USEPA Introduction to Spill Prevention, Control, and Countermeasures (SPCC) Regulation Webinar for Tribes

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(USEPA SPCC SME)

Office of Emergency Management - HQ

September 29, 2021

USEPA WEBINAR

William “Nick” Nichols
EPA OEM Tribal and EJ Coordinator

- Began EPA career in 1996
- Expertise in oil spill mitigation
- Nick frequently works with the ITEP Tribal Waste and Response Committee that has brought tribe’s concerns about oil storage facilities to OEM’s attention.
- This webinar and future events are one way EPA hopes to build capacity for tribes to understand oil spill prevention regs and how tribes can assist EPA in preventing spills from facilities on their lands.

Agenda (EST)

1:00 pm – 1:55 – SPCC Overview

2:00 pm – 2:55 pm – SPCC Overview

3:00 pm – 3:50 pm – SPCC Overview & inspections/reporting

3:50 pm – 4:00 pm – Open Q&A –

Please feel free to take a break as needed

Please feel free to ask questions using the chat box or during the open Q&A session

There is no bad question…

FIVE MINUTE BREAKS ON THE HOUR

A Quick Chat Box Poll

What role do you play?

Protecting Our Waters by Preventing Oil Discharges to WOTUS

Agenda

- Part 1: SPCC detailed overview
  - Applicability
  - Administrative
  - General requirements
  - Specific requirements
    - Non production
    - Production, drilling and workover
- Part 2: Federal oil discharge (spill) reporting requirements
- Part 3: EPA inspection process
- Part 4: Findings from the field

Legal Disclaimer

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 September 2021. This presentation may be revised periodically without public notice.

Part 1: Detailed SPCC Rule Overview

Oil Regulations

- 40 CFR part 112 - Oil Pollution Prevention regulation
  - Specifies requirements for prevention of, preparedness for, and response to oil discharges
    - Spill Prevention, Control, and Countermeasure (SPCC)
  - Includes requirements for Facility Response Plans (FRPs)
- 40 CFR part 110 – Discharge of Oil (sheen rule)
  - Prohibition of oil discharge
  - Reporting requirements
  - Establishes harmful quantity

Purpose of SPCC Rule

- Requirements help prevent oil discharges from reaching navigable waters or adjoining shorelines.
- Certain facilities are required to **develop SPCC Plans** that describe equipment, workforce, procedures, and training to prevent, control, and provide adequate countermeasures to a discharge of oil.
- Promulgated under the authority of the Clean Water Act (CWA) §311(j)(1)(C).

What does the SPCC rule require?

- Requires facilities to develop and implement a **site-specific SPCC Plan** to address:
  - Containment and procedures to *prevent* oil discharge (tank testing);
  - *Control* measures to keep an oil discharge from entering navigable waters (containment); and
  - *Countermeasures* to contain, clean up, and mitigate any oil discharge that affects navigable waters (spill response measures).
- Performance-based rule designed to implement the Congressional policy of “no oil discharges” to waters of the United States

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.
- New production facilities have six months to develop and implement their SPCC Plan
- **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.

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.

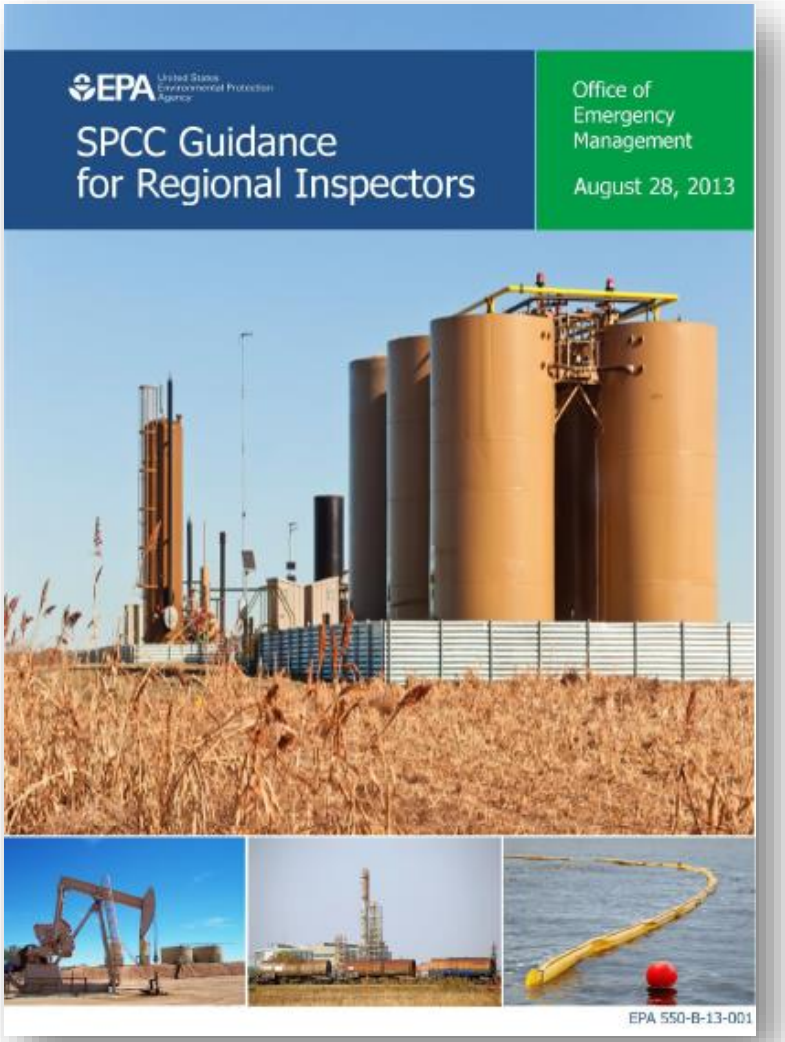
§112.3

SPCC Guidance

- 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****.*



SPCC Rule Applicability

The SPCC rule applies to a facility that meets the following criteria:

1. **Drills, produces, gathers, stores, processes, refines, transfers, distributes, uses**, or **consumes**
2. **oil** and **oil products**; and
3. Is **non-transportation-related** (i.e. facility is not exclusively covered by DOI or DOT); and
4. Can reasonably be expected to discharge oil in **quantities that may be harmful** into or upon the **navigable waters** of the U.S. or adjoining shorelines; and
5. Meets **capacity thresholds**
   - Aboveground storage > 1,320 gallons; or
   - Completely buried storage > 42,000 gallons

§112.1

Changes to "Facility" Definition

- The 2008 Amendments revise the definition of facility to:
  - clarify that the definition of facility alone governs SPCC applicability
  - clarify that non-contiguous parcels may be considered separate facilities
  - include terms "property", "parcel", and "lease" and to clarify what can be used in determining facility boundaries
    - These are terms that are familiar to production and farm sectors
  - add the qualifier "oil" before the term "waste treatment"

2.4.1 Definition of Facility

- Definition of “facility” was amended in 2008.
- The definition governs the overall applicability of 40 CFR part 112, and is used to determine a facility’s boundaries to determine if the facility is subject to SPCC and/or FRP.
- Definition now clarifies that contiguous or non-contiguous buildings, properties, parcels, leases, structures, installations, pipes, or pipelines under the ownership or operation of the same person may be considered separate facilities.

§112.2

Facility means any mobile or fixed, onshore or offshore building, property, parcel, lease, structure, installation, equipment, pipe, or pipeline (other than a vessel or a public vessel) used in oil well drilling operations, oil production, oil refining, oil storage, oil gathering, oil processing, oil transfer, oil distribution, and oil waste treatment, or in which oil is used, as described in Appendix A to this part. The boundaries of a facility depend on several site-specific factors, including but not limited to, the ownership or operation of buildings, structures, and equipment on the same site and types of activity at the site. Contiguous or non-contiguous buildings, properties, parcels, leases, structures, installations, pipes, or pipelines under the ownership or operation of the same person may be considered separate facilities. Only this definition governs whether a facility is subject to this part.

Note: The above text is an excerpt of the SPCC rule. Refer to 40 CFR part 112 for the full text of the rule.

§112.2

2.4.3 Definition of Production Facility

- A production facility is a type of "facility."
- "Production facility" is separately defined in §112.2.
  - The definition is narrower than the definition of "facility" and is used to determine which sections of the rule may apply at a particular facility.
- A production facility is involved with producing or extracting petroleum crude oil from a reservoir, and not any other type of oil production, such as animal fat and vegetable oil (AFVO) production.

§112.2

Production facility means all structures (including but not limited to wells, platforms, or storage facilities), piping (including but not limited to flowlines or intra-facility gathering lines), or equipment (including but not limited to workover equipment, separation equipment, or auxiliary non-transportation-related equipment) used in the production, extraction, recovery, lifting, stabilization, separation or treating of oil (including condensate) and associated storage or measurement and is located in an oil or gas field, at a facility. This definition governs whether such structures, piping, or equipment are subject to a specific section of this part.

Note: The above text is an excerpt of the SPCC rule. Refer to 40 CFR part 112 for the full text of the rule.

§112.2

2.4.4 Drilling and Workover Facilities

- Considered mobile facilities.
  - Typically develop an SPCC Plan under §112.3(c).
- Rule requirements apply:
  - Administrative and general requirements (§§112.1 through 112.7)
  - Specific requirements in §112.10 (for onshore facilities) or §112.11 (for offshore facilities)
- When drilling and/or workover activities cease and production has begun, the facility is considered an oil production facility.
- Workover activities are a distinct operation and may be conducted by a separate owner or operator.

§112.3(c)

2.4.5 Definition of Farm

- The definition of “farm” is narrower than the definition of “facility.”
- Promulgated in 2006 to identify facilities subject to a compliance date extension.
- The definition of “facility” governs overall rule applicability.
  - Used to determine whether the farmer is subject to the rule
  - Used to determine the scope of his or her facility

§112.2

Farm means a facility on a tract of land devoted to the production of crops or raising of animals, including fish, which produced and sold, or normally would have produced and sold, $1,000 or more of agricultural products during a year.

Note: The above text is an excerpt of the SPCC rule. Refer to 40 CFR part 112 for the full text of the rule.

§112.2

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.

2.4.7 Natural Gas Facilities and Pipelines

- Containers storing condensate must be included in a natural gas facility's total oil storage capacity calculation.
  - Ancillary oil storage in other areas of the facility, such as fuel or lubrication oil, and oil-filled equipment, is also counted.
- Equipment that compresses or pumps the natural gas is not regulated
  - unless there is oil-filled operational equipment that meets the applicability requirements of the rule.
- The Guidance provides **five example scenarios** of facilities that are involved in producing or treating natural gas and how the SPCC rule would apply for each.

Applicability Criterion #1

1

Drills, produces, gathers, stores, processes, refines, transfers, distributes, uses, or consumes oil and oil products

Drilling

Criterion #1: Oil-Related Activities


Gathering
AP

Criterion #1: Oil-Related Activities

Processing

Refining

Transferring

Distributing

Using

Consuming

Applicability Criterion #2

2

Drills, produces, gathers, stores, processes, refines, transfers, distributes, uses, or consumes **oil and oil products**

2.2 Definition of Oil

- The SPCC rule applies to the owners and operators of facilities with the potential to discharge oil in quantities that may be harmful to navigable waters or adjoining shorelines.
- The definition of oil at §112.2 has not changed.
- This section was reorganized and expanded to provide information on the applicability of various substances.

§112.2

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.

Note: The above text is an excerpt of the SPCC rule. Refer to 40 CFR part 112 for the full text of the rule.

§112.2

2.2.1 Petroleum Oils & Non-Petroleum Oils

- SPCC rule applies to both petroleum oils and non-petroleum oils. Terms are defined in §112.2.
  - **Petroleum oils** include crude and refined petroleum products, asphalt, gasoline, fuel oils, mineral oils, naphtha, sludge, oil refuse, and oil mixed with wastes other than dredged spoil.
  - **Non-petroleum oils** and greases include coal tar, creosote, silicon fluids, pine oil, turpentine, and tall oils.
- Both petroleum and non-petroleum oils can enter all parts of an aquatic system and adjacent shoreline.
- Similar methods of containment, removal, and cleanup are used to reduce the harm created by spills of both types of oils.

§112.2

2.2.2 Synthetic Oils

- Used in a wide range of applications, including:
  - as heat transfer fluids
  - engine fluids
  - hydraulic and transmission fluids
  - metalworking fluids
  - dielectric fluids
  - compressor lubricants
  - turbine lubricants
- Created by chemical synthesis rather than by refining petroleum crude or extracting from plant seeds.
- Not defined in §112.2

2.2.3 Animal Fats & Vegetable Oils

- **Animal fats** include fats, oils, and greases of animal (including fish or marine mammal) origin.
  - Examples: lard, tallow, cod liver oil, whale oil
- **Vegetable oils** include oils of vegetable origin, including oils from seeds, nuts, fruits, and kernels.
  - Examples: corn oil, rapeseed oil (canola oil), coconut oil, palm oil, soy bean oil, sunflower seed oil, cottonseed oil, and peanut oil.
- Terms are defined in §112.2.

Guidance document change reflecting other information added

§112.2

Applicability Criterion #3

3

Facility is non-transportation-related.

(It is not exclusively regulated by DOI or DOT.)

2.5 "Non-transportation-Related"

- Facilities are divided into three categories:
  - Transportation-related facilities (DOT)
  - Non-transportation-related facilities (EPA)
  - Complexes (dual jurisdiction)
- EPA's jurisdictional authority is detailed in a series of Executive Orders and Memoranda of Understanding
- The guidance contains scenarios that have raised jurisdictional questions
- Inspectors should evaluate the intended activity carefully because the determination of jurisdiction is not always straightforward.

Non-Transportation Related Facilities

(EPA Jurisdiction)

- Fixed or mobile onshore and offshore oil drilling and production facilities
- Oil refining and storage facilities
- Industrial, commercial, agricultural, and public facilities that use and store oil
- Waste treatment facilities
- Loading racks, transfer hoses, loading arms, and other equipment used to transfer oil in bulk to or from highway vehicles or railroad cars
- Highway vehicles, railroad cars, and pipelines used to transport oil within confines of non-transportation-related facility

Transportation Related Facilities
(DOT Jurisdiction)

- Onshore and offshore terminal facilities, including transfer hoses, loading arms, and other equipment used to transfer oil in bulk to or from a vessel, including storage tanks and appurtenances for the reception of oily ballast water or tank washings from vessels
- Transfer hoses, loading arms, and other equipment appurtenant to a non-transportation-related facility used to transfer oil in bulk to or from a vessel
- Interstate and intrastate onshore and offshore pipeline systems
- Highway vehicles and railroad cars that are used for the transport of oil

Complexes
(EPA and DOT Jurisdiction)

- A facility with both transportation-related and non-transportation-related activities is a “complex facility” and is subject to the dual jurisdiction of EPA and DOT

Applicability Criterion #4

4

Can reasonably be expected to **discharge oil in quantities that may be harmful** into or upon the *navigable waters* of the U.S. or adjoining shorelines

Definition of "Discharge"
(at §112.2)

- Includes any spilling, leaking, pumping, pouring, emitting, emptying, or dumping of any amount of oil *no matter where it occurs*
  - Excludes certain discharges associated with §402 of the CWA and §13 of the River and Harbor Act of 1899

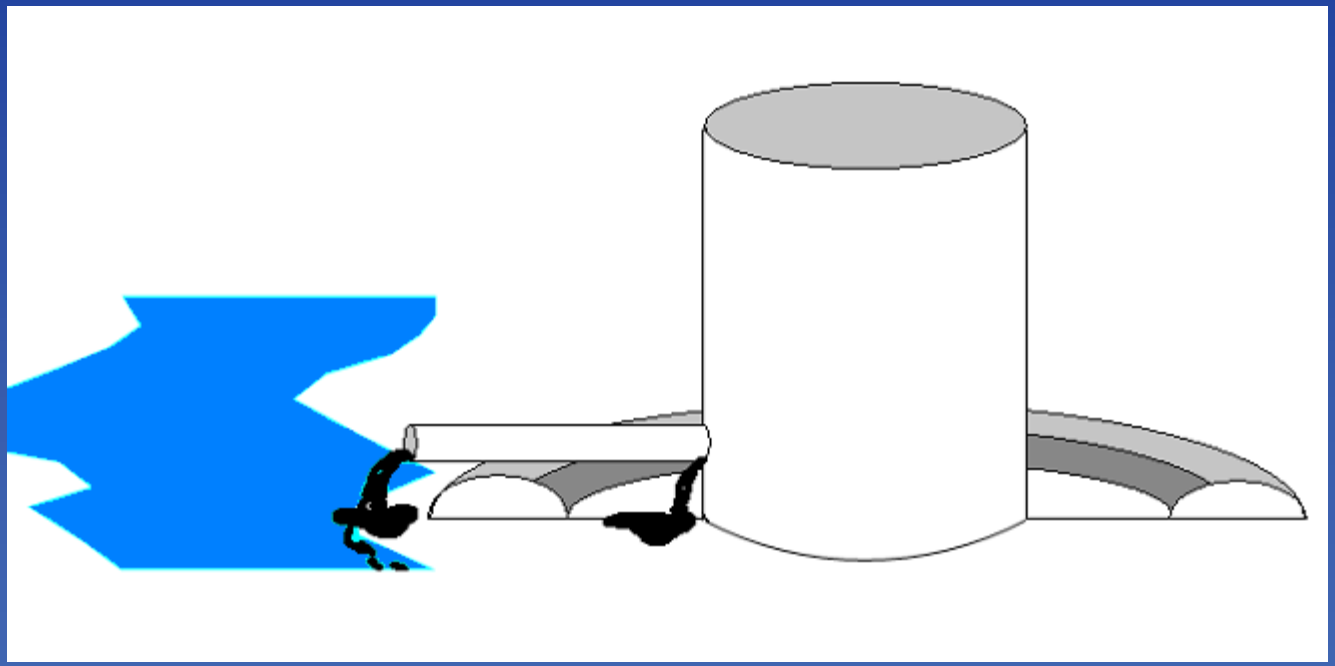
Discharge as described in §112.1(b)

- Refers to quantities that may be harmful, as described in 40 CFR part 110 (“sheen rule”)
  - Discharge violates applicable water quality standards; or
  - Discharge causes a film or sheen upon or discoloration of the surface of the water or adjoining shorelines or causes a sludge or emulsion to be deposited beneath the surface of the water or upon the adjoining shorelines
- Includes discharges harmful not only to public health or welfare, but also to the environment

…so what's the difference?

- A discharge as described in §112.1(b) is a violation of Section 311 of the Clean Water Act
  - Reportable to NRC and may trigger SPCC reporting requirements
  - May impact ability to self certify an SPCC plan
- A §112.2 discharge that does not impact a navigable water or adjoining shoreline (e.g., a spill into a dike or other secondary containment structure) is not a violation of Section 311 of the Clean Water Act
  - Not reportable to the NRC under the 40 CR part 110
  - Mat trigger certain SPCC requirements to remove oil
  - However may be a violation or reportable under State or local regulatory requirements

Discharge Types



“Reasonable Expectation” of Discharge

- This determination must be based solely upon consideration of the geographical and locational aspects of the facility
- Must exclude manmade features such as dikes, equipment or other features which would restrain, hinder, contain or otherwise prevent a discharge as described in §112.1(b)

“Reasonable Expectation” of Discharge

- Factors an owner operator may consider (SPCC Guidance):
  - Whether a past discharge of oil reached a navigable water or adjoining shoreline;
  - Whether the facility is adjacent to navigable waters;
  - On-site conduits, such as sewer lines, storm sewers, certain underground features (e.g., power or cable lines, or groundwater);
  - Unique geological or geographic features;
  - Whether the facility is near a watercourse and intervening natural drainage;
  - Whether precipitation runoff could transport oil into navigable waters; and
  - The quantity and nature of oil stored.

Applicability Criterion #5

5

Meets storage capacity thresholds

Definition of Storage Capacity

- *Storage capacity* of a container means the shell capacity of the container.
- If a certain portion of a container is incapable of storing oil because of its integral design, then the storage capacity is the volume the container might hold
- The shell capacity is the rated design capacity rather than the working/operational capacity

2.7.2 Definition of Storage Capacity

- Industry standards for certain storage tanks define the storage capacity of the tank as the physical capacity of the shell to contain liquid.
- Many aboveground field erected tanks have cone-down bottoms; this volume is included in the overall storage capacity of the tank.
- Devices such as hydraulic overfill valves or high level alarms or procedures are not a means of limiting the capacity of a storage container.

§112.2

Storage capacity of a container means the shell capacity of the container.

Note: The above text is an excerpt of the SPCC rule. Refer to 40 CFR part 112 for the full text of the rule.

§112.2

Guidance document change reflecting other information added

Thresholds

- SPCC rule applies to a facility with greater than:
  - 1,320 gallons of aggregate aboveground oil storage capacity, or
  - 42,000 gallons of completely buried oil storage capacity

Permanently Closed

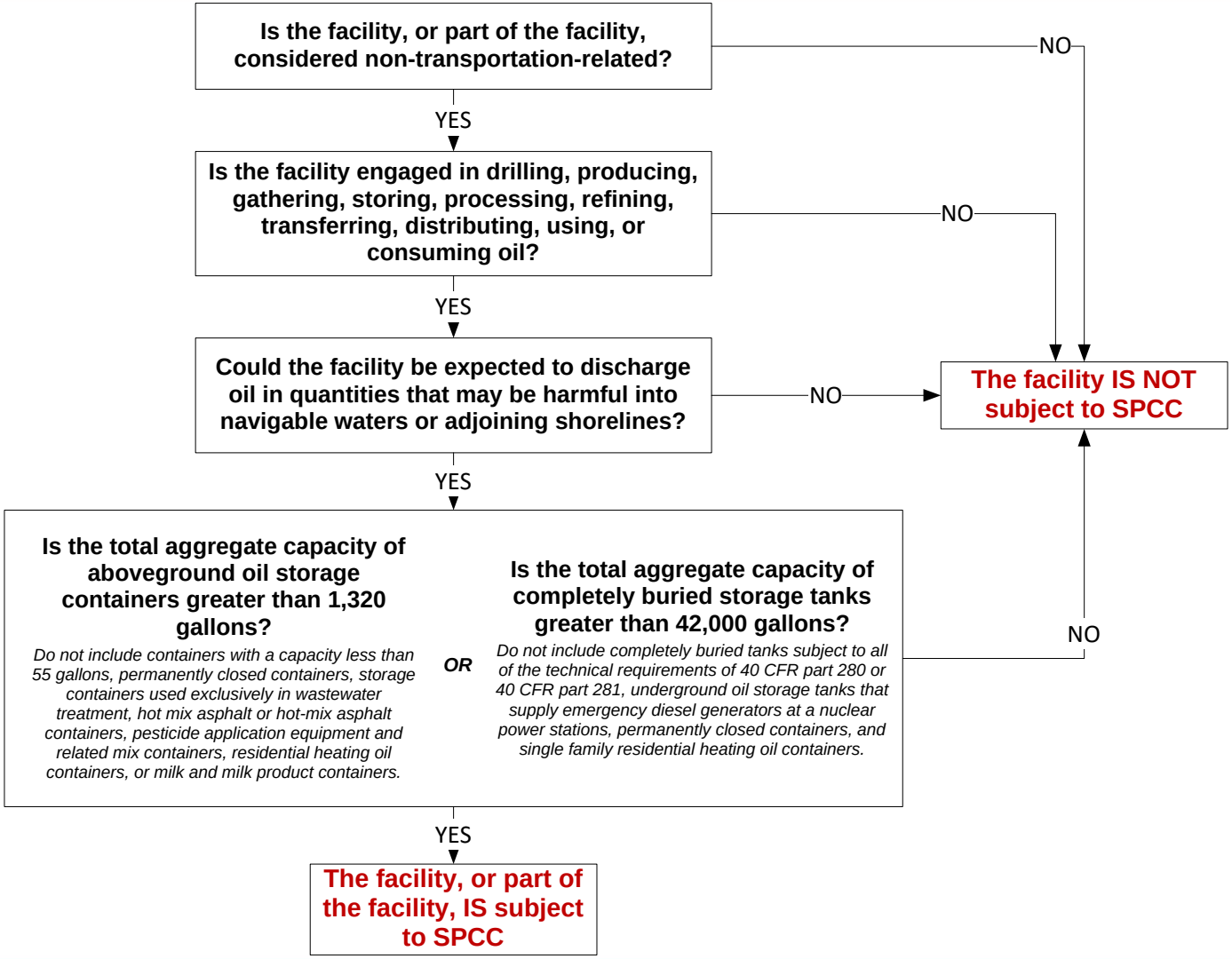
- SPCC rule exempts any oil storage container that is permanently closed.
- *Permanently closed* means any container or facility for which:
  - (1) All liquid and sludge has been removed from each container and connecting line; and
  - (2) All connecting lines and piping have been disconnected from the 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 permanently closed and noting the date of closure.
- Definition of “permanently closed” does not require a container to be removed from a facility.
  - Permanently closed containers may be brought back into use as needed for variations in production rates and economic conditions.
- Permanent closure requirements under the SPCC rule are separate and distinct from the closure requirements in regulations promulgated under Subtitle C of RCRA.
- Preamble regarding new containers never containing oil

Exemptions to SPCC Applicability

- Current exemptions to the SPCC rule include
  - Underground storage tanks subject to UST tech requirements
  - Wastewater treatment facilities
  - Motive power containers
- Exemptions in the 2008 amendments include
  - Hot-mix asphalt (HMA)
  - Residential heating oil containers (ASTs and USTs)
  - Pesticide application equipment
  - USTs at nuclear power generation facilities
  - Intra-facility gathering lines subject to the requirements of 49 CFR part 192 or 195

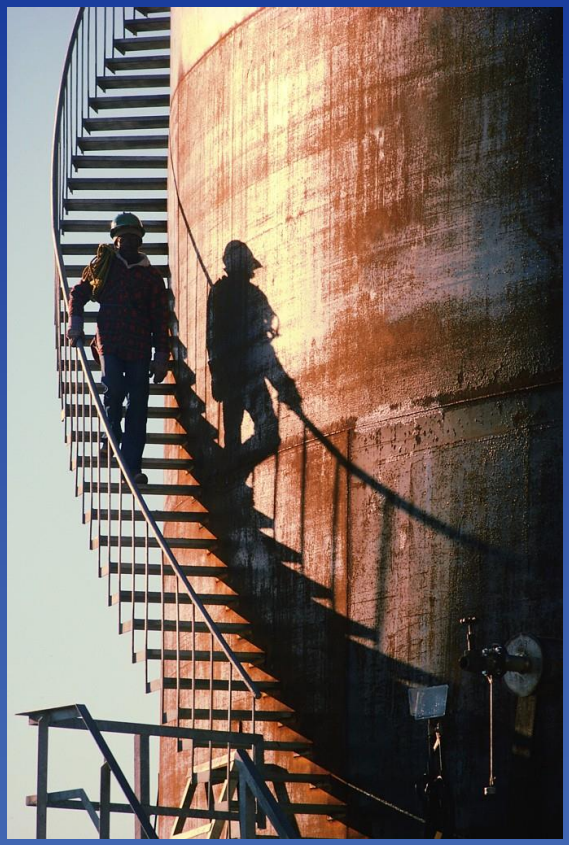
§112.1(d)

SPCC Applicability Flowchart



§112.3 Prepare and Implement a Plan

- The facility owner/ operator must prepare an SPCC Plan:
  - In writing
  - In accordance with §112.7 and any other applicable sections of 40 CFR part 112
- Compliance dates to prepare, amend, and implement an SPCC Plan



Mobile Facilities

- Onshore and offshore mobile facilities must prepare, implement, and maintain a Plan as required by the rule
  - Amend and implement a Plan, if necessary to ensure compliance with the rule, on or before July 1, 2009
  - Can be a general Plan; a new Plan is not required each time a facility moves to a new site.

Professional Engineer Certification

- A licensed PE must review and certify a Plan and technical amendments
- The certification does not relieve the owner/operator of his duty to prepare and fully implement a Plan
- Qualified facilities may opt to self-certify Plans in lieu of PE-certification.
  - This will be discussed during the overview of 112.6
  - Some states do not allow self-certification of SPCC Plans

PE Attestation

- In the certification, the PE attests that:
  - He is familiar with the rule requirements
  - He or his agent visited and examined the facility
  - The Plan has been prepared in accordance with good engineering practice, including the consideration of applicable industry standards, and with the requirements of 40 CFR part 112
  - Procedures for required inspections and testing have been established
  - The Plan is adequate for the facility
  - If applicable, for a produced water container subject to §112.9(c)(6), any procedure to minimize the amount of free-phase oil is designed to reduce the accumulation of free-phase oil and the procedures and frequency for required inspections, maintenance and testing have been established and are described in the Plan.

PE Attestation (continued)

- PEs do not need to be licensed in the state in which the facility is located for Federal compliance
- State's may have laws that require a PE to be licensed in the state and may prohibit self certification
- PEs can be employees of the facility

Plan Location

- Maintain a complete copy of the Plan:
  - At the facility if it is attended at least 4 hours per day
  - At the nearest field office if the facility is attended for less than 4 hours per day
- Have the Plan available for on-site review during normal working hours

Extension Requests

- Regional Administrator (RA) may authorize extension to prepare, implement, and/or amend Plan if facility cannot fully comply with requirements
  - Non-availability of qualified personnel
  - Delays in construction or equipment delivery
- Owner/operator must submit a written extension request
  - Cause
  - Actions taken and planned to minimize delay
  - Proposed time schedule

§112.4 Amendment of SPCC Plan by Regional Administrator

Notify Regional Administrator

- Submit specific information to the RA if the facility discharged:
  - More than 1,000 gallons of oil in a single discharge as described in §112.1(b)
  - More than 42 gallons of oil in each of two discharges as described in §112.1(b) within a 12-month period
  - The gallon amount (42 or 1,000) refers to the amount of oil that reaches navigable waters which is reportable under 40 CFR 110
- No action necessary until one of the above triggering events
- Still required to report to NRC in accordance with 40 CFR part 110
- More to information presented in part 2 of webinar

Plan Amendment by RA

- Amend Plan as required by the RA
  - To meet the requirements of the rule
  - Prevent and contain discharges from facility

- Decision based on:
  - Review of information facility submits
  - Review of information from state agency
  - On-site review of Plan

§112.5 Amendment of SPCC Plan by Owners or Operators

- For changes in facility design, construction, operation, or maintenance that materially affect the potential for a discharge as described in §112.1(b)
  - Commissioning and decommissioning containers
  - Replacement, reconstruction, or movement of containers
  - Reconstruction, replacement, or installation of piping systems
  - Construction or demolition that might alter secondary containment structures
  - Changes in product or service
  - Revision of operating or maintenance procedures
- Amend within 6 months; implement ASAP, but no later than 6 months after amendment

Plan Review

- Complete review and evaluation of Plan
  - Once every 5 years from the date facility becomes subject to the rule
  - If a facility was in operation on or before 8/16/2002, five years from the date of your last review required by the rule
  - Does not always require a PE
- Amend Plan within 6 months to include more effective prevention and control technology
- Implement ASAP, but no later than 6 months of amendment

Documenting Plan Review

- Must document Plan review and evaluation
- Sign statement at beginning or end of Plan or in a log or an appendix
  - "I have completed review and evaluation of the SPCC Plan for (name of facility) on (date), and will (will not) amend the Plan as a result."
- PE must certify any technical amendment to Plan
  - Qualified Facilities exception

§112.6 Qualified Facility Plan Requirements

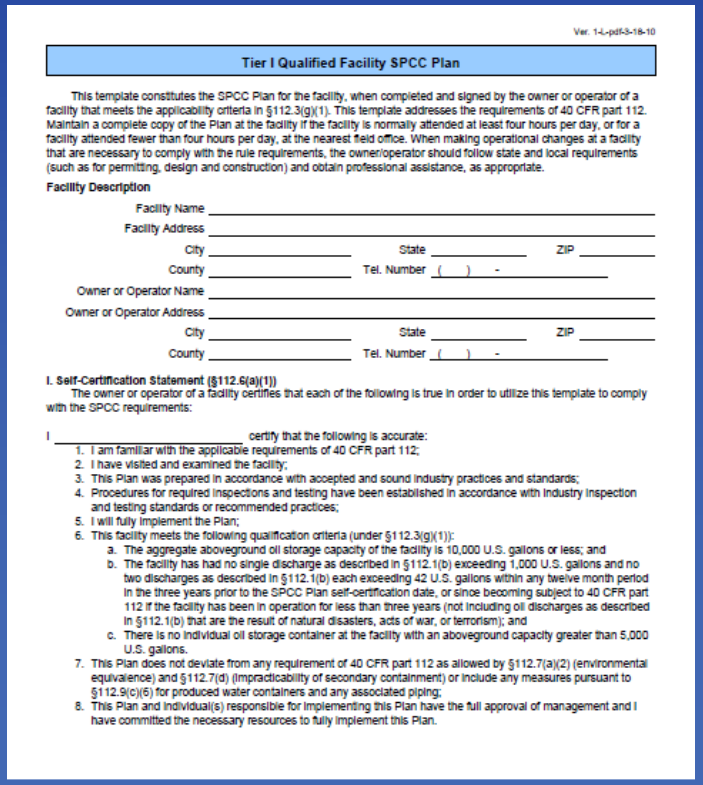
- Smaller oil storage facility that is eligible for streamlined regulatory requirements
  - Self-certified SPCC Plan instead of one reviewed and certified by a Professional Engineer
- Must meet eligibility criteria to use alternative option
- 2008 amendments divided this group of facilities into tiers

Tier Options for Qualified Facilities Self-Certification

- Facilities must first qualify for this option
  - Clean spill History (back three years, 2-42 gallon or 1000)
  - 10,000 gallons or less of AST facility capacity
- Tier II
  - All qualified facilities are Tier II
  - Full SPCC with no PE certification of Plan (self cert)
  - EPA can request a PE Plan
- Tier I
  - Qualified facilities that have no AST larger than 5,000 gallons
  - Facilities can use the rule's Appendix G template
  - Reduced requirements (Tier II cant use the template)
- Self certification issues
  - State Law
  - The attestation for facilities

Tier I Template

- Available at: http://www.epa.gov/osweroe1/content/spcc/tier1temp.htm



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Tier I Qualified Facility SPCC Plan

This template constitutes the SPCC Plan for the facility, when completed and signed by the owner or operator of a facility that meets the applicability criteria in §112.3(g)(1). This template addresses the requirements of 40 CFR part 112. Maintain a complete copy of the Plan at the facility if the facility is normally attended at least four hours per day, or for a facility attended fewer than four hours per day, at the nearest field office. When making operational changes at a facility that are necessary to comply with the rule requirements, the owner/operator should follow state and local requirements (such as for permitting, design and construction) and obtain professional assistance, as appropriate.

Facility Description

Facility Name _____

Facility Address _____

City _____ State _____ ZIP _____

County _____ Tel. Number (___) ___-_____

Owner or Operator Name _____

Owner or Operator Address _____

City _____ State _____ ZIP _____

County _____ Tel. Number (___) ___-_____

I. Self-Certification Statement (§112.6(a)(1))

The owner or operator of a facility certifies that each of the following is true in order to utilize this template to comply with the SPCC requirements:

I _____ certify that the following is accurate:

1. I am familiar with the applicable requirements of 40 CFR part 112;
2. I have visited and examined the facility;
3. This Plan was prepared in accordance with accepted and sound industry practices and standards;
4. Procedures for required inspections and testing have been established in accordance with industry inspection and testing standards or recommended practices;
5. I will fully implement the Plan;
6. This facility meets the following qualification criteria (under §112.3(g)(1)):
   a. The aggregate aboveground oil storage capacity of the facility is 10,000 U.S. gallons or less; and
   b. The facility has had no single discharge as described in §112.1(b) exceeding 1,000 U.S. gallons and 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 40 CFR part 112 if the facility has been in operation for less than three years (not including oil discharges as described in §112.1(b) that are the result of natural disasters, acts of war, or terrorism); and
   c. There is no individual oil storage container at the facility with an aboveground capacity greater than 5,000 U.S. gallons.
7. This Plan does not deviate from any requirement of 40 CFR part 112 as allowed by §112.7(a)(2) (environmental equivalence) and §112.7(d) (impracticability of secondary containment) or include any measures pursuant to §112.9(c)(6) for produced water containers and any associated piping;
8. This Plan and individual(s) responsible for implementing this Plan have the full approval of management and I have committed the necessary resources to fully implement this Plan.

General Requirements for SPCC Plans (§112.7) and Secondary Containment Provisions

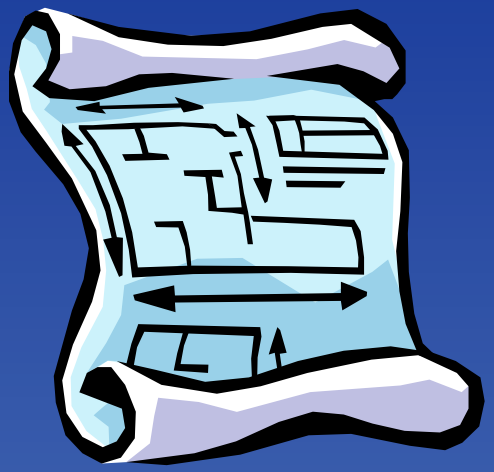
§112.7 General Requirements for SPCC Plans

Plan Format

- Prepare in writing and according to good engineering practice
- Approval of management with authority to commit resources to fully implement the Plan
- For procedures, methods, and equipment that are not yet fully operational:
  - Discuss in separate paragraphs
  - Explain separately the details of installation and start-up

Alternate Plan Formats

- If a Plan does not follow the sequence specified in the rule, an equivalent Plan may be prepared:
  - Acceptable to the Regional Administrator
  - Meets all applicable requirements in rule
  - Provide a cross-reference that shows the location of each of the SPCC requirements



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)

6.2 General Facility Description

- Chapter was expanded to include facility description requirements (new section)
- §112.7(a)(3) requires that the Plan include a description of the physical layout of the facility.
  - Facility's location
  - Type
  - Size
  - Geographic and topographic characteristics
  - Proximity to navigable waters
  - Other relevant information
- Supplemented with a more specific description of containers subject to the SPCC rule.

Guidance document change reflecting other information added

§112.7(a)(3)

6.2.1 Oil Types and Container Capacities

- Section 112.7(a)(3)(i) requires that the Plan include the type of oil in each fixed container and its storage capacity.
- For mobile or portable containers, Plan preparer can:
  - provide the type of oil and storage capacity for each container, or
  - provide an estimate of the potential number of mobile or portable containers, the types of oil, and anticipated storage capacities
- May identify an area on the facility diagram (e.g., a drum storage area) and include a separate description of the total number of containers, capacities, and contents in the Plan or reference facility inventories

§112.7(a)(3)(i)

6.2.2 Discharge Prevention Methods
6.2.4 Countermeasures

SPCC Plan must include:

- Discussion of discharge prevention measures including procedures for routine handling of products (loading, unloading, and facility transfers, etc.)
- Discussion of the facility's countermeasures for discharge discovery, response, and cleanup (both the facility's capability and those that might be required of a contractor).

§112.7(a)(3)(ii)

§112.7(a)(3)(iv)

Guidance document change reflecting other information added

6.2.3 Drainage Controls

- The Plan must include a discussion of discharge or **drainage controls such as secondary containment** around containers and other structures, equipment, and procedures for the control of a discharge. For example:
  - Method, design, and capacity for secondary containment chosen to address the typical failure mode, and the most likely quantity of oil that would be discharged.
  - Whether the secondary containment is either active or passive in design.
- Description for bulk storage containers should address whether the secondary containment is sized as required.

§112.7(a)(3)(iii)

Guidance document change reflecting other information added

6.2.5 Disposal Methods
6.2.6 Contact List

SPCC Plan must:

- Discuss the methods to dispose of recovered materials in the event of a discharge.
- Include a contact list that includes phone numbers for those who must be contacted in case of a discharge to navigable waters or adjoining shorelines.
  - Facility response coordinator,
  - National Response Center,
  - cleanup contractors, and
  - all appropriate Federal, State, Tribal and local agencies

§112.7(a)(3)(v)

§112.7(a)(3)(vi)

Guidance document change reflecting other information added

6.3 Notification Requirements

- The SPCC rule (40 CFR part 112) requires that the Plan list the type of information that is necessary to enable a person to report oil discharges to navigable waters or adjoining shorelines as required by 40 CFR part 110 (the sheen rule).
- The owner/operator of the facility should report discharges to the National Response Center (NRC)
  - 1-800-424-8802 or 1-202-267-2675
- If reporting directly to NRC is not practicable, reports also can be made to the EPA regional office or the U.S. Coast Guard Marine Safety Office (MSO) in the area where the incident occurred.
- It should be noted there are additional SPCC rule reporting requirements under §112.4:
  - If your facility has discharged more than 1,000 U.S. gallons of oil in a single discharge as described in §112.1(b), or discharged more than 42 U.S. gallons of oil in each of two discharges as described in §112.1(b), occurring within any twelve month period, you must submit certain information to the Regional Administrator within 60 days

§112.7(a)(4)

6.4.3 Requirements for a Facility Diagram

The following items are <u>required</u> 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;

[continued…]

§112.7(a)(3)

6.4.3 Requirements for a Facility Diagram (continued)

- Oil-filled electrical transformers, circuit breakers, or other equipment;
- 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).

§112.7(a)(3)

6.4.4 Level of Detail

- The scale and level of detail on a facility diagram may vary according to the needs and complexity of the facility.
- May represent complicated areas of piping or oil-filled equipment in a less detailed manner on the facility diagram in the SPCC Plan
  - As long as more detailed diagrams or other form of information is maintained elsewhere at the facility, referenced in Plan.

§112.7(a)(3)

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.

§112.7(a)(3)

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.

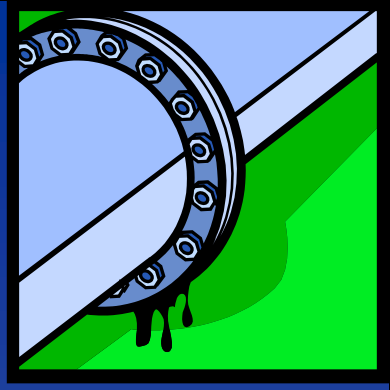
§112.7(a)(3)

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.”

§112.1(d)(11)

Failure Analysis



- Where experience indicates reasonable potential for equipment failure
  - Tank loading or unloading equipment
  - Tank overflow, rupture, or leakage
  - Any other equipment known to be a source of a discharge
- Predict for each type:
  - Direction
  - Rate of flow
  - Total quantity of oil which could be discharged

General Secondary Containment Requirement

- Requires secondary containment for all areas with the potential for a discharge
- Requires appropriate containment and/or diversionary structures to prevent a discharge that may be harmful (a discharge as described in §112.1(b))
- This is the **minimum** expectation for containment
  - General facility requirement with no sizing or freeboard requirements

Revision to General Secondary Containment Requirement

This revision:

- Clarifies that the general secondary containment requirement is intended to address the *most likely oil discharge* from any part of a facility

> New text: "… In determining the method, design, and capacity for secondary containment, you need only to address the typical failure mode, and the most likely quantity of oil that would be discharged. Secondary containment may be either active or passive in design."

- Modifies §112.7(c) to expand the list of example prevention systems for onshore facilities
  - Additional examples: drip pans, sumps, and collection systems

Active or Passive

- The revision clarifies that the use of both active and passive secondary containment measures is allowed.
- Active containment measures are those that require deployment or other specific action by the operator.
  - These may be deployed either before an activity involving the handling of oil starts, or in reaction to a discharge.
- Passive measures are permanent installations and do not require deployment or action by the owner or operator.

Active Measures vs. Contingency Plan

- Active secondary containment requires a deployment action; it is put in place prior to or immediately upon discovery of an oil discharge
  - The purpose of these measures is to contain an oil discharge before it reaches navigable waters or adjoining shorelines
- A contingency plan is a detailed oil spill response plan developed when any form of secondary containment is determined to be impracticable
  - The purpose of a contingency plan should be both to outline response capability or countermeasures to limit the quantity of a discharge reaching navigable waters or adjoining shorelines, and to address response to a discharge of oil that has reached navigable waters or adjoining shorelines

Example Methods of Secondary Containment listed in §112.7(c)

Examples include:

- Dikes, berms, or retaining walls
- Curbing
- Culverting, gutters, or other drainage systems
- Weirs
- Booms
- Barriers
- Spill diversion ponds and retention ponds
- Sorbent materials
- Drip pans
- Sumps and collection systems

Impracticability Provision

- If a facility owner or operator finds that containment methods are “impracticable,” he or she may substitute a combination of other measures in place of secondary containment.
- When a facility owner/operator is incapable of installing secondary containment by any reasonable method
- Considerations include:
  - Space and geographical limitations
  - Local zoning ordinances
  - Fire codes
  - Safety
  - Other good engineering practice reasons that would allow for secondary containment

Impracticability Provision

- If a facility owner or operator finds that containment methods are “impracticable,” he or she may substitute a combination of other measures in place of secondary containment

Impracticability

§112.7(d)

Meaning of “Impracticable”

- When a facility owner/operator is incapable of installing secondary containment by any reasonable method
- Considerations include:
  - Space and geographical limitations
  - Local zoning ordinances
  - Fire codes
  - Safety
  - Other good engineering practice reasons that would not allow for secondary containment

§112.7(d)

Impracticability Requirements

The impracticability provision requires:

1. Explanation in Plan of why secondary containment methods are impracticable
2. Periodic integrity testing of bulk storage containers and periodic integrity testing and leak testing of the valves and piping associated with the containers
3. Unless facility has submitted a Facility Response Plan (FRP) under §112.20:
   - An oil spill contingency plan following the provisions of 40 CFR part 109; and
   - A written commitment of manpower, equipment, and materials required to control and remove any quantity of oil discharged that may be harmful

§112.7(d)

Content of Oil Spill Contingency Plans

- Contingency Plan following requirements for 40 CFR 109 – Criteria for State, Local and Regional Oil Removal Contingency Plans

- Goal is to ensure timely, efficient, coordinated, and effective action to minimize damage resulting from oil discharges

§109.5

Impracticability

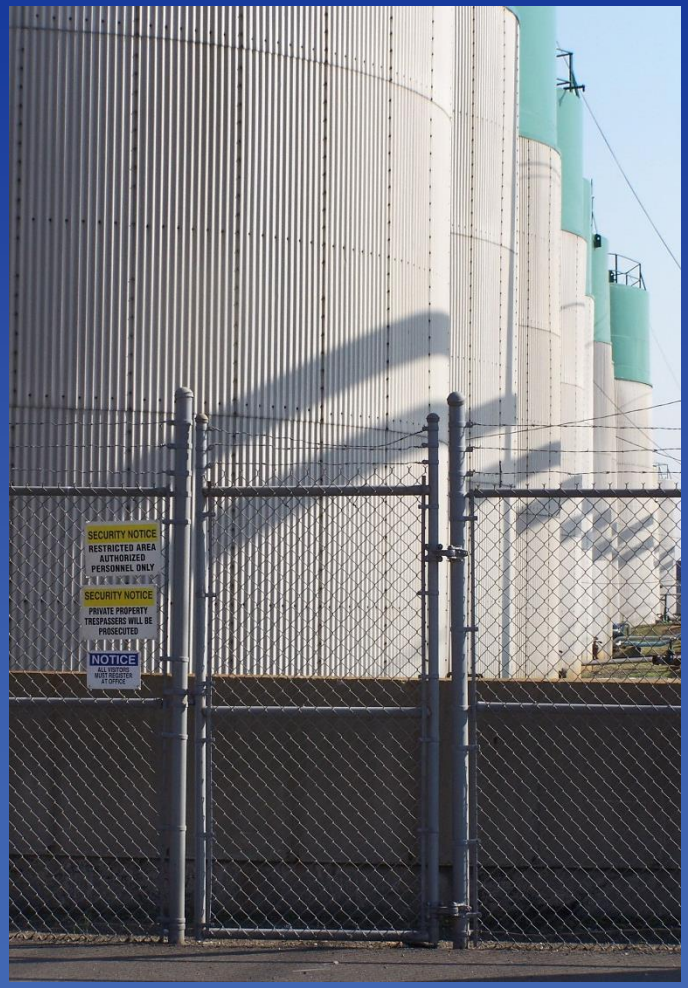
Recordkeeping

- Written procedures of tests and inspections
- Keep record of procedures and record of inspections/tests
  - Signed by appropriate supervisor or inspector
  - With SPCC Plan
  - Period of three years
  - Records of inspection/tests kept under usual and customary business practices suffice

Personnel Training

- Train oil-handling personnel
  - Operation/maintenance of prevention equipment
  - Discharge procedure protocols
  - Applicable pollution control laws, rules, and regulations
  - General facility operations
  - Contents of the facility SPCC Plan
- Designate person accountable for discharge prevention and who reports to facility mgmt
- Schedule/conduct at least one briefing/year:
  - Known discharges and failures, malfunctioning components, new precautionary measures

Security Requirements



- Security requirements for all applicable* facilities are now consistent with requirements for qualified facilities as finalized in December 2006.
  - More streamlined, performance-based
  - Tailored to the facility's specific characteristics and location

* Production facilities have no security requirements

Facility Security

- To prevent acts of vandalism and assist in the discovery of oil discharges, describe how they:
  - Control access to the oil handling, processing and storage areas
  - Secure master flow and drain valves and out-of-service and loading/unloading connections of oil pipelines
  - Prevent unauthorized access to starter controls on oil pumps
  - Address the appropriateness of security lighting

2008 Amendments

Definition of Loading/Unloading Rack

Loading/unloading rack **means 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.**

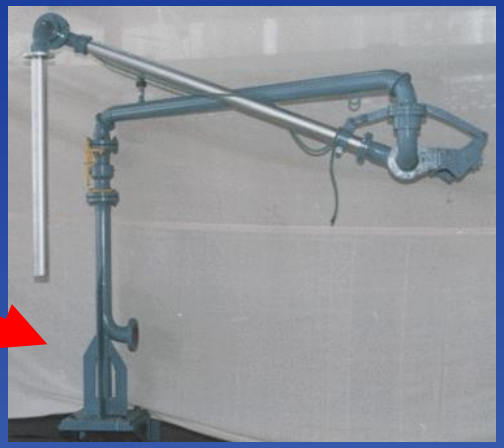
Loading Racks

- Loading Rack Requirements
  - Secondary containment to hold at least the maximum capacity of any single compartment of a tank car or tank truck loaded or unloaded at the facility.
  - Provide interlocked warning lights or physical barrier system, warning signs, wheel chocks or vehicle break interlock system
  - Closely inspect for discharge the lowermost drain and all outlets of vehicle prior to filling and departure
- Requirements only apply when loading racks are present
- Production facilities typically do not have loading racks

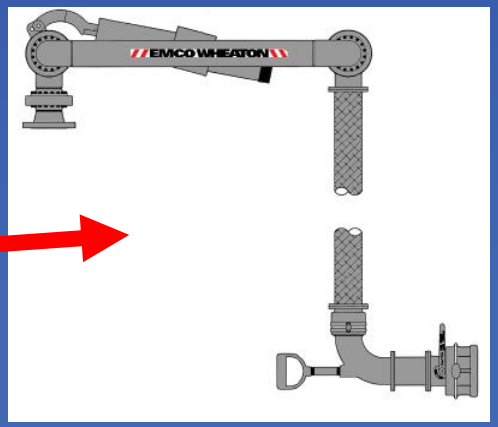
Modifications to Loading Rack Provision

- Term "rack" replaces "area" throughout §112.7(h) requirement.
  - Provides clarity on applicability of the provision.

Loading Arm



Look for the loading arm



Brittle Fracture

- Field-constructed aboveground container must be evaluated for risk of discharge or failure due to brittle fracture if:
  - Container undergoes a repair, alteration, reconstruction, or change in service that might affect risk of discharge or failure due to brittle fracture or other catastrophe, or
  - Container has discharged oil or failed due to brittle fracture failure or other catastrophe

4.2.1 Qualified Oil-Filled Operational Equipment

Determining eligibility:

- The facility owner/operator determines if he is eligible to use the alternative measures in §112.7(k)

Must answer "no" to the following to be eligible:

In the three years before the SPCC Plan is certified, has the facility had any discharges to navigable waters or adjoining shorelines from oil-filled operational equipment as described below:

- A single discharge of oil greater than 1,000 gallons?
- Two discharges of oil each greater than 42 gallons within any 12-month period?

§112.7(k)

4.2.1 Qualified Oil-Filled Operational Equipment

- **Alternative measures** in lieu of meeting general secondary containment requirements:
  - Establish and document an **inspection or monitoring program** to detect equipment failure and/or a discharge.
  - Prepare an **oil spill contingency plan** and provide a **written commitment** of manpower, equipment, and materials (unless the facility has submitted an FRP).
- No impracticability determination needed for the qualified oil-filled operational equipment.
- Use of alternative measures is optional.
  - The owner/operator can provide secondary containment.

§112.7(k)

4.2.1 Qualified Oil-Filled Operational Equipment

Other information:

- Owners/operators of Qualified Facilities may use these alternative measures.
  - No impracticability determination, no PE needed
- Oil-filled operational equipment does not include oil-filled manufacturing equipment (flow-through process).
  - Manufacturing equipment is more complicated and **is not** defined as **oil-filled operational equipment**
  - Manufacturing equipment **is** considered **oil-filled equipment** and therefore is not a bulk container
    - General containment 112.7(c) applies but there are no sized containment requirements
    - No integrity testing
    - No overfill requirements

§112.7(k)

SPCC Requirements for Onshore Bulk Storage Facilities (§112.8)

§112.8 SPCC Requirements for Onshore Facilities

- Outlines specific requirements (in addition to general requirements in §112.7) for onshore facilities (excluding production facilities) regarding:
  - Facility drainage
  - Bulk storage containers
  - Containment drainage requirements
  - Facility transfer operations, pumping, and facility process

Construction Requirements

- Do not use a container for the storage of oil unless its material and construction are compatible with the material stored and conditions of storage such as pressure and temperature.

Convert-a-zontals

Facility Drainage

- When containment methods such as dikes and berms are used to satisfy secondary containment requirements, specific facility drainage requirements also apply.
- Diked areas at onshore facilities (except production):
  - Valves should be used to prevent a discharge into the drainage system if there is not already a system to prevent this in place
  - Diked areas can be emptied with pumps or ejectors, but these must be manually activated and the accumulation must be inspected before starting
  - Valves of manual, open-and closed design must be used for the drainage of diked areas

Facility Drainage

- When secondary containment requirements are addressed through facility drainage controls, other requirements apply:
  - §§112.8(b)(3) and (4), or §§112.12(b)(3) and (4) for undiked areas at onshore facilities (except production)
  - For example, a facility may choose to use the existing storm drainage system by channeling discharged oil to a remote containment area to prevent a discharge
  - The drainage system must be designed to flow into ponds, lagoons, or catchment basins designed to retain oil or return it to the facility
  - Alternatively, equip final discharge of all ditches with diversion system that would retain oil at the facility
  - Provide two "lift" pumps when using more than one continuous treatment unit

Specific (Sized) Secondary Containment Requirements

- Areas where certain types of containers, activities, or equipment are located may be subject to additional, more stringent, containment requirements
- Sized to largest tank or tanker compartment with freeboard for a rain event
- EPA does not specify a freeboard requirement
  - 110% rule of thumb and 25 year 24 hour storm event
- Specific minimum size requirement for secondary containment for the following areas:
  - Loading/unloading racks (no freeboard requirements)
  - Bulk storage containers
  - Mobile or portable bulk storage containers
  - Production facility bulk storage containers, including tank batteries, separation, and treating vessels/equipment

Sufficiently Impervious

- §112.7(c): Secondary containment system "must be capable of containing oil and must be constructed so that any discharge ... will not escape containment system before cleanup occurs"
- §§112.8(c)(2) and 112.12(c)(2): Diked areas must be "sufficiently impervious to contain oil"
- EPA does not specify permeability or retention time for these provisions
- The PE and owner/operator have flexibility in determining how best to design secondary containment to meet these requirements

Regularly Scheduled Integrity Testing

- Applies to:
  - Large (field-constructed or field-erected) and small (shop-built) aboveground bulk storage containers
  - Aboveground bulk storage containers on, partially in (partially buried, bunkered, or vaulted tanks) and off the ground wherever located
  - Aboveground bulk storage containers storing any type of oil
    - Examples: mobile/portable containers, drums, totes

*What containers at a facility are **not** subject to integrity testing provisions?*

Integrity Testing

- Provides flexibility in complying with bulk storage container inspection and integrity testing requirements. Requires owner/operator to:
  - Test/inspect each aboveground container for integrity on a regular schedule and whenever material repairs are made.
  - Determine, in accordance with industry standards, the appropriate qualifications of personnel performing tests and inspections and the frequency and type of testing and inspections, which take into account container size, configuration, and design
- Establishing a baseline
- SP001 and API 653
- Visual inspection is a separate requirement
- Requirements for inspection of foundations and supports

Completely (and Partially) Buried Metallic Tanks

- Protect completely buried metallic storage tanks installed on or after January 10, 1974 from corrosion using:
  - Coatings or Cathodic protection
- Ensure that corrosion protection is compatible with local soil conditions
- **Conduct regular leak tests on metallic tanks**

§§112.8(c)(4) and 112.12(c)(4)

- Do not use partially buried or bunkered metallic tanks unless you protect the buried section from corrosion (see above methods)

Internal Heating Coils

- Control leakage through defective internal heating coils by:
  - Monitoring steam return and exhaust lines for contamination from internal heating coils that discharge into open watercourse; or
  - Pass steam return or exhaust lines through settling tank, skimmer, or other separation or retention system

Overfill Protection

- Follow good engineering practices to avoid discharges from container installations
- Provide at least one of the following devices:
  - High liquid level alarms
  - High liquid level pump cutoff
  - Direct audible or code signal communication between container gauger and pumping station
  - Fast-response system for determining liquid level of each bulk storage container, with person present to monitor
- Regularly test liquid level sensing devices (follow manufacturers specifications)


26 15:26

Piping Installations

- Buried piping installed after August 16, 2002 must be:
  - Protectively wrapped and cathodically protected; or
  - Satisfy the corrosion protection provisions for piping in 40 CFR parts 280 or 281 (state program)

- Requirement applies to all soil conditions
- Exposed piping must be inspected for corrosion
- Take corrective action if corrosion damage

Piping Installations (continued)

- Conduct regular inspections of all aboveground valves, piping, and appurtenances
  - Assess general condition of items such as flange joints, expansion joints, valve glands and bodies, catch pans, pipeline supports, locking of valves, and metal surfaces
- Conduct integrity and leak testing of buried piping at time of installation, modification, construction, relocation, or replacement
- Cap or blank-flange piping
- Signs to prevent pipe strikes
- Properly designed piping supports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2008 WINNER OF BEST STICK IN A SUPPORTING ROLE

SPCC Requirements for Oil Production, Drilling and Workover Facility

(§112.9-10)

Overview of Rule Revisions Related to Oil Production Facilities

- EPA streamlined, tailored, and clarified requirements for oil production facilities including:
  - Definition of Production Facility
  - SPCC Plan Preparation and Implementation Timeframe
  - Flowlines and Intra-facility Gathering Lines
  - Flow-through Process Vessels
  - Produced Water Containers
  - Oil and Natural Gas Pipeline Facilities
  - Definition of “Permanently Closed”

General Requirements Applicable to ALL Facilities

- Production facilities must meet general requirements under §112.7
  - Except the security requirement (§112.7(g))
  - Except general containment requirement (§112.7(c)) for certain flowlines and gathering lines

Which rule section applies - §112.8 or §112.9?

- 2008 Amendment Preamble Clarification:
  - Only the infrastructure, containers and equipment uniquely associated with the production of crude oil is subject to the specific requirements for a production facility (§112.9).
    - Containers, equipment, and piping containing crude oil used in the production, extraction, recovery, lifting, stabilization, separation or treatment of oil or gas condensate, or their associated storage or measurement are included.

API Gas Plant Letter

- On December 10, 2010, EPA provided guidance to API regarding the applicability of the SPCC rule to gas plants and gas compression stations
- Gas plants are generally not considered oil production facilities under the SPCC rule and are therefore subject to the facility specific requirements under 40 CFR part 112.8 rather than 112.9.
- As with gas plants, gas compression stations are not generally considered oil production facilities under the SPCC rule and are therefore subject to the facility specific requirements under 40 CFR part 112.8 rather than 112.9.

§112.9 SPCC Requirements for Onshore Production Facilities

- Outlines specific requirements (in addition to general requirements in §112.7) for onshore production facilities regarding:
  - Facility drainage
  - Bulk storage containers
  - Facility transfer operations, pumping, and

SPCC Plan Preparation and Implementation Timeframe

- A new oil production facility has six months after the start of operations to prepare and implement an SPCC Plan.
  - A new oil production facility is one that becomes operational after November 10, 2010 (offshore or FRP) or November 10, 2011 (onshore).
  - “Start of operations” is indicated by the start of well fluid pumping, transfer via flowlines, separation,

SPCC Plan Preparation and Implementation Timeframe

- Oil production facilities are likely to stabilize within six months after the start of operations.
  - Applicable only to oil production facilities due to their unique characteristics of variable and uncertain initial flowrates
- Amendment does ***not*** apply to:
  - An existing production facility in which a new well is drilled—facility owner/operator must amend SPCC Plan within 6 months in accordance with §112.5(a)
  - Drilling or workover activities at a production facility—drilling and workover operations are subject to requirements at §112.3(c)

Production Facility Drainage

- At tank batteries and separation and treating areas
  - Close and seal at all times drains of dikes (or drains of equivalent measures) where there is a reasonable possibility of a discharge
  - Often dikes areas not equipped with valve and are drained manually by a pump.
- Prior to drainage, must inspect diked area and take action according to §112.8(c)(3)
  - Inspect retained rainwater to ensure it will not be discharged in harmful quantities
  - Supervise open bypass valve, and reseal after drainage is complete
  - Keep adequate records of such events

Production Facility Drainage

- Remove accumulated oil on the rainwater and return it to storage or dispose of it in legally approved method
- Oil field drainage
  - Inspect at regularly scheduled intervals for an accumulation of oil that may have resulted from any small discharge
  - Promptly remove any accumulations of oil


JUN 20 2003


JUL 24 2003

Bulk Storage Containers at Production Facilities

Container compatibility (§112.9(c)(1)):

- Do not use a container for the storage of oil unless its material and construction are compatible with the material stored and the conditions of storage

Bulk Storage Containers at Production Facilities §112.9(c)(2)

- For all bulk containers in the tank battery, separation and treatment facilities satisfy the sized containment requirement (sized to largest container plus freeboard for precipitation); or
- For process vessel and/or produced water containers, meet the alternative compliance requirements
- For oil containers that directly support production operations at a production facility but are not a part of a tank battery, or separation, and treatment equipment, then follow §112.7(c) for secondary containment requirements
- If the bulk container does not support production operations then the §112.8 requirements apply

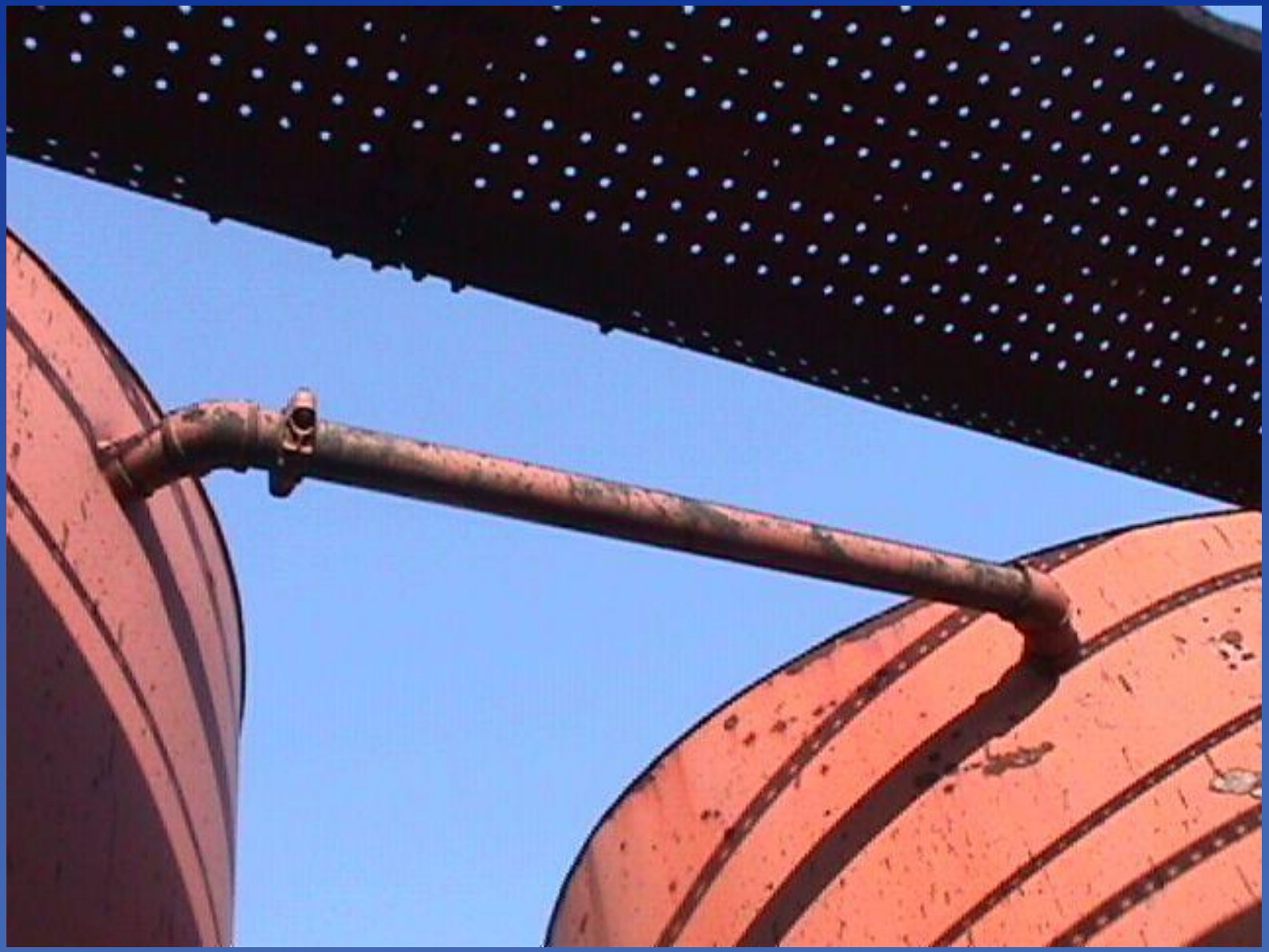
Bulk Storage Container Inspections at Production Facilities

- Visual Inspection (§112.9(c)(3))
- Periodically and upon a regular schedule visually inspect each container for deterioration and maintenance needs
- Include the foundation and support of each container that is on or above the surface of the ground

Bulk Storage Containers at Production Facilities

- Engineer according to good engineering practice to prevent discharges (§112.9(c)(4)), providing at least one of the following:
  - Ensure the container capacity is adequate to prevent overfill if a pumper/gauger is delayed in making regularly schedule rounds
  - Provide overflow equalizing lines between containers so that a full container can overflow to an adjacent container
  - Provide vacuum protection that is adequate to prevent container collapse during a pipeline run or transfers

Equalizing Line



Flow-through Process Vessels

- What is a flow-through process vessel at an oil production facility?
  - Has the primary purpose of separating the oil from other fractions (water and/or gas) and sending the fluid streams to the appropriate container
  - Can be horizontal or vertical separation vessels (e.g., heater-treater, free-water knockout, gun-barrel, etc.)

Compliance Alternative: Flow-Through Process Vessels

- Either comply with sized secondary containment for flow-through process vessels (separation equipment), or, in the alternative:
  - Visual inspection and/or testing on a periodic and regular schedule
  - Corrective action or repairs
  - Prompt removal or initiation of actions to stabilize and remediate any accumulations of oil discharges
- General secondary containment requirements still apply.

If the facility discharges to navigable waters or adjoining shorelines:

- 1,000 U.S. gallons of oil in a single discharge, or
- 42 U.S. gallons of oil in each of two discharges within a 12 month period

from a flow-through process vessel, then the facility owner/operator may no longer take advantage of this alternative option and must comply with the sized secondary containment requirements at §112.9(c)(2) and inspection requirements at §112.9(c)(3) within six months of discharge.

Compliance Alternative: Produced Water Containers

- Instead of providing sized secondary containment for produced water containers, a facility owner/operator can:
  - Have a PE certify a procedure for each produced water container that is designed to separate the free-phase oil that accumulates on the surface of the produced water, that is implemented on a regular schedule;
  - Conduct visual inspections, maintenance and corrective action;
- General secondary containment requirements still apply

If the facility discharges to navigable waters or adjoining shorelines:

- 1,000 U.S. gallons of oil in a single discharge, or
- 42 U.S. gallons of oil in each of two discharges within a 12 month period

from a produced water container, then the facility owner/operator may no longer take advantage of this alternative option and must comply with the sized secondary containment requirements at §112.9(c)(2) and inspection requirements at §112.9(c)(3) within six months of the discharge.

Procedure to Remove Oil from Produced Water Containers

- A procedure designed to remove free-phase oil that accumulates on the surface of the produced water container
  - Implemented on a regular schedule
  - General secondary containment must be able to address the amount of oil in the produced water container
- SPCC Plan must include:
  - Description of the free-phase oil separation and removal;
  - Frequency it is implemented;
  - Amount of free-phase oil expected to be inside the container; and
  - Description of the general secondary containment
- Owner or operator must keep records of the implementation of these procedures in accordance with §112.7(e).

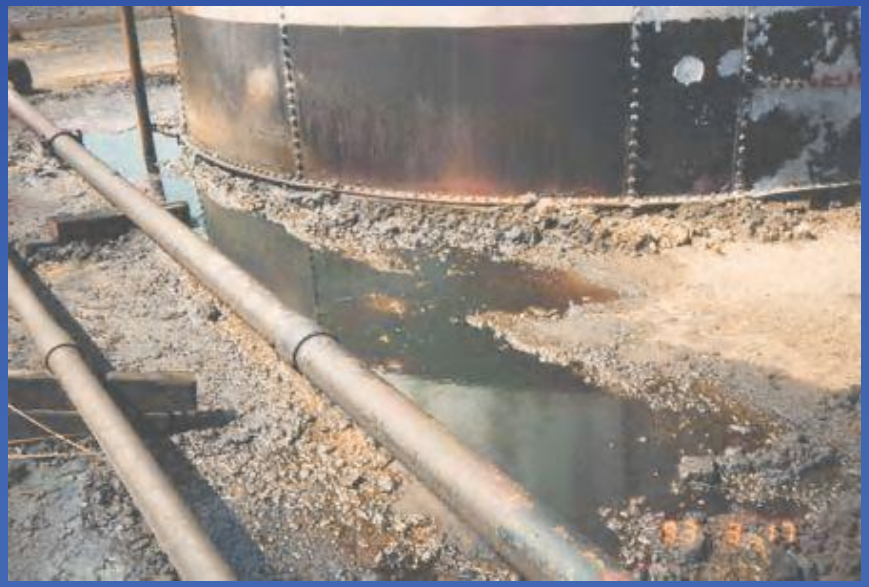
PE Certification

- PE attests that Plan is prepared in accordance with good engineering practices and includes a provision certifying that:
  - An oil removal procedure for produced water containers is designed to reduce the accumulation of free-phase oil, and
  - The procedures and frequency for required inspections, maintenance and testing have been established and are described in the Plan.

Flowlines and Intra-facility Gathering Lines

- What is a flowline?
  - Flowlines are piping that transfer crude oil and well fluids from the wellhead to the tank battery and from the tank battery to the injection well.
- What is a gathering line?
  - Gathering lines transfer crude oil product between tank batteries, within or between facilities.
  - Any gathering lines within the boundaries of a facility are “intra-facility gathering lines” and within EPA’s SPCC jurisdiction.
  - Gathering lines often originate from an oil production facility’s lease automatic custody transfer (LACT) unit.
- “Flowline” and “gathering line” are not defined in the rule.

Flowlines and Gathering Lines



Compliance Alternative: Flowlines

- Secondary containment is often impracticable for flowlines and intra-facility gathering lines
- SPCC rule provides an optional alternative to general secondary containment
- Instead of secondary containment for flowlines and intra-facility gathering lines, rule requires:
  - Implementation of an oil spill contingency plan in accordance with 40 CFR part 109
  - Written commitment of manpower, equipment, and materials to control and remove any quantity of oil discharged that may be harmful
  - Flowline/intra-facility maintenance program meeting the new rule requirements.
- Secondary containment may still be used instead

Flow and Intra-Facility Gathering Line Maintenance Program

- Requirements for flowline and intra-facility gathering line maintenance program were made more specific.
- Before the 2008 amendments, the rule required, under §112.9(d)(3), to “have a program of flowline maintenance”

Flow and Intra-Facility Gathering Line Maintenance Program

- The maintenance program must address procedures to:
  1) Ensure compatibility with the type of production fluids, their potential corrosivity, volume, and pressure, and other conditions expected in the operational environment
  2) Visually inspect and/or test 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)
  3) Take corrective action or make repairs as indicated by regularly scheduled visual inspections, tests, or evidence of a discharge
  4) Promptly remove or initiate actions to stabilize and remediate any accumulations of oil discharges associated with flowlines, intra-facility gathering lines, and associated appurtenances

Transfer Operations – Aboveground Valves and Piping

- Inspect, periodically and upon a regular schedule, for the general condition of flange joints, valve glands and bodies, drip pans, pipe supports, pumping well polish rod stuffing boxes, bleeder and gauge valves and other such items

Transfer Operations – Saltwater Disposal Facilities

- Inspect saltwater (oil field brine) disposal facilities often to detect possible system upsets capable of causing discharge
- Particularly following a sudden change in atmospheric temperature

Onshore Drilling and Workover Requirements

Onshore Drilling and Workover Requirements

- Meet general requirements listed under 40 CFR 112.7, and:
- Position or locate mobile drilling or workover equipment so as to prevent a discharge *§112.10(b)*

Onshore Drilling and Workover Requirements

- Provide catchment basins, reserve pits, or diversion structures to contain any spill of oil or oily fluids (drilling mud)

§112.10(c)

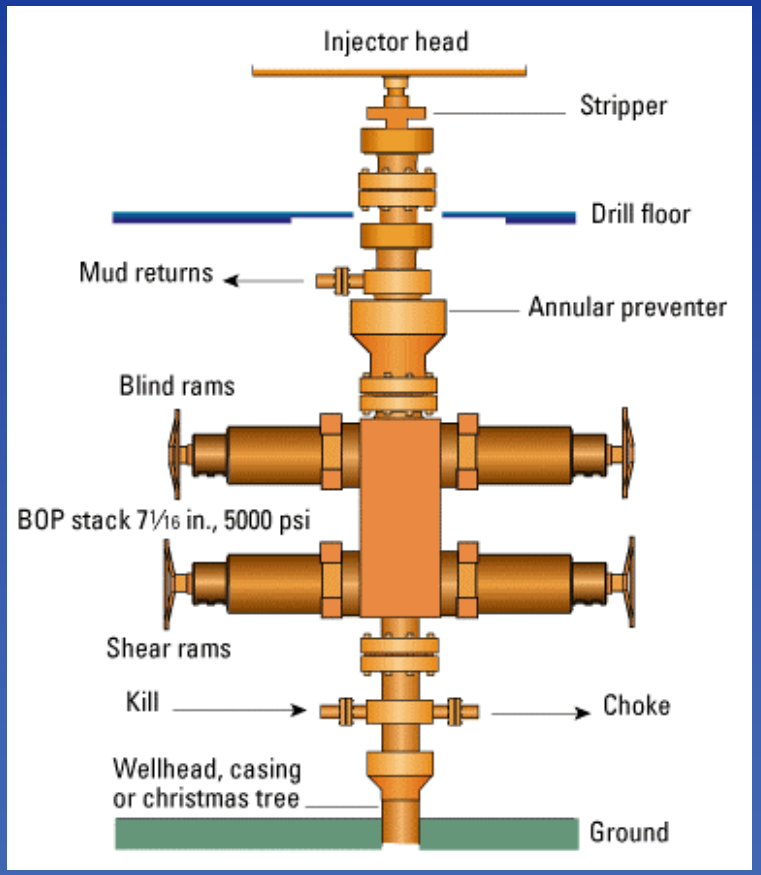
Onshore Drilling and Workover

- No specific sizing requirement, and no freeboard requirement for secondary containment

§112.10(c)

Onshore Drilling and Workover

- Install a Blow Out Prevention (BOP) assembly and well control system
- The BOP assembly and well control system must be capable of controlling any well-head pressure that may be encountered



§112.10(d)

Impracticability for Onshore Drilling or Workover Equipment

- The facility owner/operator may determine that it is impracticable to provide secondary containment in accordance with §112.10(c) or §112.7(c)
- Per §112.7(d), the SPCC Plan must:
  - Clearly explain why secondary containment is not practicable
  - Document how the additional regulatory requirements of §112.7(d) are implemented

Part 2: Federal Oil Discharge (Spill) Reporting Requirements

Reporting Requirements for Oil Spills under 40 CFR part 110

- Report all oil discharges to navigable waters of the U.S. and adjoining shorelines to NRC at 1-800-424-8802
- Federal government's centralized reporting center, which is staffed 24 hours a day by U.S. Coast Guard personnel
- Any person in charge of a vessel or an onshore or offshore facility must notify NRC immediately after he or she has knowledge of the discharge
- NRC relays information to EPA or U.S. Coast Guard depending on the location of the incident
- An On-Scene Coordinator evaluates the situation and decides if federal emergency response action is necessary
- Federal notification does not ensure State and Local notification

Specific Spill Reporting Requirements under the SPCC rule 40 CFR part 112

- Report to the EPA Regional Administrator (RA) when there is a discharge of:
  - More than 1,000 U.S. gallons of oil in a single discharge to navigable waters of the U.S. and adjoining shorelines
  - More than 42 U.S. gallons of oil in each of two discharges to navigable waters of the U.S. and adjoining shorelines within a 12-month period
  - When making this determination it is the amount of the discharge in gallons that reaches navigable waters of the U.S. and adjoining shorelines
  - An owner/operator must report the discharge(s) to the EPA Regional Administrator within 60 days

Specific Spill Reporting Requirements under the SPCC rule 40 CFR part 112

- Name of the facility;
- Your name;
- Location of the facility;
- Maximum storage or handling capacity of the facility and normal daily throughput;
- Corrective action and countermeasures you have taken, including a description of equipment repairs and replacements;
- An adequate description of the facility, including maps, flow diagrams, and topographical maps, as necessary;
- The cause of such discharge as described in §112.1(b), including a failure analysis of the system or subsystem in which the failure occurred;
- Additional preventive measures you have taken or contemplated to minimize the possibility of recurrence; and
- Such other information as the Regional Administrator may reasonably require pertinent to the Plan or discharge

Specific Spill Reporting Requirements under the SPCC rule 40 CFR part 112

- Send to the appropriate agency or agencies in charge of oil pollution control activities in the State in which the facility is located a complete copy of all information you provided to the Regional Administrator
- Upon receipt of the information such State agency or agencies may conduct a review and make recommendations to the Regional Administrator as to further procedures, methods, equipment, and other requirements necessary to prevent and to contain discharges from your facility
- As stated earlier this may trigger an inspection
- This requirement is designed to identify SPCC Plan failures and ineffective implementation of the Plan

Part 3: Federal SPCC Inspection Process

Triggering Events Initiating Inspections

Referrals (State or Local)

Oil Discharges (Spills)

Multi-Media Inspections

Facility Incident

Targeted Outreach with Compliance Monitoring

Routine Compliance Monitoring

- Yep…you have won the inspection lottery

And your friendly EPA inspector shows up at your door…

Inspection Process

Roles of the Inspector

- Official Agency representative
- Fact finder
- Technical authority
- Enforcement case developer (in some cases)
- Enforcement presence
- Technical educator

General Categories of Inspections

- Routine compliance (part of planned inspection program)
- “For cause” in response to suspected spill or violation
- Case development support or follow-up
- Multi-media and technical assistance

Inspection Notice Types

- **Unannounced Inspections**
  - Knock Knock! Who's there? EPA. EPA Who?
  - EPA Inspectors are authorized to enter any facility during normal business hours
  - Legal basis for entry under 40 CFR part 112 is Clean Water Act (Sections 308 and 311[m])
  - May be longer due to onsite Plan review
- **Announced Inspections**
  - May request of SPCC Plan in advance
  - Facilitates coordination and cooperation
  - Allows for applicable records to be available for review at time of inspection

What to expect during a SPCC Inspection Overview

- Opening conference
- Discussion of facility operations and site specific SPCC elements
- Use of detailed SPCC checklist
- Review of Plan onsite
- Records review
- Facility walk-through
- Closing conference
- Follow-up
- In certain cases, enforcement

Post Inspection

- SPCC reporting on compliance monitoring observations
- Facility found in compliance
  - Follow up and case closure
- Facility found to out of compliance
  - Facility provided notice
    - Issuance of post inspection letter
    - Notice of Deficiencies
    - Notice of Violations

7:30:00AM

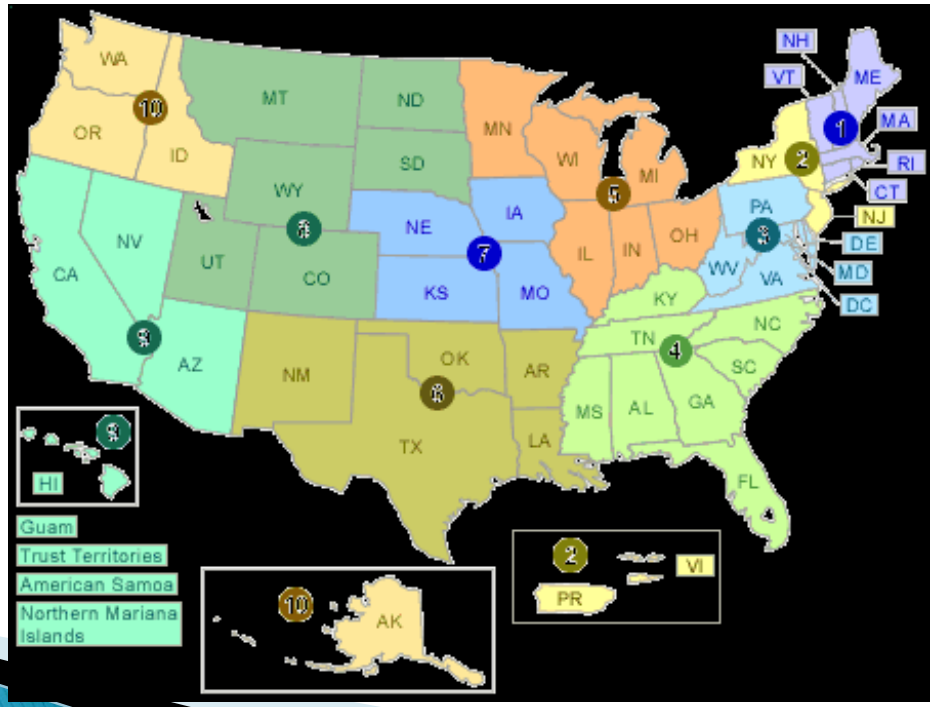
  - Expedited Settlement Agreements
  - EPA Orders under FWPCA 311c and 311 e
  - Enforcement Actions (covered later in detail)
    - Class I and Class II penalty actions
    - DOJ referrals
  - Compliance Action Enforcement/follow up
  - Case Closure

How Produce Viable Targets for EPA Regional Inspection Staff

- Facilities with CWA 311 jurisdiction relative to the definition of WOTUS
  - Important for Oil Discharges from facilities
  - Important for SPCC applicability
- Spills versus discharges that violate the CWA and must be reported under 40 CFR part 110 or the sheen rule
- Things to look for:
  - No SPCC Plan
  - No secondary containment for bulk storage
  - Overall storage capacity

EPA Oil Staff POCs

- Regional inspection staff may be contacted by using the following link: https://www.epa.gov/oil-spills-prevention-and-preparedness-regulations/contact-us-about-oil-spill-prevention-and



Part 4: Findings From the Field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09/07/2016


08/30/2016


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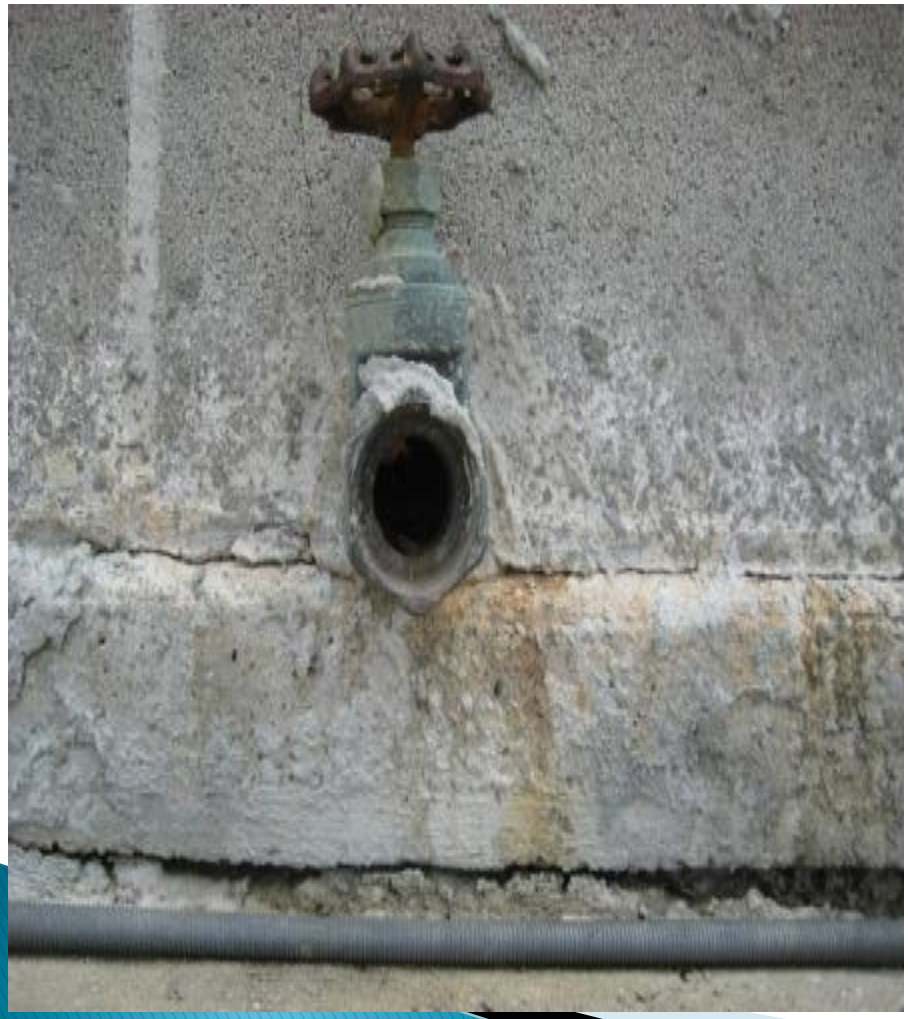
DO NOT ENTER

Integrity of Containment

Integrity of Containment

Corroding Cinder block walls as containment

Drainage valve left open on and not connected properly in onshore secondary containment



Excessive Vegetation

Pipes running through secondary containment causing inadequate containment

Housekeeping

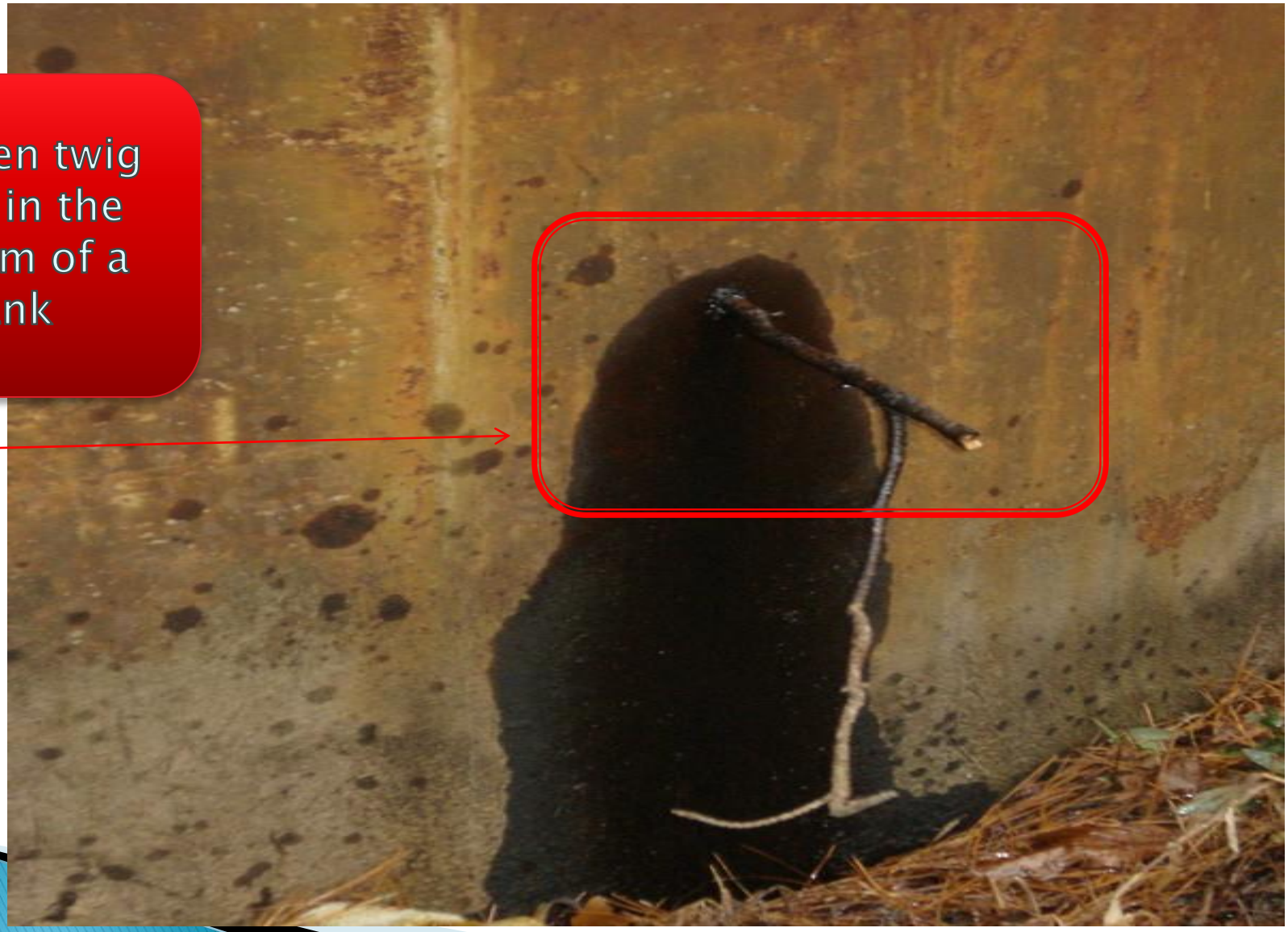
Piping and Valve Issues

Maintenance and Housekeeping

Improper Tank Patching

Wooden plug used in the bottom of a tank

Improper Tank Patching




CONDENSATE
WATER
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PR/X42R PSL-2 SMLS


SPILL
EQUIPTMENT
BOX.


DANGER
DIESEL
FUEL


1993


1993
FUEL OIL


1

On a positive note facilities are complying


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For More Information

- EPA Emergency Management Web Site
  - www.epa.gov/emergencies
  - www.epa.gov/oilspill
- Superfund, TRI, EPCRA, RMP, and Oil Information Center
  - (800) 424-9346 or (703) 412-9810
  - TDD (800) 553-7672 or (703) 412-3323
  - http://www.epa.gov/superfund/contacts/infocenter/index.htm

Any Questions?

Mark W. Howard
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202-564-1964

Nick Nichols
Tribal Coordinator
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202-564-1970

U.S. EPA Office of Emergency Management
http://www.epa.gov/emergencies

Oil Information Center:
(800) 424-9346 or TDD (800) 553-7672

Thank You