Federal Spill Prevention, Control, and Countermeasures (SPCC) Plan Primer

July 2, 2007

The Environmental Protection Agency’s (EPA’s) SPCC Rule (40 C.F.R. Part 112) requires owners and operators of facilities that store or use oil (in excess of set storage capacity thresholds) to prepare an oil spill prevention and response plan, if there is a reasonable expectation oil might be discharged in harmful quantities onto the navigable waters of the United States or adjoining shore lines. Specifically, 40 C.F.R. § 112.3 requires the owner or operator of an onshore or offshore facility to prepare a Spill Prevention, Control, and Countermeasure Plan (hereafter “SPCC Plan” or “Plan”), in writing. SPCC plans were to have been revised by October 31, 2007, but this May EPA extended the deadline to July 1, 2009.1

A good summary of the program by the U.S. Environmental Protection Agency (EPA) may be found at http://www.epa.gov/oilspill/spcc.htm. As EPA notes:

The main thrust of the SPCC regulation is “prevention” of a discharge as opposed to “after-the-fact” (or “reactive”) cleanup measures commonly described in discharge contingency plans. The regulation applies to any onshore or offshore facility engaged in drilling, producing, gathering, storing, processing, refining, transferring, distributing, using, or consuming oil and oil products, providing that all three of the following conditions are met:

1. The facility is non-transportation-related;

2. The aggregate aboveground storage capacity is greater than 1,320 gallons, with a de minimis container capacity of 55 gallons, or the total underground storage capacity is greater than 42,000 gallons; and

3. Due to its location, oil discharged at the facility could reasonably be expected to reach waters of the United States or adjoining shorelines.2

I. Applicability

The SPCC regulations apply to oil storage facilities whose proximity to streams, rivers, or other navigable waters of the United States could be expected, in the event of a spill, to discharge harmful quantities of oil into those waters. The SPCC regulations are intended to address solely the prevention of oil spills and the associated contamination of surface waters. The regulations do not address the threat of contamination to soil or groundwater, or violations of the plant’s wastewater discharge permits. Under 40 C.F.R. § 110.3, a harmful quantity of oil is defined as a discharge that violates applicable water quality standards, or causes a film, sheen, or discoloration of the surface water or nearby shoreline.

Section 112.2 defines oil broadly as “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,

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including oils from seeds, nuts, fruits, or kernels; and, other oils and greases, including petroleum, fuel oil, sludge, synthetic oils, mineral oils, oil refuse, and oil mixed with wastes other than dredged spoil.” Hazardous substances are generally not within the scope of the SPCC program, unless mixed in, or a constituent of oil.

In determining whether a facility is subject to the SPCC requirements, it is the facility’s total storage capacity, which governs, not the actual quantities of oil stored. Thus, the SPCC requirements apply to facilities with: (1) an aboveground oil storage capacity of more than 1,320 gallons; or (2) a total underground buried storage capacity of more than 42,000 gallons.

Under Section 112.1(d)(1)(i), a facility may be excluded from the SPCC requirements, if due to its location, it could not reasonably be expected to discharge oil into navigable waters. A facility’s geographic location, such as its proximity to water or a shoreline, land contours, and drainage, is the sole factor in making this determination. Man-made features such as sewer pipes that facilitate rather than inhibit drainage to a navigable waterway are highly relevant to the inquiry and should be considered when determining that it is reasonably foreseeable for an oil discharge to reach navigable waters. Manmade features such as dikes, equipment, or other structures that may restrain or prevent an oil discharge from reaching navigable waters cannot be considered. Generally speaking, it is very difficult for a facility meeting the threshold quantities to demonstrate that in the event of an oil spill, it is not reasonably foreseeable that the oil will reach navigable waters. We urge that facilities not try to “rationalize” that a release could not reach surface waters. The location of oil storage tanks inside a building is insufficient to exclude a facility from the SPCC program.

II. Requirements

Facilities that are subject to the SPCC requirements must prepare and implement a site-specific SPCC plan that details the facility’s compliance with the requirements of 40 C.F.R. Part 112. The SPCC Plan should be prepared in accordance with good engineering practices and be approved by a person with the authority to commit the resources necessary to implement the SPCC Plan. Generally, the requirements are intended to clearly address the following three areas:

- Operating procedures that prevent oil spills;
- Control measures installed to prevent a spill from reaching navigable waters; and
- Countermeasures to contain, clean up, and mitigate the effects of an oil spill that reaches navigable waters.

The standard elements of a Plan to ensure compliance with the regulations include:

- A description of the physical layout and a facility diagram. 40 C.F.R. §112.7(a)(3).

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• A trajectory analysis that includes a prediction of the direction, rate of flow, and total quantity of oil that could be discharged where experience indicates a potential for equipment failure. 40 C.F.R. § 112.7(b).

• A description of containment and/or diversionary structures or equipment to prevent discharged oil from reaching navigable waters. (For on-shore facilities, one of the following must be used at a minimum: dikes, berms, or retaining walls; curbing; culverting, gutters, or other drainage systems; weirs, booms, or other barriers; spill diversion ponds; retention ponds; sorbent materials.) 40 C.F.R. § 112.7(c).

• Contingency planning, including a complete discussion of the spill prevention and control measures applicable to the facility and/or its operations and a contact list and phone numbers for the facility response coordinator, National Response Center, cleanup contractors, and all appropriate federal, state, and local agencies who must be contacted in case of a discharge. 40 C.F.R. § 112.7(a)(3)(vi).

• Where appropriate, a demonstration that containment and/or diversionary structures or equipment are not practical; periodic integrity and leak testing of bulk containers and associated valves and piping; oil spill contingency plan; and a written commitment of manpower, equipment, and materials to quickly control and remove spilled oil. 40 C.F.R. § 112.7(d).

• Personnel Training and Discharge Prevention Procedures. 40 C.F.R. § 112.7(f).

• Security (excluding production facilities). 40 C.F.R. § 112.7(g).

• Facility Tank Car and Tank Truck Loading/Unloading Racks (excluding offshore facilities). 40 C.F.R. § 112.7(h).

• Field-constructed Aboveground Containers - Brittle Fracture Evaluation. 40 C.F.R. § 112.7(i).

• Onshore Facility Drainage (excluding production facilities). 40 C.F.R. § 112.8(b).

• Facility Transfer Operations, Pumping, and Facility Process (excluding production facilities). 40 C.F.R. § 112.8(d).

• Onshore Bulk Storage Containers (excluding production facilities). 40 C.F.R. § 112.8(e).

A. Further Discussion of Secondary Containment

Under 40 C.F.R. § 112.7(c), a facility that exceeds any one of the SPCC capacity thresholds must provide, at a minimum, containment or diversion systems to prevent discharged oil from reaching navigable waters. A system of dikes, curbing, culverts, spill retention or diversion ponds, or sorbent materials can be used. Upon inspection, EPA will assess the adequacy of the selected system on a case-by-case basis, evaluating the system’s compliance with good engineering practices and its ability to retain a spill.
Generally, all areas of a facility with potential to discharge oil are, at a minimum, subject to the general secondary containment requirements at 40 C.F.R. § 112.7(c). Areas in which certain types containers or equipment are located, or certain activities are conducted, however, may be subject to additional, more stringent containment requirements:

- Bulk storage containers;
- Loading/unloading racks;
- Mobile or portable bulk storage containers; and
- Production facility bulk storage containers, including tank batteries, separation, and treating vessels/equipment.

Regardless of the containment system chosen, these areas must have sufficient containment or diversion capacity for the entire content of its single largest oil or fuel storage compartment or container plus sufficient “freeboard” to allow for precipitation or minor spills during normal or abnormal operations.\(^4\)

Specific requirements may also apply to the containment method used. For example, drainage from contained or “diked” areas must have manually operated valves or other means to prevent a spill or excessive leakage into the facility drainage or effluent treatment systems. Undiked areas, such as loading, washdown, and garage bays, typically use drainage control measures, instead of secondary containment to contain or reroute a spill.\(^5\) Drainage control measures can be a combination of curbing, trenches, catch-basins, and ponds.

**B. Alternative Systems Option**

SPCC system regulations are performance-based, thus alternate spill containment or diversion systems may be used so long as they are as effective as the minimum containment or diversion systems listed at 40 C.F.R. § 112.7(c). For example, facilities that use certain shop-fabricated aboveground storage tanks are presumed to achieve not only the protection of navigable waters substantially equivalent to that provided by secondary containment measures prescribed by 40 C.F.R. § 112.7(c), but also bulk storage secondary containment requirements found at §112.8(c)(2).\(^6\) The tanks in question include the following features:

the inner tank is an Underwriters’ Laboratory-listed steel tank, the outer wall is constructed in accordance with nationally accepted industry standards (e.g., those codified by the American Petroleum Institute, the Steel Tank Institute, and the American Concrete Institute), the tank has overfill prevention measures that

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\(^4\) The term “freeboard” is used to refer to the vertical distance between the top of a tank or surface impoundment dike and the surface of the oil contained therein. According to EPA, determining the proper freeboard for secondary containment is a matter of good engineering practice. Accordingly, the Agency does not prescribe any particular method. However, where data is available, facilities should consider providing sufficient freeboard for a 25-year, 24-hour storm event. 67 Fed. Reg. 47,101.


\(^6\) Memorandum from Marianne Lamont Horinko, Assistant Administrator, to Oil National Policy Managers, Regions 1-10 OSWER 9360.8-38.
include an overfill alarm and an automatic flow restrictor or flow-shutoff, and all product transfers are constantly monitored.\textsuperscript{7}

This specific option was initially limited to tanks with a capacity greater than 12,000 gallons, but has been expanded to apply to all shop-fabricated double-walled aboveground storage tanks. While these tanks may satisfy the requirements of §112.7(c) and §112.8(c)(2), they must also continue to satisfy all other applicable SPCC requirements. For example, any piping, equipment, or devices not contained within a double-wall AST is subject to the facility drainage requirements of §112.8(b)(3) and (4), if such piping, equipment, or device is in an undiked area.

III. Plan Certification

Subsection (d) requires that, except as provided in §112.6, a licensed Professional Engineer must review and certify a Plan for it to be effective to satisfy the requirements of this part. However, under subsection (g), the owner or operator of a qualified facility as defined in this subparagraph may self-certify his or her facility’s Plan, as provided in §112.6. A qualified facility is one that:

(1) Has an aggregate aboveground storage capacity of 10,000 gallons or less; and
(2) Has had no single discharge as described in §112.1(b) exceeding 1,000 U.S. gallons or no two discharges as described in §112.1(b) each exceeding 42 U.S. gallons within any twelve month period in the three years prior to the SPCC Plan self-certification date, or since becoming subject to this part if the facility has been in operation for less than three years (other than discharges as described in §112.1(b) that are the result of natural disasters, acts of war, or terrorism).

IV. Deadline for Submission and Availability of Plan

As previously indicated, EPA recently extended the deadline for updating or finalizing SPCC plans. The deadline varies depending on the type of facility and the date it started operations. According to § 112.3(a)(1), if your onshore or offshore facility was in operation on or before August 16, 2002, you must maintain your Plan, but must amend it, if necessary to ensure compliance with the 2006 revisions to the SPCC regulations by July 1, 2009, and implement the Plan no later than July 1, 2009.\textsuperscript{8} If your onshore or offshore facility becomes operational after August 16, 2002, through July 1, 2009, and could reasonably be expected to have a discharge as described in §112.1(b), you must prepare and implement a Plan on or before July 1, 2009.

\textsuperscript{7} Id. at 2 (citing Memorandum from Don R. Clay, Assistant Administrator, to Director, Environmental Services Division, Regions I, VI, VII (Apr. 29, 1992)).

\textsuperscript{8} Oil Pollution Prevention; Spill Prevention, Control, and Countermeasure Plan Requirements—Amendments, 71 Fed. Reg. 77,266 (December 26, 2006). The 2006 Federal Register addresses a number of issues raised by 2002 amendments to the SPCC regulations, including streamlining requirements for facilities with smaller oil storage capacities. EPA also deleted provisions that were not appropriate for facilities with animal fats and vegetable oils.
## Key Dates for SPCC Rule Compliance

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<th><strong>A facility (other than a farm) starting operation...</strong></th>
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<tr>
<td>On or before August 16, 2002</td>
<td>Maintain its existing Plan. Amend and implement the Plan no later than July 1, 2009.</td>
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<tr>
<td>After August 16, 2002 through July 1, 2009</td>
<td>Prepare and implement a Plan no later than July 1, 2009</td>
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<td>After July 1, 2009</td>
<td>Prepare and implement a Plan before beginning operations</td>
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<th><strong>A Farm starting operation...</strong></th>
<th><strong>Must...</strong></th>
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<td>On or before August 16, 2002</td>
<td>Maintain its existing Plan. Amend and implement the Plan when EPA promulgates a rule specific for farms and specifies a compliance date for farms.</td>
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Generally, owner/operators of a facility for which a Plan is required under this section must:

1. Maintain a complete copy of the Plan at the facility if the facility is normally attended at least four hours per day, or at the nearest field office if the facility is not so attended, and
2. Have the Plan available to the Regional Administrator for on-site review during normal working hours.

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Please do not hesitate to contact us with any questions or comments on this information.