

# Revisions to the SPCC Guidance for Regional Inspectors: Outreach Sessions for the regulated community

# LEGAL DISCLAIMER

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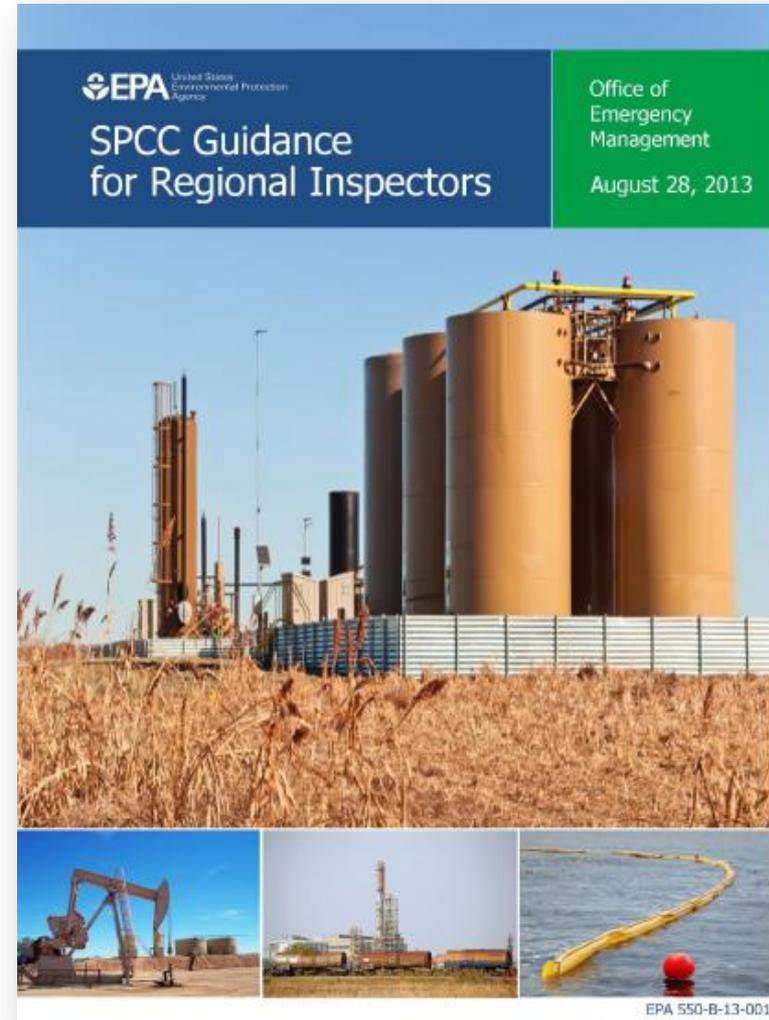
*This presentation is meant to provide an overview to EPA inspectors, owners and operators of facilities of regulated, and the general public on the implementation of the Spill Prevention, Control, and Countermeasure (SPCC) rule (40 CFR Part 112). This presentation seeks to promote nationally-consistent implementation of the SPCC rule. The statutory provisions and EPA regulations described in this presentation contain legally binding requirements. This presentation does not substitute for those provisions or regulations, nor is it a regulation itself. In the event of a conflict between the discussion in this presentation and any statute or regulation, this presentation is not controlling. This presentation does not impose legally binding requirements on EPA or the regulated community, and might not apply to a particular situation based upon the circumstances. The word “should” as used in this presentation is intended solely to recommend or suggest an action, and is not intended to be viewed as controlling. Examples in this presentation are provided as suggestions and illustrations only. While this presentation indicates possible approaches to assure effective implementation of the applicable statute and regulations, EPA retains the discretion to adopt approaches on a case-by-case basis that differ from this presentation where appropriate. Any decisions regarding compliance at a particular facility will be made based on the application of the statute and regulations. References or links to information cited throughout this presentation are subject to change. Rule provisions and internet addresses provided in this guidance are current as of August 2013. This presentation may be revised periodically without public notice.*

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# Purpose

- EPA issued Version 2.0 of the SPCC guidance on **August 28, 2013**
- This presentation focuses on the *substantive* changes since the previous version.

*This presentation is not intended to serve as training on the entire SPCC rule, but rather focuses on the **new or revised content and structure of the Guidance.***



# Guidance Document Chapters

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- Chapter 1: Introduction
- Chapter 2: SPCC Rule Applicability
- Chapter 3: Environmental Equivalence
- Chapter 4: Secondary Containment and Impracticability Determinations
- Chapter 5: Oil/Water Separators
- Chapter 6: Facility Diagram and Description
- Chapter 7: Inspection, Evaluation, and Testing
- Index

# Appendices

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- A. Text of CWA 311(j)(1)(c)
- B. Text of Selected Regulations
- C. Summary of Revised Rule Provisions
- D. Sample Bulk Storage Facility SPCC Plan
- E. Sample Production Facility SPCC Plan
- F. Sample Contingency Plan
- G. SPCC Inspection Checklists
- H. Other Policy Documents

*Appendices that have been revised are shown in blue*

# Chapter 1: Introduction

# Contents of Chapter 1

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1. SPCC Background (Purpose and Scope/Statutory Framework)
2. Regulatory History
  - Initial Promulgation & Early Amendments
  - SPCC Taskforce, GAO Recommendations
  - 1991, 1993, and 1997 Proposals
  - 2002 Amendments
  - Additional Amendments to Streamline the Rule
  - Compliance Date Amendments

*Sections described in this presentation are shown in green*

# Contents of Chapter 1 (continued)

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## 3. Revised Rule Provisions

- Rule Organization
- Summary of Major 2002 Provisions
- Summary of 2006 Revisions
- Summary of 2008 Revisions
- Summary of Navigable Waters Ruling
- Summary of 2009 Amendments
- Effective Date
- Milk and Milk Products Container Exemption

## 4. Using this Guidance

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# 1.2.5 Amendments to Streamline the Rule

The guidance now summarizes these events in SPCC rule history:

2004

- Notices of Data Availability (September 20, 2004)

2005

- Rule Proposal (December 12, 2005)

2006

- Final Rule (December 26, 2006)

2007

- Rule Proposal (October 15, 2007)

2008

- Final Rule (December 5, 2008)

2009

- Modifications finalized (November 13, 2009)

2010

- Effective date for 2008 and 2009 final rules (January 14, 2010)

2011

- Final Rule to exempt milk and milk product containers (April 18, 2011)

# 1.2.6 Compliance Date Amendments

- EPA extended the compliance dates for facilities to update (or for new facilities to prepare) and implement an SPCC Plan
  - Eight times, 2003-2011
  - Guidance summarizes each of these extensions.
- All compliance dates are in the past.
  - If the owner or operator of a facility does not have an SPCC Plan, must develop a Plan immediately.
  - Plan must comply with all amendments to the rule.
- New production facilities have six months to develop and implement their SPCC Plan

All other facilities starting operation...	Must...
On or before August 16, 2002	Maintain its existing SPCC Plan Amend and implement the amended SPCC Plan no later than November 10, 2011
After August 16, 2002 through November 10, 2011	Prepare and implement an SPCC Plan no later than November 10, 2011
After November 10, 2011 (excluding oil production facilities)	Prepare and implement an SPCC Plan before beginning operations
After November 10, 2011 (oil production facilities)	Prepare and implement an SPCC Plan within six months after beginning operations.

# Other Rule Revisions Described in Guidance

1.3.3 [Summary of 2006 Revisions](#)

1.3.4 [Summary of 2008 Revisions](#)

1.3.5 [Navigable Waters Ruling](#)

1.3.6 2009 Amendments to 2008 Rule

1.3.7 Delays to Effective Date

1.3.5 [Milk Exemption](#)

# Chapter 2: SPCC Rule Applicability

# Contents of Chapter 2

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1. Introduction
2. Definition of Oil
3. Activities Involving Oil
4. Facilities
5. “Non-transportation-related” – EPA/DOT Jurisdiction
6. Reasonable Expectation of Discharge to Navigable Waters in Quantities That May Be Harmful
7. Storage Capacity Thresholds

*Sections described in this presentation are shown in green*

# Contents of Chapter 2 (continued)

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8. Exemptions to the Requirements of the SPCC Rule
9. Determination of Applicability by the Regional Administrator
10. SPCC Applicability for Different Types of Containers
11. Determination of Applicability of Facility Response Plans
12. Role of the EPA Inspector

## 2.2 Definition of Oil

- This section was reorganized and expanded to provide information on the applicability of various substances:
  - 2.2.1 Petroleum Oils & Non-Petroleum Oils
  - 2.2.2 Synthetic Oils
  - 2.2.3 Animal Fats & Vegetable Oils
  - 2.2.4 Asphalt
  - 2.2.5 Natural Gas & Condensate
  - 2.2.6 Oil and Water Mixtures
  - 2.2.7 Produced Water
  - 2.2.8 Hazardous Substances and Hazardous Waste
  - 2.2.9 Denatured Ethanol
  - 2.2.10 Biodiesel and Biodiesel Blends

## 2.4 Facilities

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Issues addressed in guidance revisions:

- 2.4.1 Revised Definition of Facility
- 2.4.2 Onshore & Offshore Facilities
- 2.4.3 Revised Definition of Production Facility
- 2.4.4 Drilling and Workover Facilities
- 2.4.5 Revised Definition of Farm
- 2.4.6 Aggregation or Separation
- 2.4.7 Natural Gas Facilities and Pipelines

## 2.4.6 Aggregation or Separation

- Example factors to determine the boundaries of a facility:
  - Ownership, management, and operation of the buildings, structures, equipment, installations, pipes, or pipelines on the site;
  - Similarity in functions, operational characteristics, and types of activities occurring at the site;
  - Adjacency; or
  - Shared drainage pathways (e.g., same receiving water bodies)
- An owner or operator may not characterize a facility so as to simply avoid applicability of the rule.
- Guidance provides [six example scenarios](#) of how a facility owner or operator may determine what is considered a “facility” for the purposes of an SPCC Plan.

## 2.5 “Non-transportation-Related”

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The guidance contains scenarios that have raised jurisdictional questions. Revised sections include:

- 2.5.1 Tank Trucks
- 2.5.3 Loading/unloading Activities
- 2.5.6 Breakout Tanks
- 2.5.7 Motive Power
- 2.5.8 Flowlines and Gathering Lines

*Appendix H* includes diagrams that show EPA’s regulatory jurisdiction at complexes.

## 2.6.4 Definition of Navigable Waters

- “Navigable waters” is defined for SPCC in §112.2
- This definition has been revised on several occasions, most recently in 2008.
- **The current definition is the one promulgated by EPA in 1973.**
- See EPA OWOW Website for up to date information.

# 2.7.1 Storage Capacity Calculations

Guidance provides quick summaries on key questions

## **FYI - What capacities to count and not to count**

Do count the following oil containers' capacities:

- All containers of oil with a capacity of 55 U.S. gallons or greater (unless otherwise exempt).

Do not count the following exempt oil containers' capacities:

- Permanently closed containers
- Motive power containers
- Hot-mix asphalt (HMA) or any HMA containers
- Single-family residential heating oil containers
- Pesticide application equipment and related mix containers
- Milk and milk product containers and associated piping and appurtenances
- Completely buried tanks that are subject to all of the technical requirements of 40 CFR part 280 or a State program approved under 40 CFR part 281
- Underground oil storage tanks including below-grade vaulted tanks, that supply emergency diesel generators at nuclear power stations
- Containers used exclusively for wastewater treatment

§112.1(d)(2)

## 2.7.2 Definition of Storage Capacity

### 2.7.3 Tank Re-rating

- Industry standards for certain storage tanks define the storage capacity of the tank as the **physical capacity of the shell to contain liquid**.
  - Devices such as hydraulic overfill valves or high level alarms are not a means of limiting the capacity of a storage container
- An owner or operator may reduce the capacity of a tank by:
  - Changing the shell dimensions (e.g., removing shell plate sections, or installing a double bottom)
  - Permanently installing overflow ports or vents
- Alterations must be performed in accordance with applicable industry standards.
- Alterations require a technical amendment to the SPCC Plan certified by a PE.

## 2.8 Exemptions to the SPCC Rule

This section of the Guidance was updated and expanded for completeness.

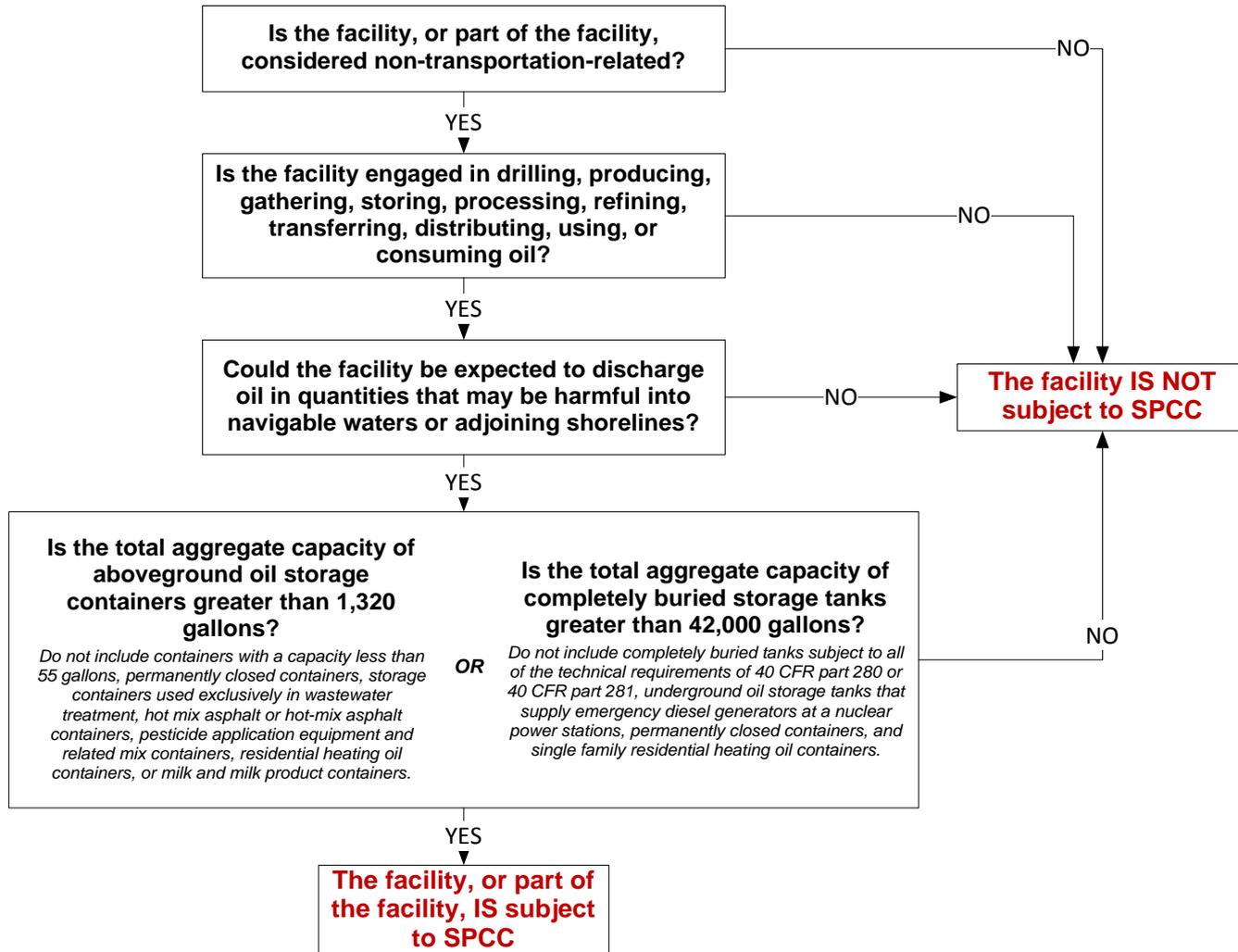
- 2.8.1 [Permanently Closed Containers](#)
- 2.8.3 [Underground Storage Tanks](#)
- 2.8.4 [Underground Emergency Diesel Generator Tanks at Nuclear Power Stations](#)
- 2.8.5 [Wastewater Treatment Facilities](#)
- 2.8.6 [Motive Power](#)
- 2.8.7 [Hot-mix Asphalt and HMA Containers](#)
- 2.8.8 [Heating Oil at Single-Family Residences](#)
- 2.8.9 [Pesticide Application Equipment](#)
- 2.8.10 [Intra-facility Gathering Lines](#)
- 2.8.11 [Milk and Milk Product Containers](#)

## 2.10 SPCC Applicability for Different Types of Containers

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- This section of the guidance describes how the rule applies to specific types of containers.
- Updated and expanded for completeness and to include additional exemptions resulting from recent rule amendments, notably:
  - [2.10.2 Double-walled or vaulted tanks](#)
  - 2.10.4 Oil-filled operational equipment
  - 2.10.6 Oil-powered generators
  - 2.10.7 Bulk storage containers at tank battery, separation and treating areas

# SPCC Applicability Flowchart



# Chapter 3: Environmental Equivalence

# Contents of Chapter 3

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1. Introduction
2. Substantive Requirements Subject to the Environmental Equivalence Provision
3. Policy Issues Addressed by Environmental Equivalence
4. Review of Environmental Equivalence

*Sections described in this presentation are shown in green*

## 3.1 Introduction to Environmental Equivalence

- The environmental equivalence provision allows for deviations from specific requirements of the SPCC rule
  - Alternative measures provide equivalent environmental protection.
- Expertise of a trained professional is important in making site-specific equivalence determinations.
  - Owners or operators of qualified facilities who choose to self-certify their SPCC Plans in lieu of PE-certification cannot take advantage of the flexibility allowed by the environmental equivalence provision, unless the alternative methods have been reviewed and certified in writing by a PE.

§112.7(a)(2)

§112.6(b)(3)(i)

## 3.3 Policy Issues Addressed by EE

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- Examples meant to clarify *selected* rule provisions and to illustrate how deviations based on environmentally equivalent alternatives may be implemented
  - Includes specific issues about which the regulated community has raised questions.
- Sections that have been updated and expanded:
  - 3.3.2 Corrosion protection and leak testing of completely buried metallic storage tanks
  - 3.3.3 Overfill prevention
  - 3.3.4 Facility transfer operations, pumping, and facility process requirements
  - 3.3.5 Flowline/intra-facility gathering line maintenance program
  - 3.3.6 Security
  - 3.3.8 Alternative measures for containers at oil production facilities

### 3.3.5 Flowline/Intra-facility Gathering Line Maintenance Plan

- Written maintenance program must address procedures to:
  - Ensure that flowlines and intra-facility gathering lines and associated valves and equipment are compatible with the type of production fluids, their potential corrosivity, volume, and pressure, and other conditions expected in the operational environment.
  - Visually inspect and/or test flowlines and intra-facility gathering lines and associated appurtenances on a periodic and regular schedule for leaks, oil discharges, corrosion, or other conditions that could lead to a discharge as described in §112.1(b)
  - Take corrective action or make repairs to any flowlines and intra-facility gathering lines and associated appurtenances as indicated by regularly scheduled visual inspections, tests, or evidence of a discharge.
  - Promptly remove or initiate actions to stabilize and remediate any accumulations of oil discharges associated with flowlines, intra-facility gathering lines, and associated appurtenances.

### 3.3.5 Flowline/Intra-facility Gathering Line Maintenance Plan

- Maintenance program requirements may be deviated from, if an environmentally equivalent alternative measure is implemented
  - Establish the scope and frequency of inspections, tests, and preventive maintenance based on industry standards, manufacturer's recommendations, and other sources of good engineering practice.

## 3.3.6 Security (excluding oil production facilities)

- Requirements were amended to be more performance-based and allow security measures tailored to facility's specific characteristics and location
  - Plan must contain discussion of how measures help deter vandals and prevent unauthorized access to containers and equipment that could be involved in an oil discharge.
  - Measures may include fencing and lighting, as appropriate for the facility
- The security requirements remain subject to the environmental equivalence provision
  - Given the increased flexibility, there may be few, if any, instances where a deviation is necessary.

# Chapter 4: Secondary Containment and Impracticability

# Contents of Chapter 4

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1. Introduction
2. General Secondary Containment Requirements
3. Specific (Sized) Secondary Containment Requirements
4. Issues Related to Secondary Containment Requirements
5. Overview of the Impracticability Determination Provision
6. Required Measures when Secondary Containment is Impracticable
7. Selected Issues Related to Secondary Containment and Impracticability Determinations
8. Alternative Measures in lieu of Secondary Containment at Oil Production Facilities

*Sections described in this presentation are shown in green*

## 4.2 General Secondary Containment Requirements

- All areas and equipment with the potential for a discharge are subject to the general secondary containment provision, §112.7(c).
- Sized secondary containment also fulfills the general secondary containment requirements.
- Expanded discussion of considerations for determining the **most likely discharge quantity**, including:
  - the **typical failure mode** (e.g., overfill, fracture in container wall, etc.);
  - resulting oil flow rate;
  - facility personnel response time; and
  - duration of the discharge.

## 4.2 Alternate Measures in Lieu of Secondary Containment

- Providing adequate general secondary containment for certain equipment is often impracticable
- SPCC rule provides optional alternative for:
  - Qualified oil-filled operational equipment
  - Flowlines and intra-facility gathering lines

§112.7(k)

§112.9(d)(3)

## 4.3 Specific (Sized) Secondary Containment Requirements

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- Containment calculation examples and blank worksheets are available in *Appendix H* (developed to help qualified facility owner/operators):
  - Single Vertical Cylindrical Tank Inside a Rectangular or Square Dike or Berm
  - Multiple Horizontal Cylindrical Tanks Inside a Rectangular or Square Dike or Berm
  - Rectangular or Square Remote Impoundment Structure
  - Constructing New Secondary Containment

## 4.4 Issues Related to Secondary Containment Requirements

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Sections that have been updated:

- 4.4.1 Passive vs. Active Measures
- 4.4.3 Facility Drainage (Onshore Facilities)
- 4.4.4 Man-made Structures
- 4.4.5 [Double-walled or Vaulted Tanks or Containers](#)

## 4.5 Overview of Impracticability Determination

- Expertise of a trained professional is important in making site-specific impracticability determinations.
- Owners or operators of qualified facilities who self-certify their SPCC Plans cannot take advantage of the impracticability provision,
  - unless such determinations are reviewed and certified in writing by a PE

## 4.7 Selected Issues Related to Secondary Containment and Impracticability Determinations

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- Commonly raised issues related to secondary containment requirements for various equipment and areas at a facility, and the use of impracticability determinations.
- Sections that have been updated and expanded for completeness:
  - 4.7.1 Piping
  - 4.7.2 Loading or unloading area (or transfer area)
  - 4.7.3 Loading/unloading rack
  - 4.7.5 Mobile/portable containers
  - 4.7.6 Mobile refuelers and other non-transportation-related tank trucks
  - 4.7.7 Bulk storage containers at Oil Production Facilities

## 4.8.1 Flow-through Process Vessels and Alternative Requirements

### Alternative Requirements for flow-through process vessels:

- Provide general secondary containment in accordance with §112.7(c), and:
  - Periodically and on a regular schedule, **visually inspect and/or test** flow-through process vessels and associated components (such as dump valves) for leaks, corrosion, or other conditions that could lead to a discharge as described in §112.1(b)
  - **Take corrective action or make repairs** to flow-through process vessels and any associated components as indicated by regularly scheduled visual inspections, tests, or evidence of an oil discharge; and
  - Promptly **remove or** initiate actions to **stabilize and remediate any accumulations** of oil discharges.

## 4.8.1 Flow-through Process Vessels and Alternative Requirements (continued)

Additionally...

- If facility has a **discharge(s) from flow-through process vessels**
  - More than 1,000 U.S. gallons of oil in a single discharge to navigable waters or adjoining shorelines, or
  - More than 42 U.S. gallons of oil in each of two discharges to navigable waters or adjoining shorelines within any twelve month period.
- Owner/operator must install sized secondary containment and comply with bulk storage container inspection requirements (§112.9(c)(2) and (c)(3))
  - Within six months of discharge

## 4.8.2 Produced Water Containers and Additional Requirements

### **Alternative Requirements** for produced water containers:

- Provide general secondary containment in accordance with §112.7(c), and:
  - Implement on a regular schedule a procedure to separate free-phase oil (or **skimming program**).
  - Regularly scheduled **visual inspection and/or testing** of produced water containers and associated piping and appurtenances for leaks, corrosion, or other conditions that could lead to a discharge as described in §112.1(b).
  - **Corrective action or repairs** to produced water containers and any associated piping as indicated by regularly scheduled visual inspections, tests, or evidence of an oil discharge.
  - Prompt **removal** or initiation of actions to **stabilize and remediate any accumulations of oil** discharges associated with produced water containers

## 4.8.2 Produced Water Containers and Additional Requirements (continued)

- Section 112.3(d)(1)(vi) requires a PE to certify:
  - An oil removal process or procedure for produced water containers is **designed according to good engineering practice** to reduce the accumulation of free-phase oil, and
  - The **process or procedure and frequency** for required inspections, maintenance, and testing have been established
- For self-certified Tier II qualified facilities, a PE must certify procedures for skimming produced water containers (§§112.6(b)(3)(iii) and 112.6(b)(4))

## 4.8.2 Produced Water Containers and Additional Requirements (continued)

Additionally...

- If facility has a **discharge(s) from a produced water container**
  - More than 1,000 U.S. gallons of oil in a single discharge to navigable waters or adjoining shorelines, or
  - More than 42 U.S. gallons of oil in each of two discharges to navigable waters or adjoining shorelines within any twelve month period.
- Owner/operator must install sized secondary containment and comply with bulk storage container inspection requirements (§112.9(c)(2) and (c)(3))
  - Within six months of discharge

# Chapter 5: Oil/Water Separators

# Contents of Chapter 5

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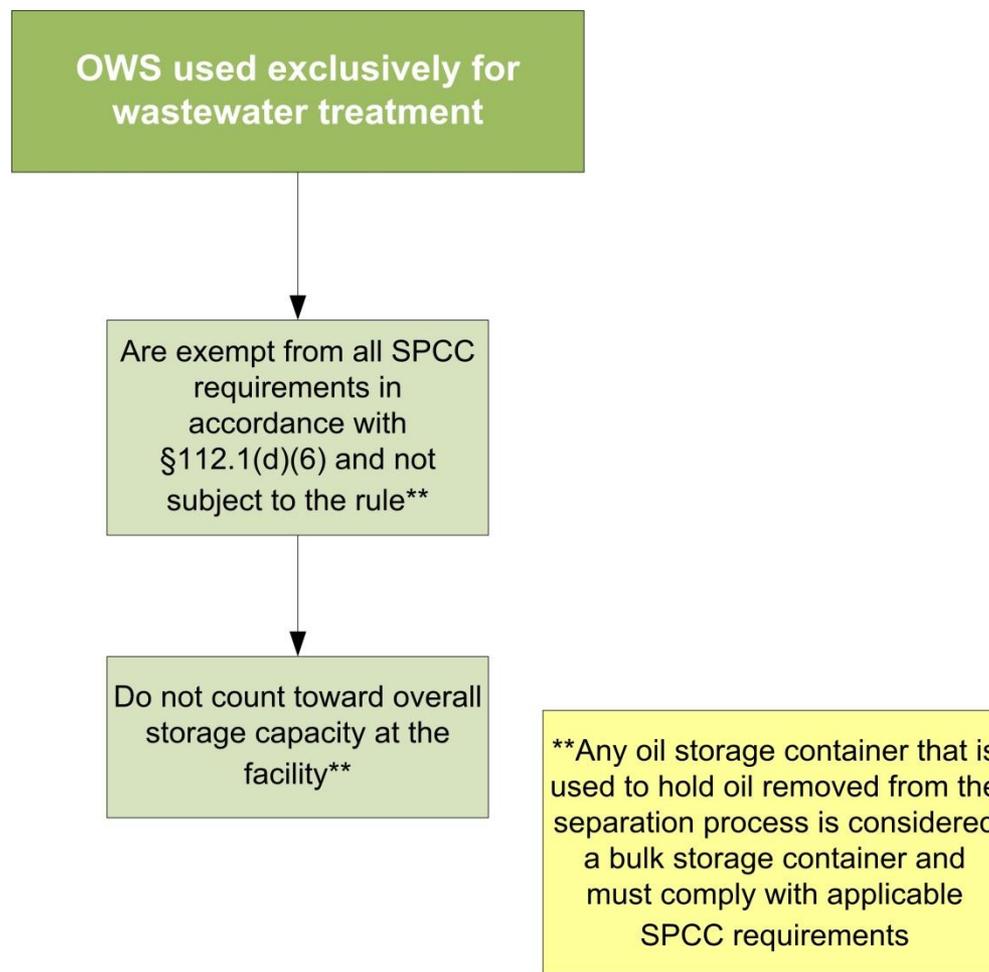
1. Introduction
2. Overview of Provisions Applicable to OWS
3. OWS Used for Wastewater Treatment
4. OWS Used to Meet SPCC Secondary Containment Requirements
5. OWS Used in Oil Production
6. OWS Used in Oil Recovery or Recycling Facilities
7. Documentation Requirements and Role of EPA Inspector

*Sections with changes described in this presentation are shown in green*

## 5.2 Overview of Provisions Applicable to OWS

**Figure 5-1: OWS subject to wastewater treatment exemption**

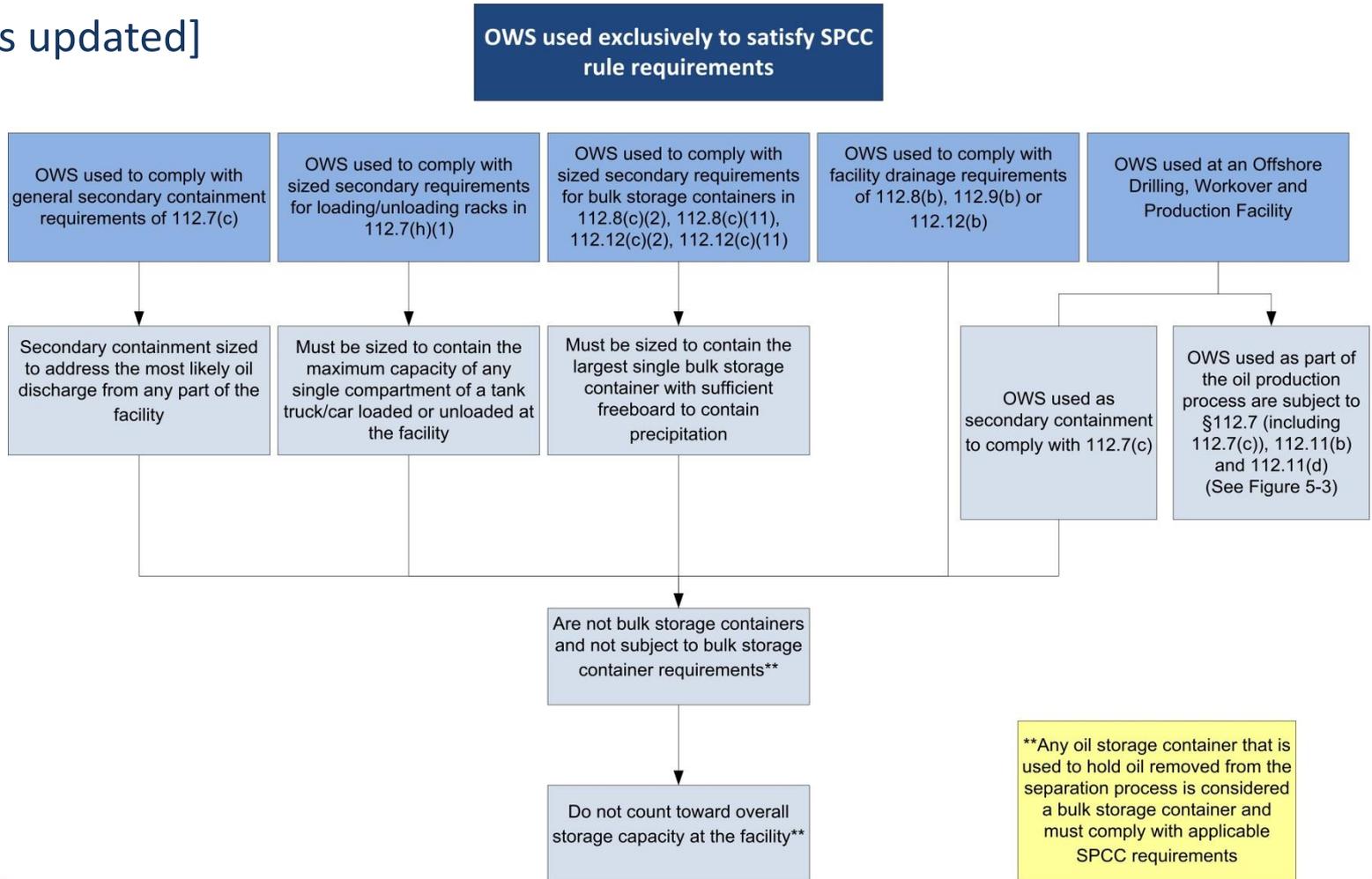
[Figure was updated]



# 5.2 Overview of Provisions Applicable to OWS

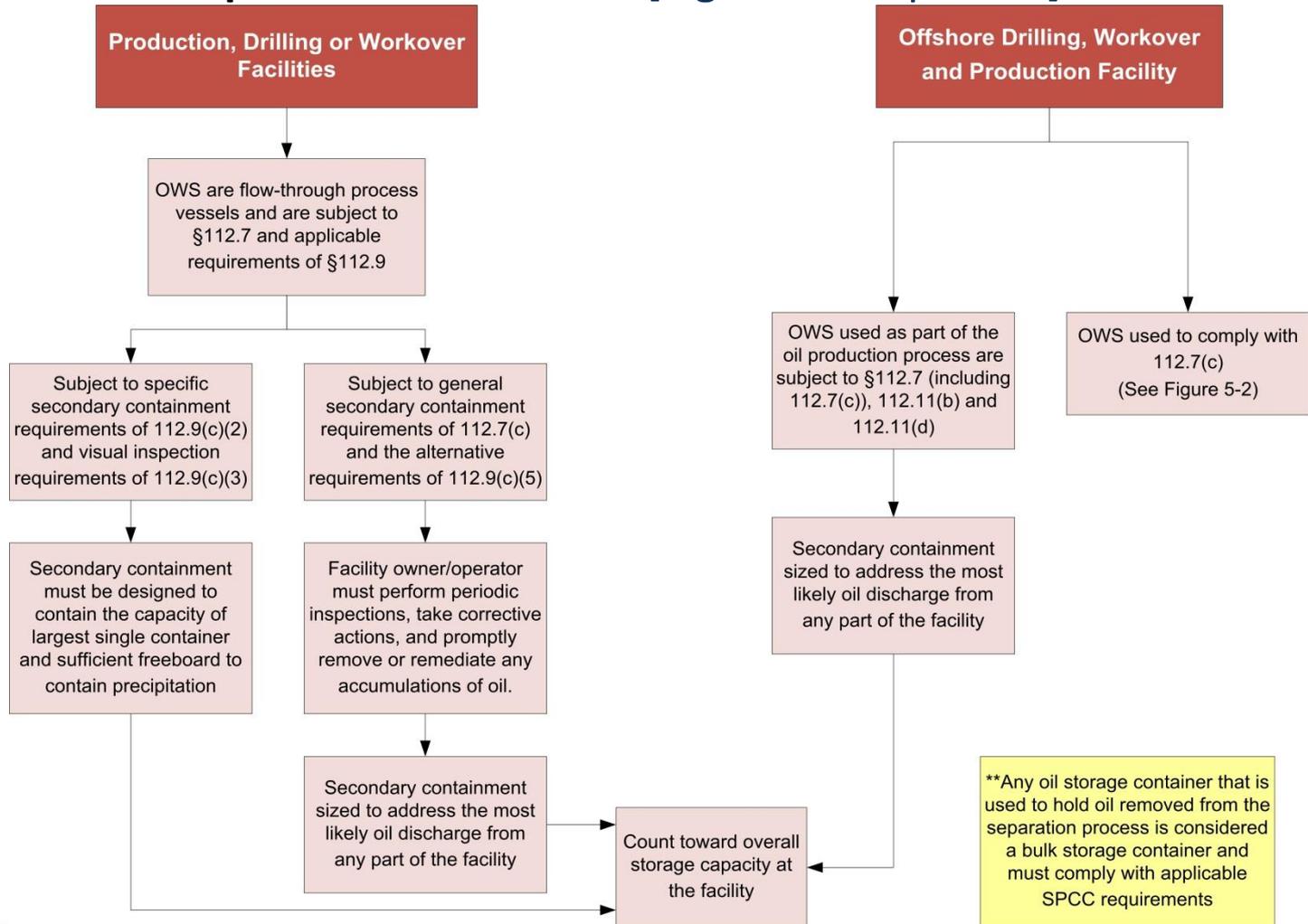
Figure 5-2: OWS used to satisfy SPCC rule requirements.

[Figure was updated]



# 5.2 Overview of Provisions Applicable to OWS

Figure 5-3: OWS at oil production facilities [Figure was updated]



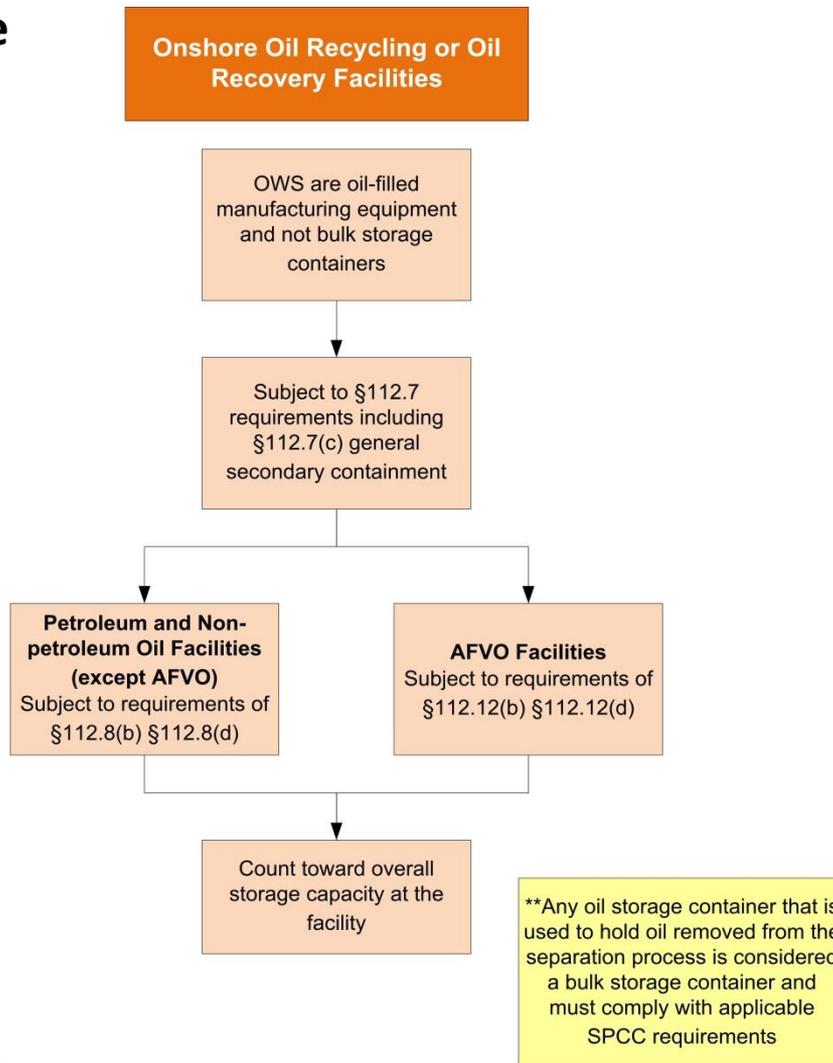
## 5.2.4 Oil Recovery and/or Recycling Facilities

- **This use of OWS now included in guidance.**
- These facilities collect and consolidate production fluids from multiple oil production facilities to recover and treat oil.
- Waste oil recyclers (e.g., motor oil recyclers) and facilities engaged in the recovery and/or recycling of animal fats and vegetable oils (AFVO).
- Operations focus on oil treatment rather than wastewater treatment.
  - Not eligible for the wastewater treatment exemption.

# 5.2 Overview of Provisions Applicable to OWS

**Figure 5-4: OWS at oil recover and/or recycling facilities**

[Figure was updated]



## 5.6 OWS Used in Oil Recovery or Recycling Facilities

- Subject to the provisions of
  - §112.7
  - §112.8(b) and (d) or §112.12(b) and (d)
- §§112.8(c) and 112.12(c) provisions (such as sized containment, integrity testing and overfill prevention) do not apply.
  - OWS at these facilities function as oil-filled **manufacturing equipment** and are not bulk storage containers.

# Chapter 6: Facility Diagram and Description

# Contents of Chapter 6

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1. Introduction
2. General Facility Description
3. Notification Requirements
4. Preparing a Facility Diagram
5. Facility Diagram Examples
6. Review of a Facility Diagram

*Sections described in this presentation are shown in green*

## 6.2 General Facility Description

## 6.3 Notification Requirements

Chapter was expanded to include facility description requirements (new section):

- 6.2.1 Oil Types and Container Capacities
- 6.2.2 Discharge Prevention Methods
- 6.2.3 Drainage Controls
- 6.2.4 Countermeasures
- 6.2.5 Disposal Methods
- 6.2.6 Contact List

Chapter also includes new section on information needed when reporting a discharge to navigable waters.

§112.7(a)(3)

§112.7(a)(4)

## 6.4.3 Requirements for a Facility Diagram

The following items are required by §112.7(a)(3):

- Aboveground storage tanks;
- Underground storage tanks. This includes those that are subject to the SPCC rule or those that are exempt;
- Storage area(s) where mobile or portable containers are located;
- Transfer stations such as oil transfer areas including loading/unloading racks and loading/unloading areas;
- Oil-filled equipment such as hydraulic operating systems or manufacturing equipment;
- Oil-filled electrical transformers, circuit breakers, or other equipment;

[continued...]

## 6.4.3 Requirements for a Facility Diagram (continued)

- Connecting piping;
- Oil pits or ponds (at production facilities);
- Production facility stock tanks, separation equipment and produced water containers;
- Any other bulk storage or oil-filled operational equipment at a production facility; and
- Flowlines and intra-facility gathering lines at a production facility (including exempt intra-facility gathering lines).

*Note that the streamlined requirements for Tier I qualified facilities exclude the requirement for a facility diagram.*

## 6.4.5 Fixed Storage Containers

- The facility diagram must include the location of all containers located in a *fixed* position
  - i.e., those that do not move around the facility
- Where diagrams become complicated due to multiple oil storage containers, owner or operator may choose to include that information separately in an accompanying table or key.

## 6.4.6 Mobile or Portable Containers

- Mobile or portable containers should be marked on the facility diagram in their out-of-service or designated storage area, primary storage areas, or areas where they are most frequently located.
- If containers are stored in one area and operated in another area, both “areas” would be identified on the facility diagram.
  - “Areas” may be marked as general locations on the diagram rather than identify specific discrete locations for each container.

## 6.4.7 Underground Storage Tanks

- Facility diagram must include the location and contents of both exempt underground storage tanks (USTs) and USTs that are subject to SPCC requirements.
  - Completely buried USTs and piping systems that are subject to 40 CFR part 280 or 40 CFR part 281 must be included in the facility diagram and marked “exempt.”
  - Below-grade vaulted tanks that supply emergency diesel generators at a nuclear power generation facility licensed by the Nuclear Regulatory Commission must be included in the facility diagram and marked “exempt.”

## 6.4.8 Intra-facility Gathering Lines

- Facility diagram must include all transfer stations (i.e., any location where oil is transferred) and connecting pipes.
  - Intra-facility gathering lines that are otherwise exempt from SPCC requirements must be included in the facility diagram and marked as “exempt.”

# Chapter 7: Inspection, Evaluation, and Testing

# Contents of Chapter 7

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1. Introduction
2. Inspection, Evaluation, and Testing under the SPCC Rule
3. Role of Industry Standards and Recommended Practices in Meeting SPCC Requirements
4. Baselineing
5. Specific Circumstances, including environmentally equivalent measures (such as a hybrid inspection program)
6. Documentation Requirements and Role of the EPA Inspector
7. Summary of Industry Standards and Regulations

*Sections described in this presentation are shown in green*

## 7.2.1 Summary of Inspection, Evaluation, and Integrity Testing Requirements

- The owner/operator of a qualified facility who self-certifies the SPCC Plan must attest that:
  - The SPCC Plan has been prepared in accordance with **accepted and sound industry practices and standards**;
  - **Procedures for inspections and tests have been established** for the facility in accordance with industry inspection and testing standards or recommended practices; and
  - The Plan will be implemented.
- Qualified facilities must develop and implement a spill prevention program in accordance with good engineering practices:
  - Following regulatory guidance/industry recommended practices,
  - Consulting with tank testing professionals, and
  - Implementing standard design and operation protocols.

## 7.2.2 Regularly Scheduled Integrity Testing and Inspection of Aboveground Bulk Storage Containers

- The SPCC rule has two distinct inspection requirements for bulk storage containers:
  - Test or inspect **each** container for integrity on a regular schedule and whenever material repairs are made; and
  - Frequently inspect the outside of the container for signs of deterioration, discharges, or accumulation of oil inside diked areas.
    - This visual inspection is intended to be a routine walk-around and includes the container's supports and foundations.

## 7.2.2 Regularly Scheduled Integrity Tests or Inspections

- Integrity testing:
  - Determines whether the tank is suitable for continued use until the next formal inspection.
  - Helps plan for routine maintenance and any associated repairs.
- The frequency and type of testing and inspections, and qualifications for personnel performing tests and inspections, must be determined in accordance with applicable industry standards.
  - Frequent external visual inspections can often be completed by trained facility personnel.
  - Regular integrity tests or inspections may involve hiring specialized personnel (as specified by industry standard).

## 7.2.2 Frequent Inspections - Visual

- Rule requires frequent inspections of the outside of the container for signs of deterioration, discharges, or accumulations of oil inside diked areas.
  - Intended to be a routine walk-around and include the container's supports and foundations.
  - The scope and frequency of the inspection is determined by industry standards or according to a site-specific inspection program developed and certified by the Plan preparer.
  - EPA expects the visual inspection to occur on an ongoing routine basis, to be conducted by qualified personnel, and to follow industry standards.

## 7.2.4 Integrity Testing and Inspection for AFVO Bulk Storage Containers

- The integrity testing requirements at §112.12(c)(6)(i), for animal fats and vegetable oil containers are identical to those described above at §112.8(c)(6).
- SPCC rule also provides **alternative requirements** at §112.12(c)(6)(ii).
- For AFVO containers that meet specific criteria, can conduct visual inspections of containers on a regular schedule.

## 7.2.4 Integrity Testing and Inspection for AFVO Bulk Storage Containers (continued)

- Alternative requirement applies to bulk storage containers that:
  1. Are subject to the Food and Drug Administration (FDA) regulations in 21 CFR part 110, *Current Good Manufacturing Practice in Manufacturing, Packing or Holding Human Food*;
  2. Are elevated;
  3. Are made from austenitic stainless steel;
  4. Have no external insulation; and
  5. Are shop-built.
- The Guidance describes each of the five criteria.

## 7.2.5 Regular Leak Testing of Completely Buried Tanks

- Leak testing is often referred to as “tank tightness testing.”
  - Other terms used for these methods include “precision,” “volumetric,” and “nonvolumetric” testing.
- Tank tightness tests include a wide variety of methods.
  - The features of tank tightness testing vary by method.
  - See Guidance for more details.
- The SPCC Plan must describe the method and schedule for testing completely buried tanks.

## 7.2.12 Maintenance of Flowlines and Intra-facility Gathering Lines

SPCC rule requires a maintenance program, including written procedures and other measures to **prevent corrosion or other conditions that could cause a discharge** (discussed earlier in 3.3.5)

- The frequency and type of inspections and/or tests must allow for the implementation of the contingency plan.
  - Any discharges, potential problems will be promptly discovered.
- Scope and frequency of inspections, tests, and preventive maintenance must be established based on industry standards, manufacturer's recommendations, and other sources of good engineering practice.
  - Guidance refers to selected industry standards for methods to test the integrity of piping, such as API 570PP and ASME B31.4.
- There is currently no published industry standard for a flowline or intra-facility gathering line maintenance program
  - A standard may be developed in the future.

## 7.3 Role of Industry Standards and Recommended Practices in Meeting SPCC Requirements

- If the SPCC Plan indicates the use of a standard to comply with a particular rule requirement (e.g., integrity testing), **then it is mandatory to implement the relevant portions of the standard** (i.e., those that address integrity testing of the container).
  - If the standard is more stringent than federal regulations (e.g., for recordkeeping retention requirements), the standard would take precedent.
- Table 7-2 provides a summary of industry standards and recommended practices (RP) for ASTs
  - **Table has been updated**

## 7.4 Baselineing

- If an owner/operator has yet to implement the integrity testing program, the **SPCC Plan should establish and document a schedule** that describes the projected implementation of the integrity testing program for the aboveground bulk storage containers at the facility.
- The owner or operator must then implement the inspection program, in accordance with industry standards
  - Establish appropriate inspection priorities among multiple containers at a facility
  - Higher priority containers may be targeted for inspection before other aboveground containers where the baseline information is known
- Two circumstances described, aboveground bulk storage container:
  - For which the baseline condition is known (7.4.1)
  - For which the baseline condition is not known (7.4.2)

## 7.4.2 Aboveground Bulk Storage Container for Which Baseline Condition is NOT Known

- When no (or only partial) baseline information is available for a container, then **schedule integrity testing in accordance with industry standards as soon as possible.**
- Because the SPCC Plan must be reviewed at the facility every five years (§112.5(b)), the owner or operator of the facility should consider to begin collecting inspection data during the next five year period.
- Two examples provided:
  - Example baselining plan to determine the integrity testing and inspection schedule using **API 653**
  - Example baselining plan to determine the integrity testing and inspection schedule using **STI-SP001**

## 7.5.1 Integrity Testing Scenarios for Shop-built Containers

*Examples revised to reflect regulatory language revisions.*

Scenario 1: **Mobile or Portable Bulk Storage Containers**

Scenario 2: **Single-Use Mobile or Portable Containers**

Scenario 3: **Elevated large shop-built containers**

Scenario 4: **Shop-built containers placed on a liner**

Scenario 5: **Double-walled tanks or containers**

## 7.5.2 Environmental Equivalence Deviation from Integrity Testing and Inspection Requirements

- In December 2008, EPA amended the rule to provide flexibility in complying with the bulk storage container integrity testing requirements.
- The integrity testing requirements are subject to the environmental equivalence provision
  - Given the increased flexibility, **there may be few, if any, instances where a PE would determine that a deviation is appropriate.**
- Examples provided in guidance of situations where a hybrid inspection program is developed:
  - Hybrid Inspection Program Rather than an Applicable Industry Standard
  - Hybrid Inspection Program that Deviates from a Portion of an Industry Standard
  - Hybrid Inspection Program where there is No Applicable Industry Standard
  - AFVO Bulk Storage Containers

§§112.8(c)(6), 112.12(c)(6)

§112.7(a)(2)

## 7.5.3 Suggested Minimum Elements for a PE-Developed Site-Specific Integrity Testing Program

- Also referred to as a hybrid inspection program
- Should include:
  - An evaluation of the principal elements that would cause a tank to fail
  - How the inspection program addresses finding such conditions, or prevents such conditions from continuing to the point of failure
- Guidance provides a list of elements of a hybrid inspection program for:
  - Shop-built tanks
  - Field-erected tanks

## 7.6.1 Evaluating Tank Re-rating Alternatives

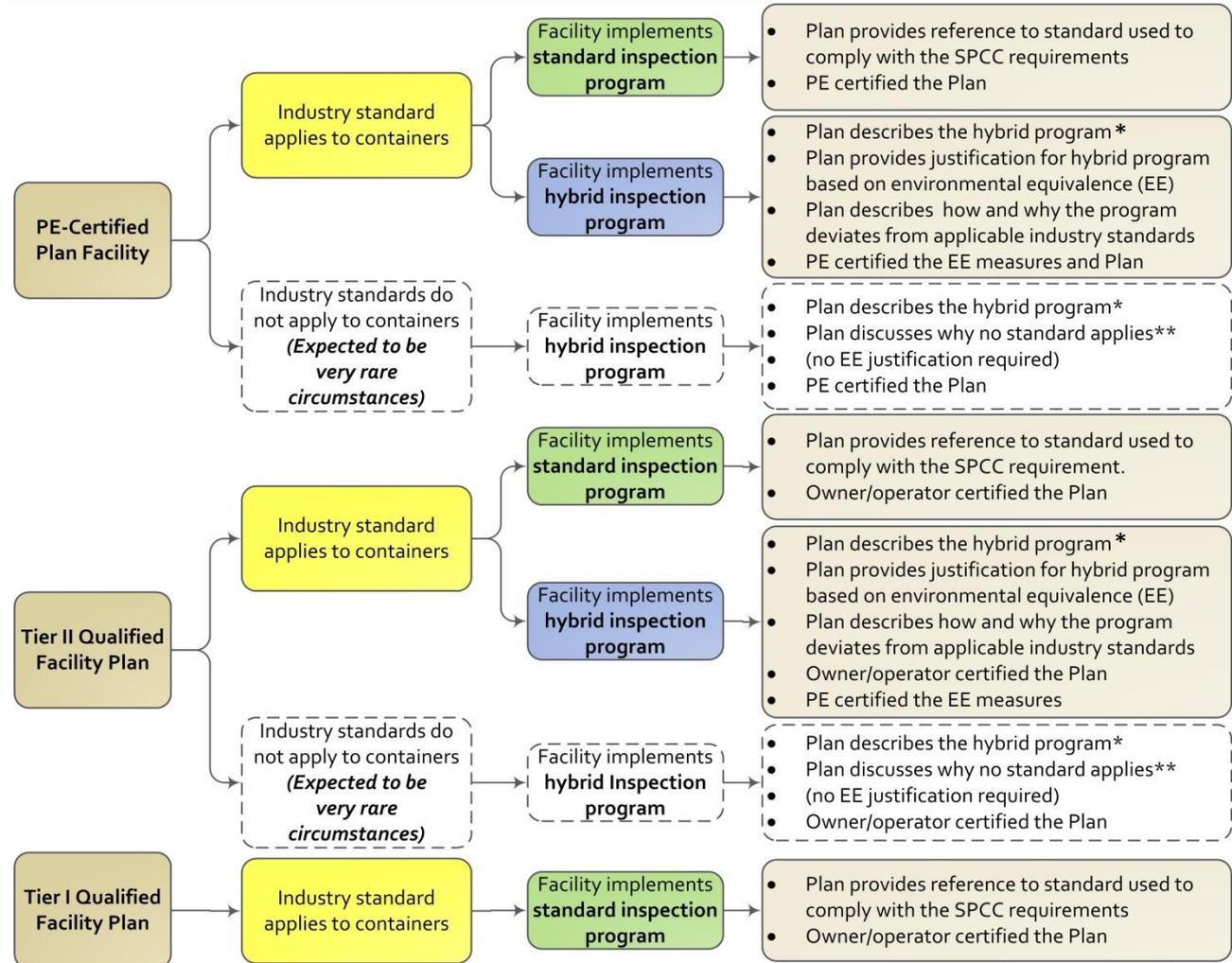
- Tank re-rating (described in section 2.7.3) may have a significant impact on secondary containment capacity, compliance with SPCC rule requirements, and FRP applicability. The EPA inspector must carefully review these alterations.
- The guidance provides **specific questions** that an inspector should consider, to review:
  - Relevant SPCC requirements and Plan documentation
  - Use of relevant industry standards
  - Records
  - Field observations

The EPA inspector should consider the following questions when evaluating whether the SPCC Plan appropriately addresses tank alterations completed at the facility:

- Do all relevant sections of the SPCC Plan reflect the current container capacity and was the technical amendment to the Plan documented and certified by a PE?
  - The certifying PE must sign an amendment to the SPCC Plan. As part of this certification, the PE verifies that the modifications to the tank (e.g., installation of overflow ports or new tank bottom) were done in accordance with industry standards and identifies the standard used (e.g., API 653).
- Have operating procedures that may be affected by the alteration been updated in the Plan to reflect the current tank capacity?

# 7.6.2 Evaluating Inspection, Evaluation and Testing Programs

**Figure 7-5.** Summary of integrity testing and inspection program documentation for bulk storage containers, by type of SPCC Plan and standard applicability case



\* Plan describes how the hybrid inspection program meets the minimal recommended elements described in Section 7.5.3.

\*\* EPA Inspector should review carefully to confirm that industry standards do not apply

## 7.7 Summary of Industry Standards and Regulations

- The scope of a standard will describe the type of tanks that are subject to the standard.
- Section 7.7 provides a description of the key elements of **pertinent industry inspection standards**.
  - **This section was updated and expanded.**
  - Revised to refer to the most recent (current) version of each standard.
- Additional Standard/Recommended Practice summarized:
  - “STI Standard SP031 - Standard for Repair of Shop Fabricated Aboveground Tanks for Storage of Combustible & Flammable Liquids” (Section 7.7.3)
  - “RP FTPI 2007-1 Recommended Practice for the In-service Inspections of Aboveground Atmospheric Fiberglass Reinforced Plastic Tanks and Vessels” (Section 7.7.11)

# Appendices

# Appendix C: SPCC Rule Amendments

- This appendix has been revised into a chart summarizing how SPCC rule provisions have been revised since the rule was first promulgated.
- Amendments published in 2002, 2006, 2008, 2009, and 2011 are included.

Rule Provision	Description	2002	2006	2008	2009
Preamble Clarifications	Clarified that the definition of "mobile refueler" includes nurse tanks			x	
	Clarified definition of "permanently closed"			x	
	Clarified §112.8 versus §112.9 applicability			x	
	Clarified drilling and workover activities are not subject to §112.9			x	
	Clarified applicability of the rule to wind turbines			x	
	Clarified how manmade structures can affect rule applicability and how they can be considered to comply with rule requirements			x	

# Appendix H: Other Policy Documents

**This Appendix has been updated to include several additional policy documents. Additions are:**

- Memorandum, *Use of Alternative Secondary Containment Measures at Facilities Regulated under the Oil Pollution Prevention Regulation (40 CFR Part 112)*, OSWER 9360.8-37, Don R. Clay, OSWER Assistant Administrator, April 29, 1992.
- **EPA Liner Study: Report to Congress, Section 4113(a) of the Oil Pollution Act of 1990. May 1996.**
- David Lopez, Letter to Mr. Chris Early of Safety-Kleen Corporation, July 14, 2000.
- Stephen F. Heare, Letter to Melissa Young of Petroleum Marketers Association of America, 2001.
- Memorandum, *Use of Alternative Secondary Containment Measures at Facilities Regulated under the Oil Pollution Prevention Regulation (40 CFR Part 112)*, OSWER 9360.8-38, Marianne Lamont Horinko, OSWER Assistant Administrator, August 9, 2002.
- **Advance Notice of Proposed Rulemaking on the Clean Water Act Regulatory Definition of “Waters of the United States”, 68 FR 1991, January 15, 2003.**
- Marianne Horinko, Letter to Daniel Gilligan of Petroleum Marketers Association of America, May 25, 2004.
- **Susan Parker Bodine, Letter to Brian Jennings of American Coalition for Ethanol, November 7, 2006.**

*Continued...*

# Appendix H: Other Policy Documents

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This Appendix has been updated to include several additional policy documents.

**Additions are [continued]:**

- R. Craig Matthiessen, Letter to Roger Claff, December 10, 2010.
- EPA Jurisdiction at Complexes, August 2013.
- FRP Rule Attachment C-I: *Flowchart of Criteria for Substantial Harm*, 40 CFR Ch. I, Pt. 112, App. C.
- FRP Rule Attachment C-II: *Calculation of the Planning Distance*, 40 CFR Ch. I, Pt. 112, App. C.
- Example secondary containment calculations (Construct New Secondary Containment; Multiple Horizontal Cylindrical Tanks Inside a Rectangular or Square Dike or Berm; Rectangular or Square Remote Impoundment Structure; Single Vertical Cylindrical Tank Inside a Rectangular or Square Dike or Berm), July 2011.
- Secondary containment worksheets (Construct New Secondary Containment; Multiple Horizontal Cylindrical Tanks Inside a Rectangular or Square Dike or Berm; Rectangular or Square Remote Impoundment Structure; Single Vertical Cylindrical Tank Inside a Rectangular or Square Dike or Berm), July 2011.

# Questions

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- **Superfund, TRI, EPCRA, RMP & Oil Information Center**
- The [Superfund, TRI, EPCRA, RMP & Oil Information Center](#) (also referred to as “the Call Center”) is a publicly accessible service that provides up-to-date information on several EPA programs.
- 800-424-9346 or TDD 800-553-7672  
703-412-9810 or TDD 703-412-3323 in the Washington, DC area  
Hours of Operation:  
Monday - Friday: 10:00 AM - 5:00 PM Eastern Time  
Closed Federal Holidays
- Mark Howard [howard.markw@epa.gov](mailto:howard.markw@epa.gov)
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