Spill plans made simple:
avoiding noncompliance and common findings

Jennifer Van Thomme | Midwest Environmental Compliance Conference
November 1, 2016

Background: where did the idea come from?

Today's Focus

- Why should you care about Spill Prevention, Control, and Countermeasure Plan compliance?
- What's new in the world of Spill Plans?
- Professional Engineer certification: when do you really need it?
- Anatomy of an audit, where do auditors look first?
- Facility Diagram criteria that often goes overlooked
- Important definitions
- What constitutes "oil-like"?
- Keep it simple… so you don't get caught out of compliance
- Other miscellaneous findings and best practices

Why should you care about Spill Prevention, Control, and Countermeasure Plan compliance?

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Step 1.a: Apply matrix. Determine an initial figure from the following table. Within each range, the Agency litigation team should exercise discretion, considering storage capacity and extent of noncompliance only, since other considerations are incorporated in later steps.

Extent of Noncompliance	**Storage Capacity of the Facility in gallons**			
	Less than 42,000	42,001 to 200,000	200,001 to 1 million	More than 1 million*
Minor Noncompliance:	$500 to $3,000	$2,000 to $6,000	$5,000 to $12,000	$8,000 to $20,000
Moderate Noncompliance:	$3,000 to $8,000	$6,000 to $15,000	$12,000 to $25,000	$20,000 to $50,000
Major Noncompliance:	$8,000 to $20,000	$15,000 to $30,000	$25,000 to $60,000	Not less than $50,000

Sources: https://www.epa.gov/sites/production/files/documents/311pen.pdf

What's new in the world of spill plans?

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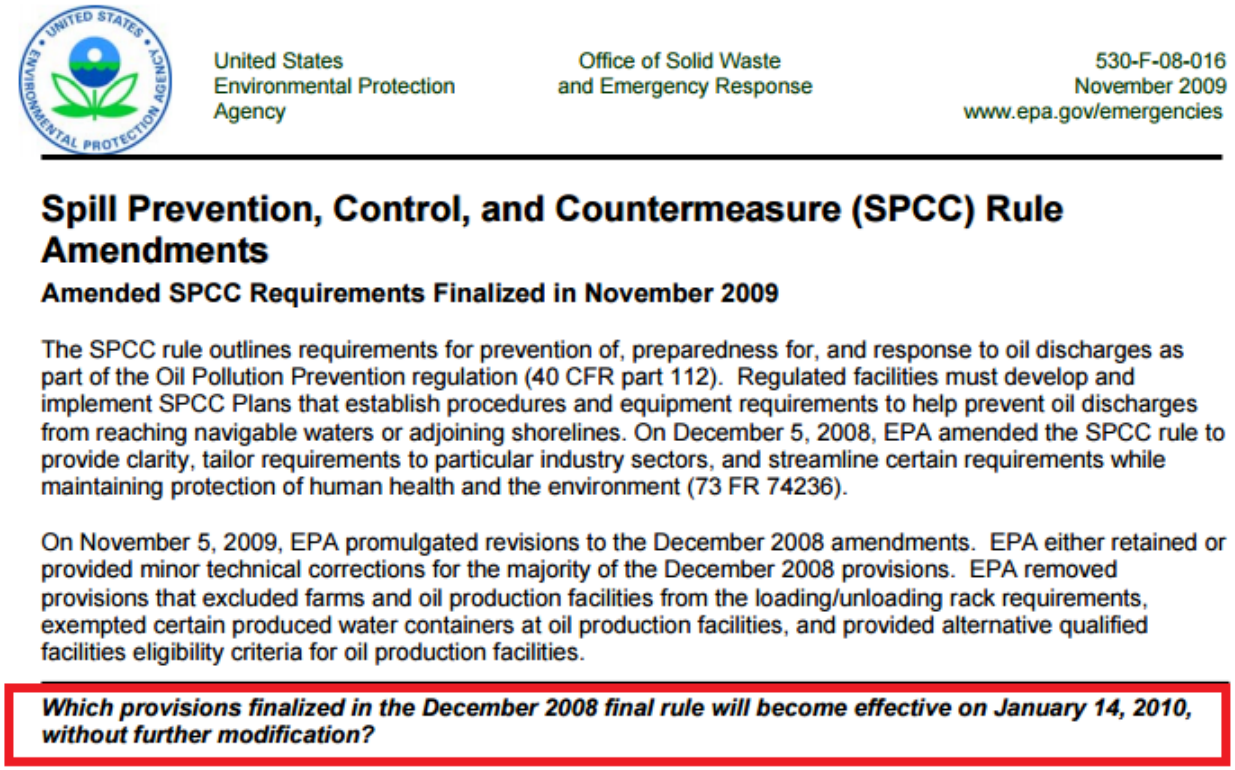

United States Environmental Protection Agency

Office of Solid Waste and Emergency Response

530-F-08-016
November 2009
www.epa.gov/emergencies

Spill Prevention, Control, and Countermeasure (SPCC) Rule Amendments

Amended SPCC Requirements Finalized in November 2009

The SPCC rule outlines requirements for prevention of, preparedness for, and response to oil discharges as part of the Oil Pollution Prevention regulation (40 CFR part 112). Regulated facilities must develop and implement SPCC Plans that establish procedures and equipment requirements to help prevent oil discharges from reaching navigable waters or adjoining shorelines. On December 5, 2008, EPA amended the SPCC rule to provide clarity, tailor requirements to particular industry sectors, and streamline certain requirements while maintaining protection of human health and the environment (73 FR 74236).

On November 5, 2009, EPA promulgated revisions to the December 2008 amendments. EPA either retained or provided minor technical corrections for the majority of the December 2008 provisions. EPA removed provisions that excluded farms and oil production facilities from the loading/unloading rack requirements, exempted certain produced water containers at oil production facilities, and provided alternative qualified facilities eligibility criteria for oil production facilities.

Which provisions finalized in the December 2008 final rule will become effective on January 14, 2010, without further modification?

Sources: https://www.epa.gov/sites/production/files/2015-08/documents/fact_sheet_11-05-09.pdf

What's new in the world of spill plans?

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SPCC Guidance for Regional Inspectors

In August 2013, EPA revised the *SPCC Guidance for Regional Inspectors.* This guidance is intended to assist regional inspectors in reviewing a facility's implementation of the Spill Prevention, Control, and Countermeasure (SPCC) rule at 40 CFR part 112. This document is also available to owners and operators of facilities that may be subject to the requirements of the SPCC rule and the general public. The document is designed to provide a consistent national policy on several SPCC-related issues.

This guidance is a living document and will be revised, as necessary, to reflect any relevant regulatory amendments. Additionally, EPA welcomes comments from the regulated community and the public on the guidance.

- Webinars on the revisions to the SPCC Guidance for Regional Inspectors
- How do I comment on the Spill Prevention, Control, and Countermeasure (SPCC) Guidance for Regional Inspectors?
- Disclaimer
- Guidance Content

Sources: https://www.epa.gov/oil-spills-prevention-and-preparedness-regulations/spcc-guidance-regional-inspectors

What's new in the world of spill plans?

1.3.4 Summary of 2008 Revisions

On December 5, 2008, EPA amended the SPCC rule to address a number of issues and concerns raised by the regulated community. The amendments were intended to increase clarity, streamline the requirements to which facility owners and operators must adhere, and modify the requirements for specific industry sectors, including farms and oil production facilities. Specific topics addressed by the 2008 rule revisions are discussed below, and are also highlighted in *Appendix C* of this guidance, *Summary of Revised SPCC Rule Provisions*.

Hot-mix Asphalt (HMA)

The 2008 amendments exempted hot-mix asphalt (HMA) and HMA-containers from the rule requirements by modifying §112.1(d)(2) and adding paragraph §112.1(d)(8). HMA is typically asphalt cement (AC) mixed with aggregate. The capacity of HMA containers is not counted toward the facility's oil storage capacity calculation because this material is unlikely to flow as a result of the entrained aggregate. Therefore, there would be very few circumstances, if any, in which a discharge of HMA would have the potential to reach navigable waters or adjoining shorelines. However, AC, asphalt emulsions, and cutbacks, that are not entrained with aggregates and are thus not HMAs, continue to be subject to SPCC regulation. This exemption is discussed further in *Chapter 2: SPCC Rule Applicability* (see *Section 2.2.4*).

Pesticide Application Equipment

The 2008 amendments exempted all pesticide application equipment and related mix containers regardless of ownership or where used when crop oil or adjuvant oil is added to the pesticide formulation (§112.1(d)(10)). EPA also modified §112.1(d)(2) so that the capacity of pesticide application equipment and

Sources: https://www.epa.gov/sites/production/files/2014-04/documents/1_introduction_2014.pdf

Professional engineer certification: when do you really need it?

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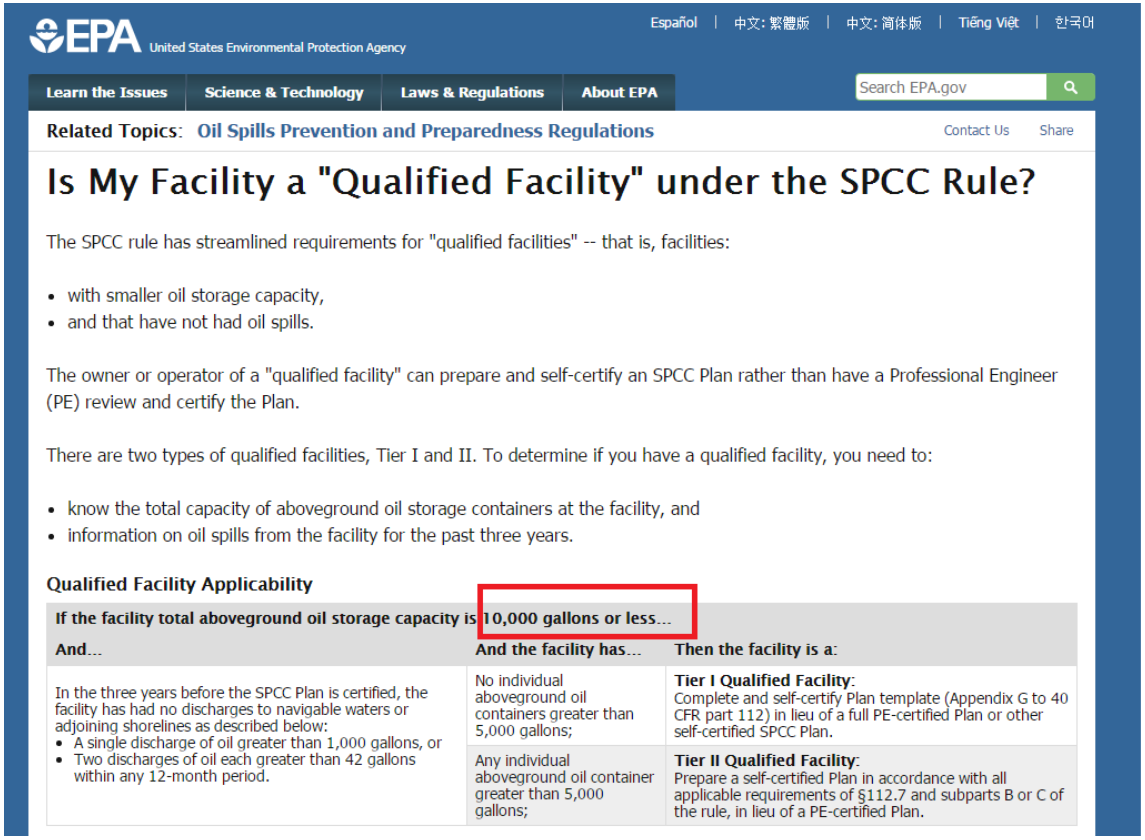

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Is My Facility a "Qualified Facility" under the SPCC Rule?

The SPCC rule has streamlined requirements for "qualified facilities" -- that is, facilities:

- with smaller oil storage capacity,
- and that have not had oil spills.

The owner or operator of a "qualified facility" can prepare and self-certify an SPCC Plan rather than have a Professional Engineer (PE) review and certify the Plan.

There are two types of qualified facilities, Tier I and II. To determine if you have a qualified facility, you need to:

- know the total capacity of aboveground oil storage containers at the facility, and
- information on oil spills from the facility for the past three years.

Qualified Facility Applicability

If the facility total aboveground oil storage capacity is 10,000 gallons or less...		
And...	**And the facility has...**	**Then the facility is a:**
In the three years before the SPCC Plan is certified, the facility has had no discharges to navigable waters or adjoining shorelines as described below: • A single discharge of oil greater than 1,000 gallons, or • Two discharges of oil each greater than 42 gallons within any 12-month period.	No individual aboveground oil containers greater than 5,000 gallons;	**Tier I Qualified Facility**: Complete and self-certify Plan template (Appendix G to 40 CFR part 112) in lieu of a full PE-certified Plan or other self-certified SPCC Plan.
	Any individual aboveground oil container greater than 5,000 gallons;	**Tier II Qualified Facility**: Prepare a self-certified Plan in accordance with all applicable requirements of §112.7 and subparts B or C of the rule, in lieu of a PE-certified Plan.

Sources: https://www.epa.gov/oil-spills-prevention-and-preparedness-regulations/my-facility-qualified-facility-under-spcc-rule

Professional engineer certification: when do you really need it?

designed to hold at least the maximum capacity of any single compartment of a tank car of tank truck loaded or unloaded at the facility. Transfer areas (those not associated with a loading/unloading rack) need to comply with the general secondary containment requirements in §112.7(c).

Additionally, any piping, equipment, or device not contained within a double-walled AST is subject to the general secondary containment requirements of §112.7(c). If a facility drainage system will be used to comply with secondary containment then the piping, equipment or device is also subject to requirements of §112.8(b) or §112.12(b).

4.5 Overview of the Impracticability Determination Provision

Although secondary containment systems are preferred, they may not always be practicable. If a PE determines that containment methods are "impracticable," alternative modes of protection to prevent and contain oil discharges are available. The SPCC rule provision found in §112.7(d) allows facility owners/operators to substitute other measures in place of secondary containment.

If an impracticability determination is made, the SPCC Plan must clearly describe why secondary containment measures are impracticable and how the alternative measures are implemented (§112.7(d)). See *Section 4.6* of this chapter for more information on the alternative measures.

§112.7(d)

Provided your Plan is certified by a licensed Professional Engineer under §112.3(d), or, in the case of a qualified facility that meets the criteria in §112.3(g), the relevant sections of your Plan are certified by a licensed Professional Engineer under §112.6(d), if you determine that the installation of any of the structures or pieces of equipment listed in paragraphs (c) and (h)(1) of this section, and §§112.8(c)(2), 112.8(c)(11), 112.9(c)(2), 112.10(c), 112.12(c)(2), and 112.12(c)(11), to prevent a discharge as described in 112.1(b) from any onshore or offshore facility is not

Sources: https://www.epa.gov/sites/production/files/2014-04/documents/4_secondarycontainment_impracticability_2014.pdf

Professional engineer certification: when do you really need it?

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Tier I Qualified Facility SPCC Plan Template

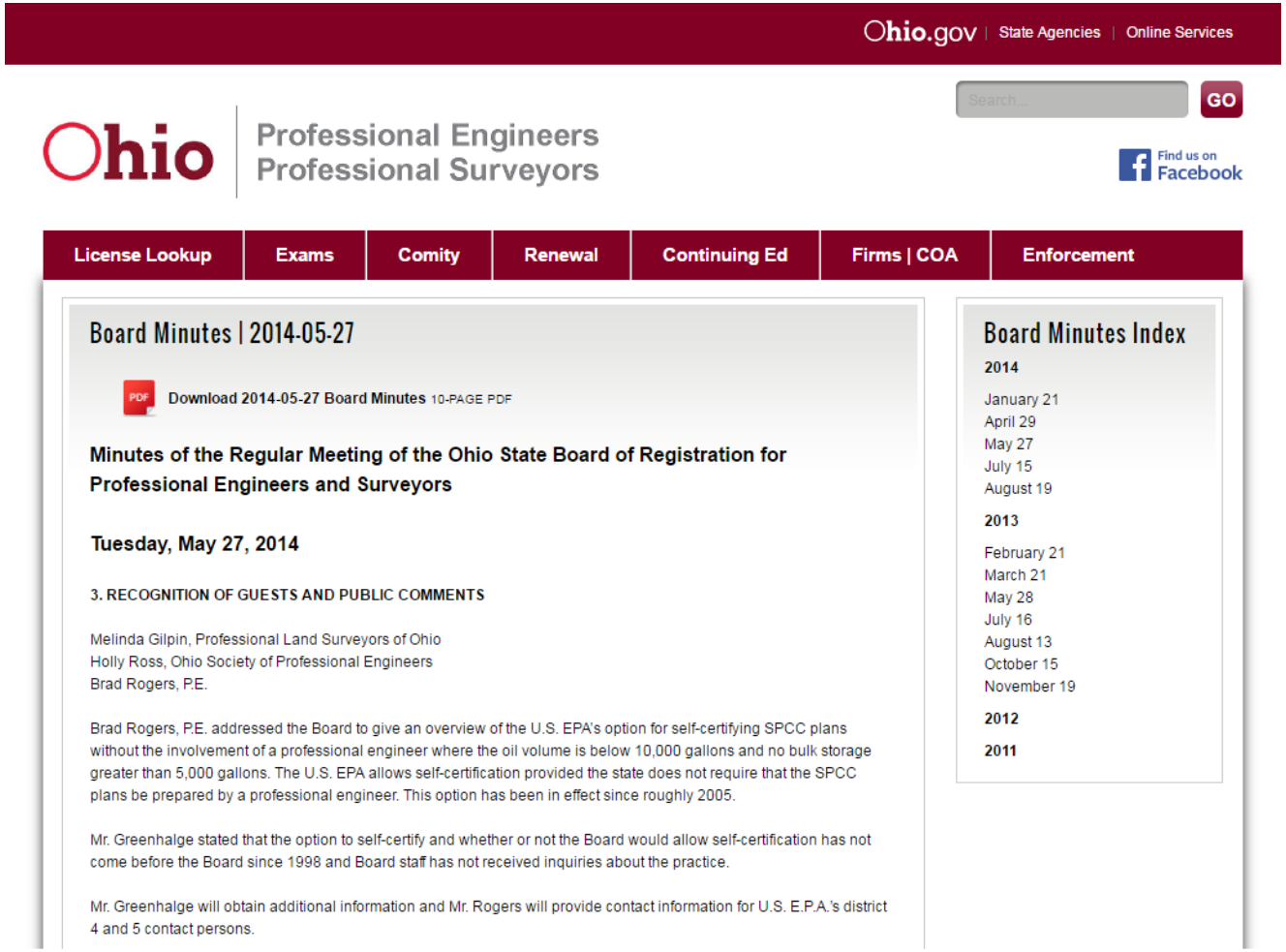
Tier I qualified facility owners or operators can complete a self-certified Spill Prevention, Control, and Countermeasure (SPCC) Plan template in lieu of a full SPCC Plan. These facilities must meet the eligibility criteria for a qualified facility and have no individual aboveground oil storage containers greater than 5,000 gallons.

Note: Some states do not allow self-certification. You should consult with your state to ensure that SPCC Plan certification is not limited to Professional Engineers (PE). A list of State PE licensing board contacts is available.

- Template
- Examples of Plans for Tier I Qualified Facilities
- Example 1: Tier I Qualified Facility Plan for a Farm
- Example 2: Tier I Qualified Facility Plan for an Automotive Service Garage

Sources: https://www.epa.gov/oil-spills-prevention-and-preparedness-regulations/tier-i-qualified-facility-spcc-plan-template

Professional engineer certification: when do you really need it?



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Board Minutes | 2014-05-27

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Minutes of the Regular Meeting of the Ohio State Board of Registration for Professional Engineers and Surveyors

Tuesday, May 27, 2014

3. RECOGNITION OF GUESTS AND PUBLIC COMMENTS

Melinda Gilpin, Professional Land Surveyors of Ohio
Holly Ross, Ohio Society of Professional Engineers
Brad Rogers, P.E.

Brad Rogers, P.E. addressed the Board to give an overview of the U.S. EPA's option for self-certifying SPCC plans without the involvement of a professional engineer where the oil volume is below 10,000 gallons and no bulk storage greater than 5,000 gallons. The U.S. EPA allows self-certification provided the state does not require that the SPCC plans be prepared by a professional engineer. This option has been in effect since roughly 2005.

Mr. Greenhalge stated that the option to self-certify and whether or not the Board would allow self-certification has not come before the Board since 1998 and Board staff has not received inquiries about the practice.

Mr. Greenhalge will obtain additional information and Mr. Rogers will provide contact information for U.S. E.P.A.'s district 4 and 5 contact persons.

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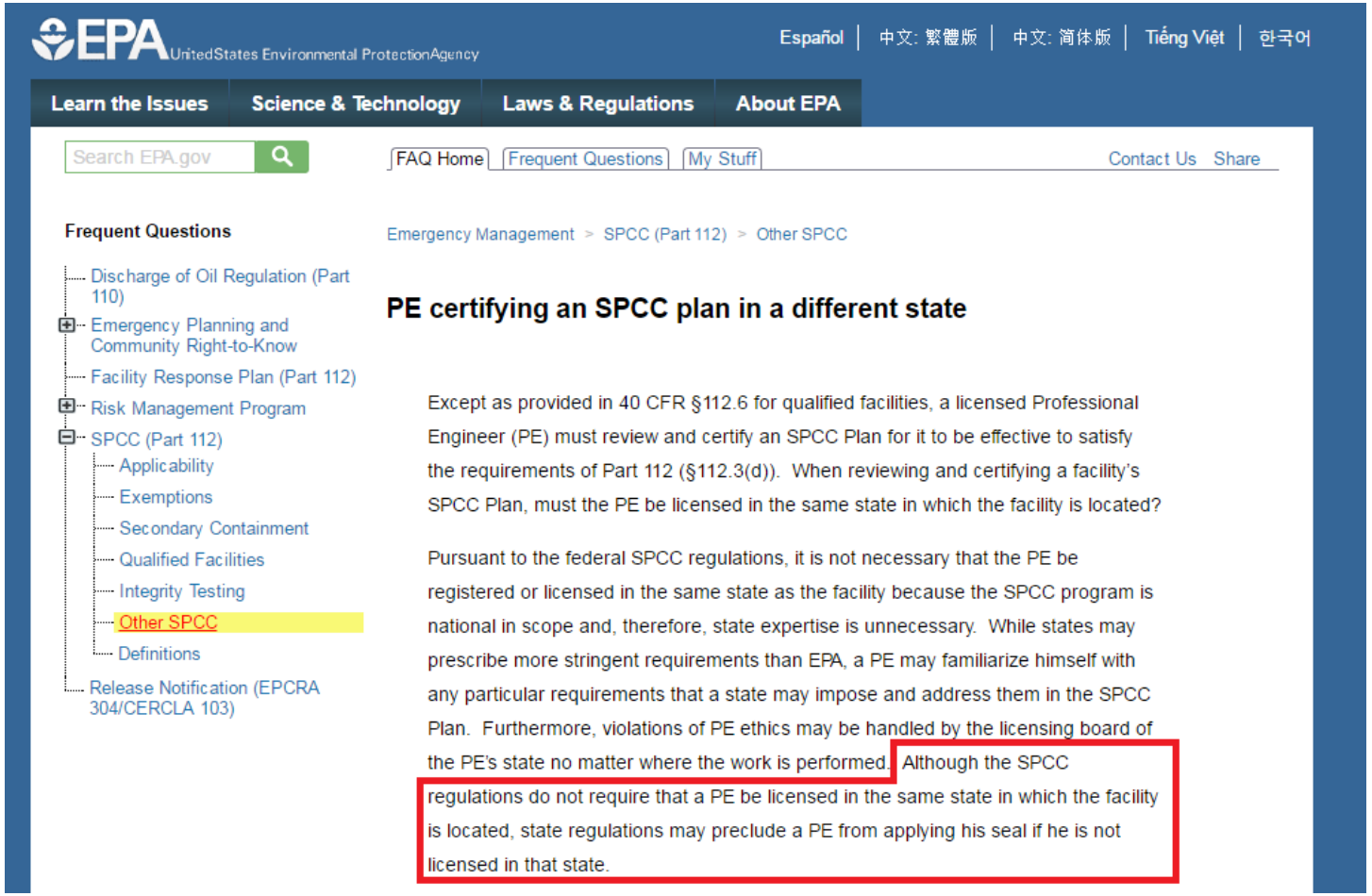
Sources: http://www.peps.ohio.gov/Minutes/BoardMinutes%7C2014-05-27.aspx

Professional engineer certification: when do you really need it?



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Frequent Questions

- Discharge of Oil Regulation (Part 110)
- Emergency Planning and Community Right-to-Know
- Facility Response Plan (Part 112)
- Risk Management Program
- SPCC (Part 112)
  - Applicability
  - Exemptions
  - Secondary Containment
  - Qualified Facilities
  - Integrity Testing
  - Other SPCC
  - Definitions
- Release Notification (EPCRA 304/CERCLA 103)

Emergency Management > SPCC (Part 112) > Other SPCC

PE certifying an SPCC plan in a different state

Except as provided in 40 CFR §112.6 for qualified facilities, a licensed Professional Engineer (PE) must review and certify an SPCC Plan for it to be effective to satisfy the requirements of Part 112 (§112.3(d)). When reviewing and certifying a facility's SPCC Plan, must the PE be licensed in the same state in which the facility is located?

Pursuant to the federal SPCC regulations, it is not necessary that the PE be registered or licensed in the same state as the facility because the SPCC program is national in scope and, therefore, state expertise is unnecessary. While states may prescribe more stringent requirements than EPA, a PE may familiarize himself with any particular requirements that a state may impose and address them in the SPCC Plan. Furthermore, violations of PE ethics may be handled by the licensing board of the PE's state no matter where the work is performed. Although the SPCC regulations do not require that a PE be licensed in the same state in which the facility is located, state regulations may preclude a PE from applying his seal if he is not licensed in that state.

Sources: https://emergencymanagement.zendesk.com/hc/en-us/articles/212085097-PE-certifying-an-SPCC-plan-in-a-different-state

Anatomy of an audit, where do auditors look first?

Anatomy of an audit, where do auditors look first?

- First and foremost – the cross reference sheet or table of contents
  - Does it match the 2008/2009 rules?
  - Does it have anything as “N/A” that should be addressed?
  - Does it address rules that don’t apply as if they do?
- Facility Diagram
  - Does it meet the requirements of a facility diagram in the rules?
  - Does it reflect what’s observed during a facility walk-through?
- Training and Inspection Records
  - Are there gaps in employee training?
  - Are inspection records signed by the appropriate person and retained for 3 years?
  - Do inspection forms meet or exceed an industry standard?

Facility diagram criteria that often goes overlooked

Facility diagram criteria that often goes overlooked

- "Facility diagram, which must mark the location and contents of
  - each fixed oil storage container and the **storage area where mobile or portable containers are located.**
- The facility diagram must identify
  - the location of and mark as **"exempt" underground tanks** that are otherwise exempted from the requirements of this part under §112.1(d)(4).
- The facility diagram must also include
  - **all transfer stations and connecting pipes**, including intra-facility gathering lines that are otherwise exempted from the requirements of this part under §112.1(d)(11)."

Sources: 40 CFR 112.7

Important definitions

Important definitions

- Loading/unloading rack: a fixed structure (such as a platform, gangway) necessary for loading or unloading a tank truck or tank car, which is located at a facility subject to the requirements of this part. A loading/unloading rack **includes a loading or unloading arm**, and may include any combination of the following: piping assemblages, valves, pumps, shut-off devices, overfill sensors, or personnel safety devices.
- Permanently closed means 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.**

Sources: 40 CFR 112.2

What constitutes “oil-like”?

What constitutes “oil-like”?

- U.S. Coast Guard list of petroleum and non-petroleum oils
  - “This list in not a complete list of oils regulated under 40 CFR part 112, rather a list of chemicals that are considered oil by the U.S. Coast Guard… Some substances that have not been considered oils historically may be added to this list in the future if they are determined to have oil-like characteristics.”
- SPCC Guidance for Regional Inspectors Section 2.2.3
  - For purposes of 40 CFR part 112, the CWA §311(b)(2) **hazardous substances as identified under 40 CFR part 116 are not considered oils**.

Sources: https://www.steeltank.com/Portals/0/Petroleum%20and%20non-petroleum%20oils%20Revised.pdf

What constitutes “oil-like”?

August 2016 Action Initiation List

August 2016 (as of 10/07/2016)

Title	Stage What's This?	Contact What's This?	Abstract What's This?	Projected Publication Date What's This?
Clean Water Act Hazardous Substances Spill Prevention	NPRM	Stacey Yonce 202-564-2288 Yonce.Stacey@epa.gov	Abstract	More than 12 months

Clean Water Act Hazardous Substances Spill Prevention

As a result of a consent decree, the EPA is embarking on a rulemaking for the prevention of hazardous substance discharges under section 311(j)(1)(c) of the Clean Water Act (CWA). Section 311(j)(1)(c) reads, in part: "...as soon as practicable after October 18, 1972, and from time to time thereafter, the President shall issue regulations ... establishing procedures, methods, and equipment and other requirements for equipment to prevent discharges of ... hazardous substances from ... onshore facilities ... and to contain such discharges ..." The CWA hazardous substances and their associated reportable quantities (RQs) are identified in 40 CFR part 116 and 117 respectively. The EPA will be assessing the consequences associated with the potential discharge of CWA hazardous substances into the nation's waters, determining appropriate regulatory requirements for facilities handling such substances to prevent their discharge, and the costs and benefits of those regulatory elements. Back

Sources: https://www.epa.gov/laws-regulations/actions-initiated-month#water
Note: NPRM - Notice of Proposed Rulemaking

Keep it simple… so you don't get caught out of compliance

Keep it simple… so you don't get caught out of compliance

- Wordy documents are harder to remember, otherwise we'd hand all our new employees a copy of the federal regulations and tell them to follow them
- The more specific your plan is, the more likely you are to be non-compliant in an audit
  - For portable containers set a maximum that will fit in the storage area, not the maximum you expect to store
  - Use generic descriptions
    - 15W50 motor oil is just motor oil
    - Olive, canola, or sunflower seed oils are all vegetable-based oils
- Establish a minimum and exceed expectations
- Think about holidays (or other shutdowns)

Miscellaneous findings and best practices

Miscellaneous findings and best practices

Findings

- Not treating mobile refuelers that operate within a facility as a tank and lacking secondary containment
- Ignoring the aboveground storage tank associated with a generator as oil-filled operational equipment
- Forgetting about or under estimating storage capacity of oil-mixtures

Best Practices

- Think about your worst case release scenario and what actions would be required to contain it
- Self audit bulk transfers, particularly those without loading racks

Summary

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Questions?

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