

Spill Prevention, Control, and Countermeasures

What's Your Plan?

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- Why and When SPCC
- SPCC Terms
- SPCC Plans
- Other Considerations

But First . . . a Pre-Quiz!

- Which of the following are considered **Oil** for SPCC purposes?
 - a. Fats, oils, or greases of animal origin
 - b. Oils derived from plants and other vegetable matter
 - c. Oils and greases (including fuel) from petroleum or other sources (besides a. and b.)
 - d. Used oil
 - e. Waste oil

- Which one of the following complete facility scenarios requires the facility owner/operator to prepare and implement an SPCC Plan?
 - a. 50 unopened 30-gallon drums of hydraulic fluid
 - b. A usable, empty 1,500-gallon diesel storage tank
 - c. A full 1,300-gallon diesel storage tank
 - d. 5 self-propelled material handlers each with a 100-gallon diesel tank and a 200-gallon capacity for hydraulic fluid

- If you need to prepare and implement an SPCC Plan, which one of the following must you do?
 - a. Leave a copy of your SPCC Plan in all public libraries within 5 miles.
 - b. Post your SPCC Plan on your website.
 - c. Have a copy of your SPCC Plan available on-site for review by the EPA Regional Administrator.
 - d. Send a copy of your SPCC Plan to the EPA Regional Administrator.

- If your facility does not need to have an SPC Plan, are you done with requirements regarding spill prevention?
 - a. Yes
 - b. No

- Clean Water Act says so!
 - Oil Pollution Act of 1990
 - Implementing regulations at 40 CFR §112
- “To prevent the discharge of oil from . . . facilities into or upon the navigable waters of the United States or adjoining shorelines, or . . . ”.
- “Except as provided . . . , this part applies to any owner or operator of a . . . facility engaged in . . . storing, . . . using, or consuming oil and oil products, which due to its location, could reasonably be expected to discharge oil in quantities that may be harmful . . . into or upon the navigable waters of the United States or adjoining shorelines, or . . .”.
 - “[A Not Reasonably Expected] determination must be based solely upon consideration of the geographical and location aspects of the facility (such as proximity to navigable waters or adjoining shorelines, land contour, drainage, etc.) . . .”.

When is an SPCC Plan Required?

SPCC Plan Applicability Matrix		Aboveground Oil Storage Capacity in <u>Eligible Containers</u>	
		(gallons)	≤1,320
<u>Completely Buried Oil Storage Capacity in Eligible Containers</u>	≤42,000	Not Required	Required
	>42,000	Required	Required

- When a facility could, because of its location, reasonably be expected to cause **substantial harm** to the environment by discharging oil into or on the navigable waters or adjoining shorelines . . . if it meets any of the following criteria
 - **Oil storage capacity \geq 42,000 gallons** for transfers of oil over water to or from vessels, or
 - **Oil storage capacity \geq 1 million gallons** and one of the following
 - Insufficient secondary containment
 - Close to fish, wildlife, or sensitive areas
 - Potential shutdown of public drinking water intake
 - Reportable discharge \geq 10,000 gallons within last 5 years

- *Oil* means 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.**

- Bulk storage container
- Bunkered tank
- Completely buried tank
- Mobile refueler
 - Examples: Fuel tank on vehicle or trailer for fueling other equipment
- Motive-power container (as part of self-propelled vehicles)
 - Fuel tank
 - Oil-filled operational equipment
- Oil-filled operational equipment (enabled by oil)
 - Examples: Hydraulic systems, transformers, circuit breakers
- Partially buried tank

What is NOT an Eligible Aboveground Container?



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- Container <55 gallons in capacity
- Motive-power container
 - Example: Fuel tank and hydraulic reservoir of self-propelled material handler
 - **Not** Example: Mobile diesel refueling tank on truck or trailer
- “Permanently closed” container
- Milk or milk product container

What is NOT an Eligible Buried Container?



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- Vaulted tank (considered aboveground)
- Bunkered tank (“
- Partially buried tank (“
- “Permanently closed” tank
- Totally buried tanks meeting UST regulations

- Facility diagram
- Description of the facility
- Oil discharge predictions
- Appropriate secondary containment or diversionary structures
- Facility drainage

- Site security
- Facility inspections
- Requirements for bulk storage containers including inspections, overfill, and integrity testing requirements
- Transfer procedures and equipment (including piping)

- Requirements for qualified oil-filled operational equipment
- Loading/unloading rack requirements and procedures for tank cars and tank trucks
- Brittle fracture evaluations for aboveground field constructed containers

- Personnel training and oil discharge prevention briefings
- Recordkeeping requirements
- Five-year plan review
- Management approval
- Plan certification by a PE (some exceptions)

- With some exceptions, “ a licensed Professional Engineer must review and certify a Plan for it to be effective to satisfy the requirements of this part.”
- PE certification means that . . .
 - PE is familiar with requirements.
 - PE (or agent) has visited and examined the facility.
 - SPCC Plan satisfies good engineering practice.
 - Procedures for required testing and inspections have been established.
 - SPCC Plan is adequate for facility.
- Complete SPCC Plan must be
 - maintained on-site, and
 - available on-site for review by the EPA Regional Administrator.

SPCC Plans for “Qualified Facilities”

- Self-Certified SPCC Plans available for Tier I and Tier II Qualified Facilities

Attribute	Tier I	Tier II
Total Aboveground Storage Capacity	≤10,000 gallons	
Largest Container	≤5,000 gallons	>5,000 gallons
History of Spills <u>into</u> Waters of the US during Prior 3 Years	No >1,000-gallon spill and no two >42-gallon spills within 12-month period	
Self-Certified Plan (PE may certify if state requires it) in lieu of a full PE-certified Plan.	Complete Plan template (Appendix G, 40 CFR §112)	Prepare self-certified Plan per all applicable requirements of §112.7 and subparts B and C

Tier I Plan Template Elements

Appendix G, 40 CFR §112



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- Self-Certification Statement
- Five-Year Review
- Oil Storage Containers List
- Secondary Containment and Oil Spill Control
 - dikes, berms, retaining walls, ponds, sorbents etc.
- Inspections, Testing, Recordkeeping and Personnel Training
- Security
- Contact List
 - NRC, Cleanup Contractors, Key Personnel, F/S/L Agencies, etc.
- NRC Notification Procedure
- SPCC Spill Reporting Requirements
- Other General Requirements

- Five Year Review Log
- Technical Amendment Log
- Oil Spill Contingency Plan and Checklist
 - Qualified oil-filled operational equipment which has no secondary containment.
- Inspections Log
- Bulk Storage Container Inspection Schedule
- Dike Drainage Log
- Oil-handling Personnel Training and Briefing Log
- Discharge Notification Form

- If your facility does not need to implement an SPCC Plan, are you done with requirements regarding spill prevention?
 - NO!
 - Stormwater permits
 - Emergency reporting

What are you going to do when . . .



this leak (←)
starts heading
for that (↓)
unprotected
storm drain?!



- Preventive Maintenance

- Regularly inspect equipment, machinery, hoses and containers
- Look for signs of wear or leakage
- Repair leaks, parts before they wear out
- Contain all leaks
- Follow recommended procedures

- “You must minimize the potential for leaks, spills and other releases that may be exposed to stormwater and develop plans for effective response to such spills if or when they occur in order to minimize pollutant discharges.” (2015 Federal MSGP)
 - Plainly label containers (e.g., oil, solvent)
 - Implement procedures for material storage and handling (e.g., secondary containment, barriers)
 - Procedures and training to stop, contain, and clean up leaks, spills, and other releases
 - Spill kits and equipment (strategically located)
 - Notification of designated personnel if release occurs

(Stormwater permits generally allow use of or reference to SPCC Plans.)

Stormwater Spill Prevention and Response Procedures



Discharge of Oil (“Sheen Rule”)

- Clean Water Act provision
 - Implementing regulations at 40 CFR §110
- Discharges of oil considered harmful to the public health or welfare or the environment include discharges of oil that:
 - Violate applicable water quality standards, or
 - Cause a film or sheen upon or discoloration of the surface of the water or adjoining shorelines or cause a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines.
- Person in charge of facility shall immediately notify the National Response Center (NRC) at 800-424-8802 (202-426-2675) upon knowledge of any reportable discharge of oil from facility
- Exemption: Discharges in compliance with a stormwater or other permit

- SPCC is Federal.
- States may have their own requirements for bulk oil storage tanks.
 - Example: New York State
 - Petroleum Bulk Storage (PBS) Program
 - **The PBS program applies to facilities that store more than 1,100 gallons of petroleum in aboveground and underground storage tanks. Facilities with one or more underground storage tanks larger than 110 gallons must also be registered.** All tanks (with some exceptions) for the storage of petroleum at facilities must be registered with the DEC and managed in compliance with applicable regulations for the storage and handling of petroleum.
 - <http://www.dec.ny.gov/chemical/287.html>

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a. Yes

b. No

- U.S. EPA
 - <https://www.epa.gov/oil-spills-prevention-and-preparedness-regulations/spcc-guidance-regional-inspectors#Guidance>
 - Sample SPCC Plans and Templates
- On-line Code of Federal Regulations
 - <http://www.ecfr.gov>
- ISRI



Thank you!

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