRONMENTAL

GUIDELINES FOR COMPLYING WITH THE OIL POLLUTION PREVENTION REGULATION

1. Purpose. The purpose of this Public Works Technical Bulletin (PWTB) is to provide Army installation Directorate of Public Works (DPW) personnel with guidelines for compliance with 40 CFR 112 (the Oil Pollution Prevention Regulation), which requires a Spill Prevention, Control, and Countermeasure (SPCC) Plan. This Bulletin provides information on spill prevention for mobile oil storage containers (Army fuel tanker trucks) and oil-containing electrical equipment.

2. Applicability. This PWTB applies to all U.S. Army facilities responsible for compliance with the Federal Oil Pollution Prevention regulation found in 40 CFR 112 (17 July 2002), specifically, those with mobile oil storage containers and oil-containing electrical equipment.

3. Reference.

a. Army Regulation (AR) 200-1, Environmental Protection and Enhancement (21 February 1997).

b. 40 CFR 112 (17 July 2002). (The revised Spill Prevention, Control and Countermeasure (SPCC) final rule became effective 17 July 2002), accessible through URL: http://www.epa.gov/oilspill/pdfs/40cfr112.pdf

c. Department of the Army Pamphlet (DA PAM) 200-1, Environmental Protection and Enhancement (17 January 2002).

4. Discussion.

a. The Oil Pollution Prevention Regulation has two sets of requirements: the Spill Prevention, Control and Countermeasure Plan Rule (an oil spill prevention program) and the Facility Response Plan rule (an oil spill response program). All U.S. Army facilities with fuel tanker truck(s) or oil-containing electrical equipment must have an SPCC Plan in place. This PWTB is meant to help Army installation DPW personnel author or develop an appropriate SPCC Plan.

b. In 1973, the U.S. Environmental Protection Agency (USEPA) issued the Oil Pollution Prevention Regulation (40 CFR 112) to address the oil spill prevention provisions contained in the Clean Water Act of 1972. On 17 July 2002, the USEPA amended 40 CFR 112. The July 2002 final rule includes new subparts outlining the requirements for various classes of oil, revises the applicability of the regulation, amends the requirements for completing the SPCC Plans, and makes other modifications. The changes to the SPCC rules affect military installations and may require significant changes to current SPCC plans.

c. The SPCC rule applies to a “non-transportation-related” onshore and offshore facility that drills, produces, gathers, stores, processes, refines, transfers, distributes, or consumes oil and that, due to its location, could reasonably be expected to discharge oil in harmful quantities into the navigable waters of the United States or adjoining shorelines. The SPCC rule does not apply to transportation-related onshore or offshore facilities. Most commonly, this refers to trucks transporting oil on the road. When tanker trucks offload their oil cargo into bulk storage containers, or when tanker trucks are parked overnight (discussed in more detail later), the SPCC rule does apply. Otherwise, these facilities are subject to the authority of the U.S. Department of Transportation. The revised rule clarifies that “users” of oil are also subject to the SPCC rule.

d. Section 112.1(d)(2) of 40 CFR exempts a facility from the SPCC rule if a facility meets both of the following criteria:

i. The first criterion is whether a facility has a completely buried storage capacity of a facility that is 42,000 gal or less of oil. (The term “completely buried” is defined in Appendix C.) Completely buried tanks that are regulated under 40 CFR 280 (Federal underground storage tank [UST] regulation)

or 40 CFR 281, “Approval of State Underground Storage Tank Programs”) do not count in the calculation of the 42,000 gallon threshold. Permanently closed tanks (see Definitions) also do not count in the calculation of that threshold.

ii. The second criterion for a facility exemption to the SPCC rule is whether the aggregate aboveground storage capacity of a facility is 1,320 gallons or less of oil. For purposes of the exemption, only oil containers with a storage capacity of 55 gallons or more are counted. The aggregate aboveground storage capacity of a facility does not include the capacity of containers that are permanently closed.

e. Under the revised SPCC rule, the storage capacity contained in operating equipment at a facility, i.e., “users” of oil, counts toward the thresholds for completely buried and aboveground oil storage capacities. For example, the storage capacity of aboveground oil-filled operational equipment such as electrical transformers counts towards the aboveground capacity threshold. But only those oil-filled operating equipment with oil storage capacities of 55 gallons or more count toward the regulatory thresholds. This is because the July 2002 rulemaking established a de minimis container capacity size when calculating regulatory storage capacity thresholds. Also, the revised rule raises the threshold for aboveground storage capacity by eliminating the provision that triggers the requirement to prepare and implement an SPCC Plan if any single oil container has a storage capacity more than 660 gallons.

f. The USEPA issued additional final rules on 17 April 2003 and again on 11 August 2004. These rules extend the deadlines by which facilities must amend (or for new facilities, prepare) and implement their SPCC Plans. The new compliance dates are 17 February 2006, to amend an existing SPCC Plan, and August 18, 2006, to implement the Plan. Affected facilities that start operations between 16 August 2002 and 18 August 2006, must prepare and implement an SPCC Plan by 18 August 2006. Affected facilities that become operational after 18 August 2006 must prepare and implement an SPCC Plan before starting operations.

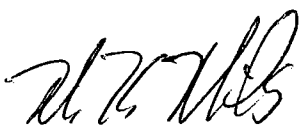
g. Appendix A to this PWTB outlines spill prevention planning for Army fuel tanker trucks and oil-containing electrical equipment. Appendix B lists the revised SPCC rule sections and applicable requirements. Appendix C defines relevant terminology, e.g., of “non-transportation onshore” and “offshore facility.”

5. Points of Contact. HQUSACE is the proponent for this document. The POC at HQUSACE is Mr. Malcolm E. McLeod, CEMP-II, 202-761-0632, or e-mail: Malcolm.E.Mcleod@hq02.usace.Army.mil.

Questions and/or comments regarding this subject should be directed to the technical POC:

U.S. Army Engineer Research and Development Center
Construction Engineering Research Laboratory
ATTN: CEERD-CN-B (Elon P. Zeigler)
2902 Newmark Drive
Champaign, IL 61822-1072
Tel. (217) 373-7256
FAX: (217) 373-6724
e-mail: Elon.P.Zeigler@erdc.usace.Army.mil

FOR THE COMMANDER:



M.K. MILES, P.E
Acting, Chief, Engineering and Construction
Directorate of Civil Works

Appendix A
Spill Prevention Planning for Army Fuel Tanker Trucks and Oil-Containing Electrical Equipment

1. 40 CFR 112 outlines the requirements for both the prevention of and response to oil spills. It is the prevention aspect of the rule that requires the preparation and implementation of Spill Prevention, Control, and Countermeasure (SPCC) Plans. The SPCC Plan must detail how the regulated facility will take appropriate measures to prevent and combat an oil spill. It is these SPCC Plan requirements that apply to mobile oil storage containers and to oil-containing electrical equipment, such as electrical transformers, which are subject of this PWTB.

2. Operational use of oil. Facilities that use oil operationally include electrical substations, facilities containing electrical transformers, and certain hydraulic or manufacturing equipment. Specific equipment examples may include oil-filled electrical transformers, electrical switches, and constant current regulators. Electrical transformers are commonly cooled with mineral oil (although some are cooled with synthetic fluids and others are air-cooled). The fluid serves as an insulator to protect against the high voltages within the transformers and as a heat dissipater. (Note: Polychlorinated biphenyls [PCBs] were used as coolants and lubricants in transformers, capacitors, and other electrical equipment. PCBs have been banned from such uses. Even after two decades of regulatory control, PCB spills continue to occur and to be discovered. The equipment and materials that continue to contain PCBs either date from before the ban, or have been contaminated over time. Due to the potential adverse effects if released into the environment, PCBs require special handling, storage and disposal measures.)[*]

3. Section 112.1 (b) of the revised rule clarifies that using oil operationally may subject a facility to SPCC jurisdiction unless exemptions for oil storage capacity and location apply. Such a facility might reasonably be expected to discharge oil as described in Section 112.1(b). Therefore, the prevention of

[*] Army guidance on management, handling, and control of PCBs is outlined in Army Pamphlet 200-1, Environmental Protection and Enhancement (17 January 2002), accessible through URL: http://www.army.mil/usapa/epubs/200_Series_Collection_1.html

discharges from such facility falls within the scope of the statute.

a. Oil-filled equipment is not considered a bulk storage container. In 40 CFR 112, the USEPA distinguishes the bulk storage of oil from the operational use of oil. The USEPA defines “bulk storage container” in the final rule to mean any container used to store oil. The storage of oil may be prior to use, while being used, or prior to distribution in commerce. The USEPA has specifically excluded oil-filled electrical, operating, or manufacturing equipment from the definition of bulk storage of oil.

b. Oil-filled equipment must be addressed in SPCC Plan. Although they are not considered bulk storage containers, electrical and other operating equipment containing 55 gallons of oil or more must be accounted for and addressed in the SPCC Plan.

c. Oil-filled equipment must meet general requirements for secondary containment. 40 CFR 112 contains numerous secondary containment requirements specifically for bulk oil storage containers. (Appendix B lists applicable requirements of the revised SPCC Rule by 40 CFR sections.) Facilities with equipment containing oil for ancillary purposes are not required to follow these requirements for bulk storage facilities. This would include equipment containing oil for cooling or lubrication such as oil-filled electrical equipment (e.g., transformers), or operating or manufacturing equipment (e.g., transmission gear boxes). However, oil-filled equipment must meet general requirements for secondary containment. Oil-filled electrical and other operating equipment that has a capacity of 55 gal or more and that has a reasonable potential to discharge oil to navigable waters must have some form of containment and/or diversionary structures that would prevent a discharge from reaching the navigable waters.

i. As opposed to bulk storage containers, operational equipment containment does not have to capture all of the stored product plus precipitation (See Figure A1). Rather, appropriate containment for operational equipment must prevent a discharge as described in 40 CFR 112.1(b). (NOTE: the USEPA has stated that it will continue to evaluate whether the general secondary containments found in Section 112.7 should be modified for small electrical and other types of equipment that use oil for operating purposes.)

ii. In practice, a professional engineer (PE) must certify the adequacy of the discharge prevention system (or the system the PE recommends in the SPCC Plan). Although not specifically identified as secondary containment systems in 40 CFR 112.7(c), buildings can be adequate diversionary structures if they exhibit the containment characteristics of dikes, retaining walls, or other barriers. The floors and walls of the structure would have to be sufficiently impervious to contain oil (e.g., free of floor drains, cracks, and porous joints or gaps). Note that the bulk storage secondary containment requirements described in 40 CFR 112.8(c)(2), i.e., impervious secondary containment for the largest single container plus sufficient freeboard to contain precipitation, need not be provided.

Figure A1. Containment structure called The READY BERM ™ to collect spilled or leaked petroleum, oil and lubricant (POL) products from a military wheeled vehicle. (Source: Scott Sagalow, Interstate Products, Inc., http://www.interstateproducts.com/)

iii. When the facility determines that it is not practicable to install necessary secondary containment structures or pieces of equipment, the SPCC Plan must provide a clear explanation of why such measures are not practicable. The Plan must justify the reason for nonconformance, and provide alternate methods of “equivalent environmental protection” (40 CFR 112.7(d)). Costs or economic impacts are not considered justifications for an installation’s nonconformance with the

secondary containment requirement. Some justifiable reasons why secondary containment may be considered not practicable include:

- Space or other geographic limitations of the facility (where an installation can clearly demonstrate that there is “no room” for secondary containment
- Local zoning ordinances, fire prevention standards, or safety considerations (where use of secondary containment structures clearly conflict with zoning, fire, or safety requirements).

d. Some examples of appropriate containment measures for operational equipment include the following methods:

i. Absorbent Material. In the case of indoor hydraulic reservoirs (e.g., elevators, vehicle hoists, dock levelers, machinery, etc.), appropriate containment may be achieved by placing absorbent materials around equipment to prevent spilled oil from reaching a floor drain or other drainage inlet. Absorbent materials are readily available in a variety of shapes and sizes and typically cost under $100 per package.

ii. Concrete Curbing. In the case of outdoor electrical equipment, appropriate containment may be achieved by constructing concrete curbing around the equipment to prevent the lateral migration of oil from reaching a drainage inlet before cleanup occurs. Curbing constructed around common outdoor-pad-mounted transformers typically costs less than $1,000. Such curbing should not be constructed to a height, which, if filled with an accumulation of storm water, might create an electrical safety hazard.

iii. Drainage Inlet Cover. Covers may be placed over drainage inlet structures to prevent spilled oil from entering the drainage system and discharging to the environment (Figure A2). This option requires keeping the drainage inlet covered all of the time, except when properly supervised and inspected consistent with the rule. Drainage inlet covers are most effective when the surrounding surface is conducive to a tight seal and the area is free of debris (e.g., grit, snow, ice, sand, etc.). Drainage inlet covers typically cost less than $100 (Source: New Pig Corporation).

e. Pathway Analysis. In some cases, a pathway analysis should be conducted to evaluate the potential for oil to reach a watercourse. For example, a good candidate for such an analysis might be a facility that does not have any bulk storage containers, but that does have approximately 30 oil-filled

electrical transformers with an aggregate capacity that exceeds the 1320-gal threshold, specially if these transformers are pad-mounted, located outdoors, and have no containment measures. This facility must then consider installing containment measures. Factors to consider in the pathway analysis include container capacity, distance and slope to the target water body, groundcover, soil types, and rainfall. The analysis calculates the probability of a discharge as described in 40 CFR 112.1(b). One commercial tool for this is the Electric Power Research Institute's (EPRI) Mineral Oil Spill Evaluation System- Multi-phase (MOSES-MP) software program (See Appendix D for complete References.) This software provides a method for predicting the likelihood of mineral oil spills from substations or other fluids from aboveground storage tanks reaching groundwater or nearby surface water. MOSES-MP also predicts the quantity of oil that infiltrates the ground beneath electrical equipment and provides soil saturation profiles at user-specified times. The software creates a draft SPCC Plan that automatically incorporates site characteristics and simulation results into an editable text file. The SPCC Plan can be customized to include facility-specific information.

Figure A2. Petroleum, oil and lubricant (POL) control mat placed over a storm water drain inlet in a parking lot. (Source: Presentation USEPA Region IX SPCC Inspection—Lessons Learned, by Reid Maekawa, Navy Region Hawaii, Regional Environmental Department, Code N465.)

4. Fuel tanker truck operations. The USEPA has maintained the secondary containment requirement in the revised July 2002 amendments to 40 CFR 112. Secondary containment is necessary for mobile containers for the same reason that it is necessary for fixed containers: to prevent discharges as described in Section 112.1(b). Secondary containment must also be designed so that there is ample freeboard for anticipated precipitation. The USEPA recommends that the amount of freeboard should be sufficient to contain a 25-year, 24-hour storm event, which generally refers to 5.4 in. (13.7 cm) of rain. The amount of freeboard sufficient to contain precipitation (and avert a discharge) is described in Section 112.1(b).

a. Secondary Containment Requirements (40 CFR 112.8(c)(11)). apply to both mobile and portable oil storage containers with an oil storage capacity of more than 55 gallons. Fuel tanker truck operations must be assessed for the potential impact to navigable waters (includes proximity to storm drainage system) and the frequency of transfer operations (e.g., more than once per month). Mobile and portable containers that are owned and operated by a regulated facility must be included in the calculation of total facility oil storage volume. Containers are considered to be "mobile" if they are mounted to frames with wheels. For example, tanker trucks and portable generator fuel tanks are considered to be mobile containers. Containers attached to skids or frames that may remain in place for an extended period of time are considered to be "portable containers."

b. Appropriate Containment. 40 CFR Part 112.7(c) requires regulated facilities to "provide appropriate containment and/or diversionary structures or equipment to prevent a discharge." The containment system must be capable of capturing oil that may discharge from a primary storage system (i.e., tank or pipe) such that the oil will not escape to the environment before cleanup occurs. Compliance requires the use of dikes, berms, retaining walls, curbing, spill diversion or retention ponds, sorbent materials, or other equivalent measure. Under different sections of the rule, a quick drainage system is required for tank car or tank truck loading/unloading racks (40 CRF 112.7(h)(1)), and secondary containment is required for all bulk storage containers (40 CFR 112.8(c) (2) and 112.8(c)(11)).

i. All mobile and portable containers with an oil storage capacity more than 55 gallons must have some kind of secondary containment. The secondary containment can include spill pallets, diked storage areas, or storage of containers inside a building such that a spill of oil could not reach

navigable waters. However, tanker trucks do not require secondary containment when in use (when they are “on the road,” transporting or delivering oil), but they do require secondary containment when parked overnight. For example, tanker trucks used to fuel aircraft are sometimes driven to a point near a runway, where they sit overnight as they wait for an aircraft to refuel; in this instance, the tanker truck is “delivering” oil. On the other hand, when a tanker truck is parked overnight, essentially idle or “out of service,” it does require secondary containment.

ii. Structural containment involves the construction of a containment area for a tanker truck. Nonstructural containment would be management practices (e.g., cover drain inlet with devices such as a “Drainblocker” prior to transfer operations, as shown in Figure A2).

Appendix B
Revised SPCC Rule Sections and Applicable Requirements

1. Reorganization of the SPCC Rule. In the July 2002 rulemaking, the USEPA divided the rule into subparts. Subpart A consists of an applicability section, definitions and general requirements for all facilities and all types of oils. Subparts B and C outline the requirements for different types of facilities storing and using different types of oils. Subpart B applies to facilities storing or using petroleum oils or other non-petroleum oils (excluding those covered under Subpart C). Subpart C is for facilities storing or using animal fats and oils and greases, or fish and marine mammal oils; and, oils of vegetable origin, including oils from seeds, nuts, fruits, and kernels. Subpart D is for response requirements.

2. In that same rulemaking, the USEPA reorganized the former Section 112.7 of 40 CFR into Sections 112.7 through 112.15 (see Table B1). The table below provides a summary of the revised requirements in the sections that are applicable to military installations. Section 112.7 sets out the general requirements for SPCC Plans for all facilities and all types of oil. Sections 112.8 sets out the SPCC Plan requirements for onshore facilities, excluding production facilities. Sections 112.9 and 112.11 contain the SPCC Plan requirements for onshore and offshore oil drilling and oil production facilities that are generally not applicable to military installation and so are not addressed in this PWTB. Section 112.10 includes SPCC Plan requirements for onshore oil drilling and workover facilities that are generally not applicable to military installations so these also are not addressed in this PWTB.

Table B1. Summary of 40 CFR Sections 112.1 through 112.12.

Sections of 40 CFR 112	**Summary Description**
Subpart A	Applicability, Definitions, and General Requirements for All Facilities and All Types of Oils.
112.1	General applicability statement (including exemption criteria).
112.2	Definitions.

Sections of 40 CFR 112	Summary Description
112.3	Requirements to prepare and implement a Spill Prevention, Control, and Countermeasure (SPCC) Plan (including requirements for SPCC plans for mobile facilities and requirements for professional engineer (PE) review and certification).
112.4	Amendment of the SPCC Plan if required by the USEPA Regional Administrator.
112.5	Requirements to amend SPCC Plan by facility owners or operators (including the requirement for the facility to review its Plan at least every 5 years).
112.6	[Reserved by USEPA.]
112.7	General requirements for SPCC Plans.
112.7(a)	General requirements.
	(1) Discussion of facility's conformance with SPCC Plan requirements.
	(2) Deviations from Plan requirements.
	(3) Facility characteristics that must be described in the Plan:
	i. type of oil in each container with storage capacity;
	ii. discharge prevention measures with procedures for routine handling;
	iii. discharge or drainage controls;
	iv. countermeasures for discharge discovery, response, and cleanup (both the facility’s capability and those that might be required of a contractor);
	v. methods of disposal of recovered materials; and
	vi. contact list for facility response coordinators.
	(4) Spill reporting - information and procedures for incident responses.
	(5) Spill and emergency response procedures.
	i. Quick reference summary information for facility emergency procedures
	ii. Information in supporting appendices.

Sections of 40 CFR 112	Summary Description
112.7(b)	When experience indicates a reasonable potential for equipment failure, the SPCC Plan must include a prediction of the direction, flow rate, and total quantity of oil that could be discharged from the facility as a result of such equipment failure.
112.7(c)	General provisions requiring appropriate secondary containment and/or diversionary structures or equipment to prevent a discharge.
	(1) For onshore facilities, one of the following prevention systems or its equivalent must be used:
	i. dikes, berms or retaining walls sufficiently impervious to contain oil;
	ii. curbing;
	iii. culverting, gutters, or other drainage systems;
	iv. weirs, booms, or other barriers;
	v. spill diversion ponds;
	vi. retention ponds; or
	vii. sorbent materials.
	(2) For offshore facilities, one of the following prevention systems or its equivalent must be used:
	i. curbing or drip pans; or
	ii. sumps and collection systems.
112.7(d)	When a facility determines that oil discharge prevention measures are not practicable, the SPCC Plan must include an oil spill contingency plan and a written commitment of resources (manpower, equipment, and materials required to expeditiously control and remove any quantity of oil discharged that may be harmful). For bulk storage containers, both periodic integrity testing of the containers and periodic integrity and leak testing of the valves and piping must be conducted.
112.7(e)	Inspections, tests, and recordkeeping requirements.
112.7(f)	Oil-handling employee training and annual discharge prevention briefings.
112.7(g)	Facility security.
	(1) Fully fenced facility.
	(2) Master flow and drain valve security.
	(3) Oil pump/transfer control security.

Sections of 40 CFR 112	Summary Description
	(4) Security of loading/unloading connections of oil pipelines or facility piping.
	(5) Facility lighting to assist in discovery of any discharges and prevent vandalism and theft.
112.7(h)	Tank car/truck loading/unloading procedures (excluding offshore facilities).
	(1) Catchment basin, treatment facility, or quick discharge system.
	(2) Means to prevent truck driveaways, before complete disconnection of flexible or fixed oil transfer lines.
	(3) Inspection of tanker truck drains/outlets prior to filling operations and vehicle departure.
112.7(i)	Brittle fracture evaluation requirements for field-constructed aboveground containers undergoing repair, alteration reconstruction, or change in service.
112.7(j)	SPCC Plan must include how it conforms to state and local oil discharge prevention and containment requirements.
Subpart B	Requirements for petroleum oils and non-petroleum oils, except animal fats and oils and greases, and fish and marine mammal oils; and vegetable oils (including oils from seeds, nuts, fruits, and kernels).
112.8	SPCC Plan requirements for onshore facilities (excluding production facilities).
112.8(a)	Meet the general requirements for the Plan listed under 112.7, and the specific discharge prevention and containment procedures listed in this section.
112.8(b)	Facility drainage restrictions:
	(1) Restrain drainage from diked storage areas by valves.
	(2) Use valves of manual, open-and-closed design for drainage of diked areas. Inspections are required when drainage drains directly into a watercourse to prevent oil discharge.
	(3) Design requirements for drainage systems of undiked areas with a potential for oil discharge.
	(4) Diversion systems use and design.
	(5) Lift pump requirements for drainage water treatment.
112.8(c)	Bulk storage containers.

Sections of 40 CFR 112	Summary Description
	(1) Container material and construction must be compatible with contents.
	(2) Secondary containment must be provided for the capacity of the largest single container and sufficient freeboard to contain precipitation. Commonly employed dikes, containment curbs, and pits must be impervious to contain discharged oil.
	(3) Requirements for stormwater drainage from diked areas and recordkeeping requirements for stormwater bypass events.
	(4) UST corrosion protection and regular leak testing.
	(5) Corrosion protection of partially buried or bunkered tanks.
	(6) Integrity testing and recordkeeping requirements of aboveground containers.
	(7) Monitor internal tank heating coils to control leakage.
	(8) Engineering controls must be used to prevent discharges.
	(9) Observe effluent treatment facilities frequently enough to detect any system upsets that could cause a discharge.
	(10) Visible discharges from equipment must be promptly repaired.
	(11) Mobile containers must be positioned or located to prevent discharges. Mobile containers must be provided with secondary containment sufficient to contain the capacity of the largest single container with sufficient freeboard to contain precipitation.
112.8(d)	Facility transfer operations, pumping, and facility process.
	(1) Corrosion protection of underground piping is required.
	(2) Cap or blank-flange the terminal connection of transfer piping. Mark it as to origin when piping is not in service or is in standby service for an extended time.
	(3) Properly design transfer pipe supports to minimize abrasion and corrosion and allow for expansion and contraction.

Sections of 40 CFR 112	Summary Description
	(4) Regularly inspect aboveground valves, pipes, and appurtenances. Conduct integrity and leak testing of buried piping at the time of installation, modification, construction, relocation, or replacement.
	(5) Warning procedures must be provided to prevent vehicular damage to aboveground piping (see Figure B1).
Subpart C	Requirements for animal fats and oils and greases, and fish and marine mammal oils; and for vegetable oils, including oils from seeds, nuts, fruits and kernels.
112.12	SPCC Plan requirements for onshore facilities (excluding production facilities).

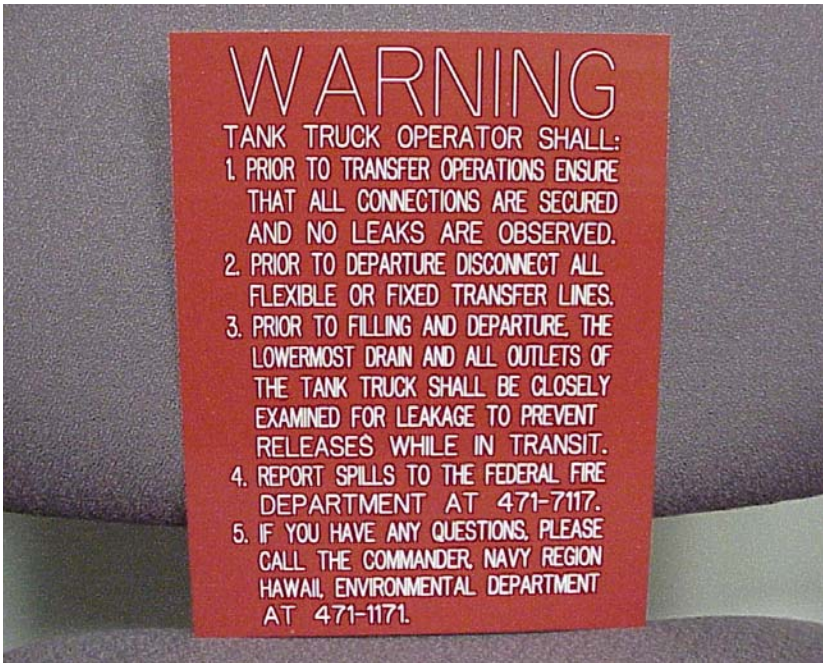


Figure B1. Example of signage containing warning procedures to prevent vehicular damage to aboveground piping during fuel tanker truck operations. (Source: Presentation USEPA Region IX SPCC Inspection - Lessons Learned, by Reid Maekawa, Navy Region Hawaii, Regional Environmental Department, Code N465.

Appendix C
Definitions

1. Bulk Storage Container - any container used to store oil. These containers are used for purposes including, but not limited to, the storage of oil prior to use, while being used, or prior to further distribution in commerce. Oil-filled electrical, operating, or manufacturing equipment is not a bulk storage container (40 CFR 112.2).

2. Completely Buried Tank - any container completely below grade and covered with earth, sand, gravel, asphalt, or other material. Containers in vaults, bunkered tanks, or partially buried tanks are considered aboveground storage containers for purposes of this part (40 CFR 112.2).

3. Discharge - includes, but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying, or dumping of oil, but excludes discharges in compliance with a permit under section 402 of the CWA; discharges resulting from circumstances identified, reviewed, and made a part of the public record with respect to a permit issued or modified under section 402 of the CWA, and subject to a condition in such permit; or continuous or anticipated intermittent discharges from a point source, identified in a permit or permit application under section 402 of the CWA, that are caused by events occurring within the scope of relevant operating or treatment systems. For purposes of 40 CFR 112, the term “discharge” does not include any discharge of oil that is authorized by a permit issued under section 13 of the River and Harbor Act of 1899 (33 U.S.C. 407) (40 CFR 112.2).

4. Facility - any mobile or fixed, onshore or offshore building, structure, installation, equipment, pipe, or pipeline (other than a vessel or a public vessel) used in oil well drilling operations, oil production, oil refining, oil storage, oil gathering, oil processing, oil transfer, oil distribution, and waste treatment, or in which oil is used, as described in Appendix A to 40 CFR 112. The boundaries of a facility depend on several site-specific factors, including, but not limited to, the ownership or operation of buildings, structures, and equipment on the same site and the types of activity at the site (40 CFR 112.2).

5. Navigable Waters - the waters of the United States, including the territorial seas (40 CFR 112.2). The term includes:

a. all waters that are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters subject to the ebb and flow of the tide;

b. all interstate waters, including interstate wetlands;

c. all other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sand flats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation, or destruction of which could affect interstate or foreign commerce including any such waters:

i. that are or could be used by interstate or foreign travelers for recreational or other purposes; or

ii. from which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or,

iii. that are or could be used for industrial purposes by industries in interstate commerce;

d. all impoundments of waters otherwise defined as waters of the United States under this section;

e. tributaries of waters identified in paragraphs (1)(i) through (iv) of this definition;

f. the territorial sea; and

g. wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraph 1 of this definition.

6. Waste Treatment Systems, including treatment ponds or lagoons designed to meet the requirements of the CWA (other than cooling ponds which also meet the criteria of this definition) are not waters of the United States. Navigable waters do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other Federal agency, for the purposes of the CWA, the final authority regarding CWA jurisdiction remains with the USEPA.

7. Offshore Facility - any facility of any kind (other than a vessel or public vessel) located in, on, or under any of the navigable waters of the United States, and any facility of any

kind that is subject to the jurisdiction of the United States and is located in, on, or under any other waters (40 CFR 112.2).

8. Oil - oil of any kind or in any form, including, but not limited to: fats, oils, or greases of animal, fish, or marine mammal origin; vegetable oils, including oils from seeds, nuts, fruits, or kernels; and, other oils and greases, including petroleum, fuel oil, sludge, synthetic oils, mineral oils, oil refuse, or oil mixed with wastes other than dredged spoil (40 CFR 112.2).

9. Onshore Facility - any facility of any kind located in, on, or under any land within the United States, other than submerged lands(40 CFR 112.2).

10. Partially Buried Tank - a storage container that is partially inserted or constructed in the ground, but not entirely below grade, and not completely covered with earth, sand, gravel, asphalt, or other material. A partially buried tank is considered an aboveground storage container for purposes of 40 CFR 112 (40 CFR 112.2).

11. Permanently Closed - any container or facility for which: (1) all liquid and sludge has been removed from each container and connecting line; and (2) all connecting lines and piping have been disconnected from the container and blanked off, all valves (except for ventilation valves) have been closed and locked, and conspicuous signs have been posted on each container stating that it is a permanently closed container and noting the date of closure (40 CFR 112.2).

12. Petroleum Oil - petroleum in any form, including, but not limited to crude oil, fuel oil, mineral oil, sludge, oil refuse, and refined products (40 CFR 112.2).

13. Transportation-Related and Non-Transportation-Related - as applied to an onshore or offshore facility, are defined in the Memorandum of Understanding between the Secretary of Transportation and the Administrator of the Environmental Protection Agency, dated 24 November 1971 (Appendix A of 40 CFR 112) (40 CFR 112.2).

14. Non-Transportation-Related Facilities - refer to all fixed facilities, including support equipment, but excluding certain pipelines, railroad tank cars en route, transport trucks en route, and equipment associated with the transfer of bulk oil to or from water transportation vessels. The term also includes mobile or portable facilities, such as drilling or workover

rigs, production facilities, and portable fueling facilities while in a fixed, operating mode (the USEPA's Oil Pollution Prevention Regulation Frequently Asked Questions (FAQs) web site), available through URL:

http://www.epa.gov/oilspill/opprfaqs.htm

Appendix D
References and Recommended Web sites

References

Department of Defense Clean Water Act Service Steering Committee (CWASSC), Joint Services Spill Prevention, Control and Countermeasure Frequently Asked Questions (April 2004).

Department of Defense Clean Water Act Service Steering Committee (CWASSC), Joint Services Spill Rule Change Summary (April 2004).

Department of Defense Clean Water Act Service Steering Committee (CWASSC), Joint Services Spill Prevention, Control and Countermeasure Gap Analysis Tool (April 2004).

Department of Defense Clean Water Act Service Steering Committee (CWASSC), Joint Services Spill Prevention, Control and Countermeasure Plan Template (April 2004).

USEPA, SPCC Requirements and Pollution Prevention Practices for Electrical Utilities (February 1998).

FAA Spill Prevention, Control and Countermeasures (SPCC) Plan Guidance, Federal Aviation Administration, Office of Environmental and Energy, Environment, Energy and Employee Safety Division, AEE-200 (March 2004).

Federal Register, 40 CFR Part 112, Oil Pollution Prevention and Response: Non-Transportation-Related Onshore and Offshore Facilities; Final Rule, Vol. 67, No. 137 (17 July 2002).

Frye, William S., “Oil Spill Prevention Measures: Tackling the Tough SPCC Issues,” Fifth Biennial Freshwater Spills Symposium (New Orleans, LA, April 2004).

Naval Facilities Engineering Service Center, Spill Prevention Control and Countermeasure (SPCC), A Guide to the SPCC Regulation (October 2003).

Title 40 of the Code of Federal Regulations (CFR), Part 112, Oil Pollution Prevention.

Recommended Web Sites for SPCC Guidance

In April 2004, DoD’s Clean Water Act Services Steering Committee (CWASSC) made available a series of documents to assist military installations in implementing the 17 July 2002 revisions to 40 CFR 112, the Spill Prevention, Control and Countermeasure (SPCC) rule. Those documents and their web links are listed below.

Electric Power Research Institute's (EPRI) Mineral Oil Spill Evaluation System—Multiphase (MOSES-MP) software program is available through URL:

http://www.epri.com/D2004/dilbert.aspx?id=69&prodtype=7&type=&sector=4&area=18&year=2004

The Gap Analysis Tool is available through URL:

https://www.denix.osd.mil/denix/DOD/Library/Water/CWA/SubjectAreas/SPCC/GapAnalysisSPCCGuidance20040402.xls

Joint Services Industry Standards Operational Checklists. This document helps installation personnel identify the inspection and testing requirements from industry standards applicable to SPCC-regulated containers. The Industry Standards Operational Checklist document is available through URL:

https://www.denix.osd.mil/denix/DOD/Library/Water/CWA/SubjectAreas/SPCC/OperationalChecklists20040402.pdf

Appendix B is a Microsoft Excel worksheet and is available through URL:

https://www.denix.osd.mil/denix/DOD/Library/Water/CWA/SubjectAreas/SPCC/OperationalSpreadsheet20040402.xls

Joint Services SPCC FAQs. The Frequently Asked Questions document covers topics such as navigable waters, loading racks, and impracticability; it is available through URL:

https://www.denix.osd.mil/denix/DOD/Library/Water/CWA/SubjectAreas/SPCC/faqs20040402.pdf

Joint Services SPCC Gap Analysis Tool. The questions in this spreadsheet step through the regulatory requirements and help installations identify the required modifications to their existing Plan. The SPCC Gap Analysis Narrative is available through URL:

https://www.denix.osd.mil/denix/DOD/Library/Water/CWA/SubjectAreas/SPCC/GapAnalysisSPCCGuidance20040402.xls

Joint Services SPCC Plan Template. This document incorporates all the CWASSC guidance and uses generic language and a fill-in-the-blank approach that installations can customize. The template includes modules for specific types of containers such as used oil tanks, large POL yard tanks, transformers, oil/water separators, and engine test cells, available through URL is available through URL:

https://www.denix.osd.mil/denix/DOD/Library/Water/CWA/SubjectAreas/SPCC/PlanTemplate20040419.doc

Joint Services SPCC Rule Change Summary. This document discusses the highest priority changes and includes a table of all the changes to the Regulation with implementation guidance; it is available through URL:

https://www.denix.osd.mil/denix/DOD/Library/Water/CWA/SubjectAreas/SPCC/RuleChangeSummary20040402.pdf

Naval Facilities Spill Prevention Control and Countermeasure (SPCC), A Guide to the SPCC Regulation is available through URL:

http://enviro.nfesc.navy.mil/ps/spcc/

The USEPA Oil Program web site is available through URL:

http://www.epa.gov/oilspill/spcc.htm

USEPA's Spill Prevention, Control and Countermeasure Guides is available through URL:

http://www.epa.gov/oilspill/spccguid.htm

USEPA's Useful SPCC Reference Material web site is available through URL:

http://www.epa.gov/oilspill/spccref.htm

Sample SPCC Plans and Plan Templates

FAA Spill Prevention, Control and Countermeasures (SPCC) Plan Guidance is available through URL:

http://www.aee.faa.gov/aee-200/spill-04.pdf