

SPCC *40 CFR Part 112*

Lets Get Into the Weeds

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**Compliance Assistance
Conference**

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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 August 2013. This presentation may be revised periodically without public notice.

Introductions

- Your Name
- Your Sector/Business
- Question you need answered
- Favorite musical act (band, person, group)

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Part I: Introduction to the SPCC Rule



Intro to SPCC Rule: Agenda

1. Purpose of SPCC Rule
2. Rule Organization
3. History
4. Current Status
5. Compliance Dates

Please note that this presentation will not cover every SPCC provision

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

Rule Organization

<i>Rule Section</i>	<i>Topics</i>
Subpart A	Applicability, definitions, and general requirements for all facilities and all types of oil
Subpart B	Requirements for petroleum oils and non-petroleum oils, except those covered in Subpart C
Subpart C	Requirements for animal fats and oils and greases, and fish and marine mammal oils; and vegetable oils, including oils from seeds, nuts, fruits, and kernels
Subpart D	Response requirements (FRP rule)

40 CFR 112 Structure

- §112.1 General applicability of the rule
- §112.2 Definitions of terms used in the rule
- §112.3 Requirement to prepare an SPCC Plan
- §112.4 Amendment of SPCC Plan by RA
- §112.5 Amendment of SPCC Plan by owner or operator
- §112.6 Qualified Facilities [2006 amendment]
- §112.7 General requirements of all facilities
- §§112.8 – 112.12 Additional specific requirements for different types of facilities and different types of oils
- §112.20 Facility Response Plans
- §112.21 Facility response training and drills/exercises

40 CFR 112 Structure (continued)

- Appendix A** Memorandum of understanding between the Secretary of Transportation and the Administrator of the Environmental Protection Agency
- Appendix B** Memorandum of understanding among the Secretary of the Interior, Secretary of Transportation, and Administrator of the Environmental Protection Agency
- Appendix C** Substantial harm criteria
- Appendix D** Determination of a worst case discharge panning volume
- Appendix E** Determination and evaluation of required response resources for facility response plans
- Appendix F** Facility-specific response plan
- Appendix G** Tier I template

2002 SPCC Rule Revision

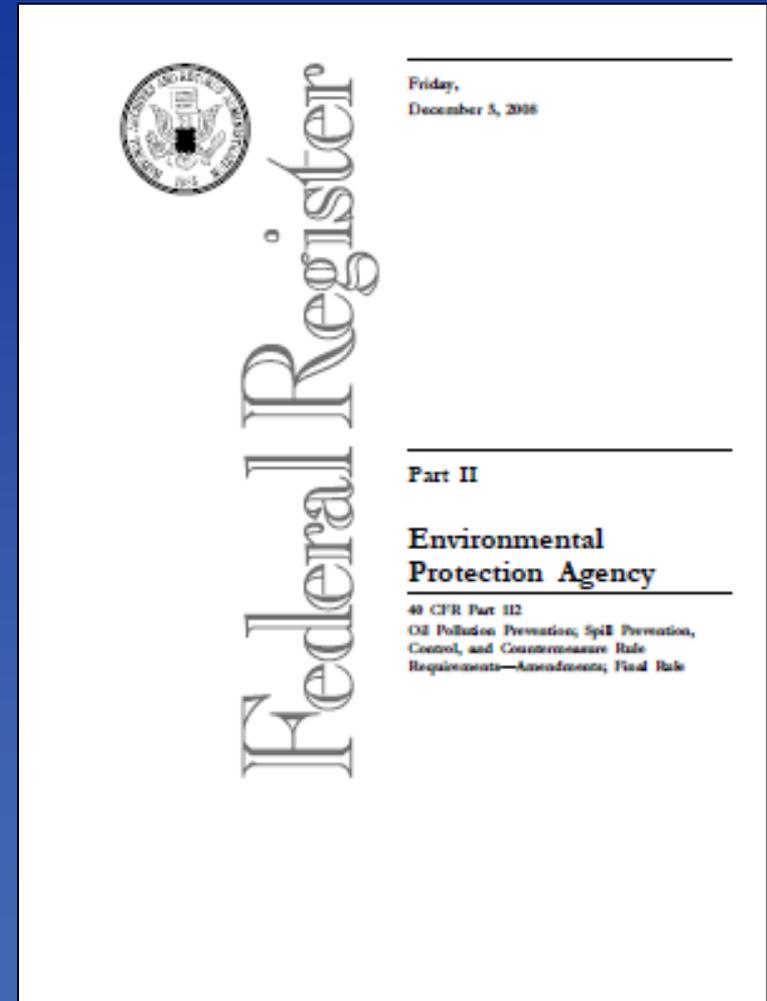
- Issued July 17, 2002; effective August 16, 2002
- Based on three proposals (1991, 1993, 1997)
- Performance-based: provides flexibility in meeting many of the oil discharge prevention requirements
 - Environmental Equivalence
 - Impracticability Determinations
- Includes new subparts outlining requirements for various classes of oil (pursuant to EORRA)
- Amends the requirements for SPCC Plans

2006 Rule Amendments

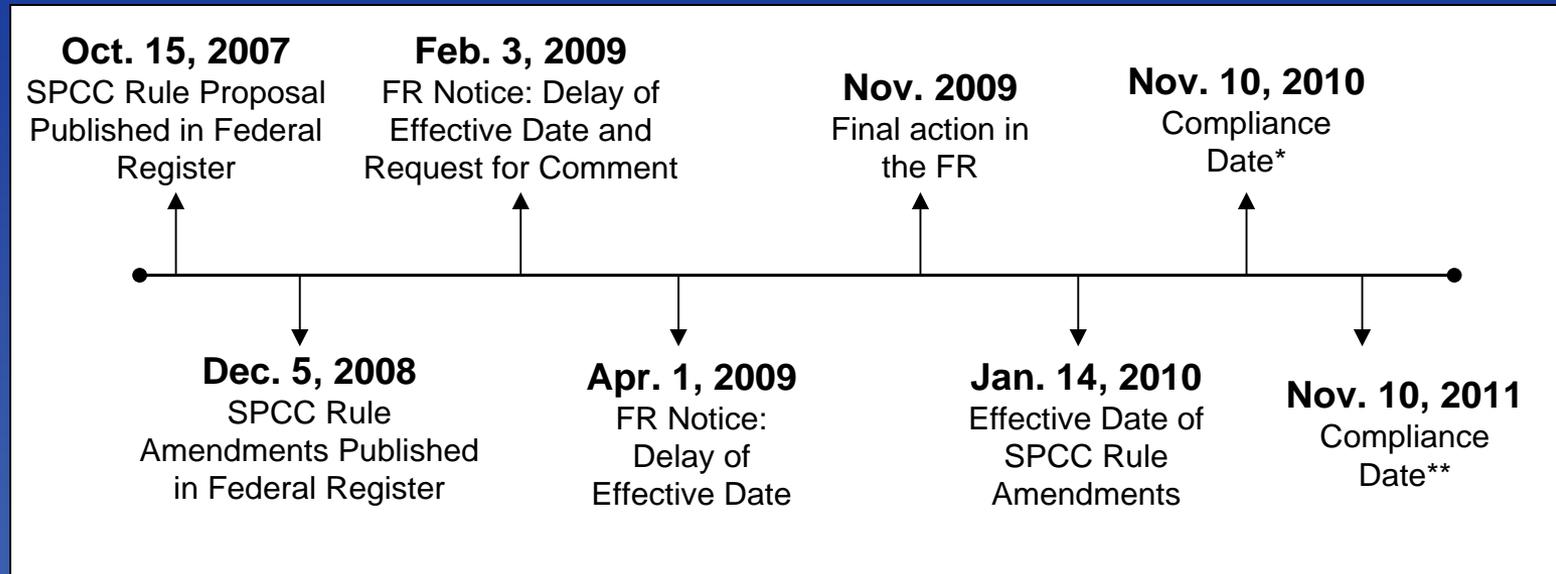
- Streamlined the regulatory requirements
- Brief overview of revised rule provisions:
 - Owners/operators of facilities that have an oil storage capacity of 10,000 gallons or less of oil and meet other qualifying criteria may self-certify their SPCC Plan
 - Alternative to general secondary containment requirement, without requiring a determination of impracticability, for facilities with qualified oil-filled operational equipment and meet other qualifying criteria
 - Defines and exempts motive power containers
 - Exempts mobile refuelers from sized secondary containment requirements for bulk storage containers
 - Removes SPCC requirements for animal fats and vegetable oils
 - Provided an indefinite extension for farms

2008 SPCC Rule Amendments

- Published in the *FR* on December 5, 2008
- *Originally* scheduled to go in effect February 3, 2009
- Addressed areas highlighted in the EPA Regulatory Agenda and the 2005 OMB report “Regulatory Reform of the U.S. Manufacturing Sector”
- Nicknamed “SPCC II”
- Focused on farms and production



2008/2009 Amendments & Compliance Date Timeline



*The November 10, 2010 compliance date applies to drilling, production or workover facilities, including mobile or portable facilities, located offshore or with an offshore component or an onshore facility that is required to have and submit FRPs

**The November 10, 2011 compliance date applies to all other facilities

2009 SPCC Rule Amendments

- **Finalize** certain December 2008 amendments without change
- **Remove** certain provisions from the December 2008 final rule
- Provide **technical corrections** to certain provisions of the December 2008 amendments

December 2008 Provisions Removed from Final Rule

- Exclusion for oil production facilities and farms from loading/unloading rack requirements
- Alternative qualified facility eligibility criteria for an oil production facility
- Exemption for certain produced water containers

Current Status

- The 2008 Amendments became effective **January 14, 2010**
- The 2009 Amendments also became effective **January 14, 2010**
- Therefore, the 2008 and 2009 amendments are **currently in effect**
- **Compliance dates have changed for some facilities**

SPCC Rule Compliance Dates

- “Compliance dates” refer to the deadline for the owner or operator of an SPCC regulated facility to implement post-2002 SPCC requirements.
- The delay of effective date of the 2008 amendments did not impact the compliance date for the SPCC rule provisions.
- Many stakeholders were confused by the two actions changing the effect date of the 2008 rule provisions
- The regulated community thought the compliance date was January 14, 2010 (which was actually the new effective date of 2008 action)
- To further complicate matters, EPA proposed a final action to change the compliance date in early 2009

Part II: Applicability



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

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”



What is a Facility?

Rule definition (§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.**

What the definition means...

- The extent of a “facility” depends on site-specific circumstances. Factors include:
 - 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)



Types of Facilities

Farm- 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.

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

Producing



Criterion #1: Oil-Related Activities



Gathering

AP



Storing

Criterion #1: Oil-Related Activities

Processing





Refining

Transferring



Distributing



Using



Consuming



Criterion #1: Oil-Related Activities

Applicability Criterion #2

2

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

What is Oil?

- “Oil,” defined in §112.2 includes oil of any kind or in any form including, but not limited to:

- Petroleum
- Sludge
- Synthetic Oils
- Mineral Oils
- Oil refuse
- Oil Mixed with wastes other than dredged spoil
- Animal fats, oils, and greases
- Vegetable oils



2

Is this an Oil?

Hazardous Substances and Hazardous Waste (containing oil)



2

Is this an Oil?

Tank of Pure CWA Hazardous
Substances

Benzene



2

Is this an Oil?

Synthetic Oil



Source: <http://image.hotrod.com/f/miscellaneous/hot-rod-synthetic-oil/8419545+cr1+re0+ar1/synthetic-oil.jpg>

Mineral Oil



Source: http://farm4.static.flickr.com/3291/2460105940_5d4e1a9442.jpg?v=0

2

Is this an Oil?

Animal Fats and Vegetable Oils



2

Is this an Oil?

Denatured Ethanol

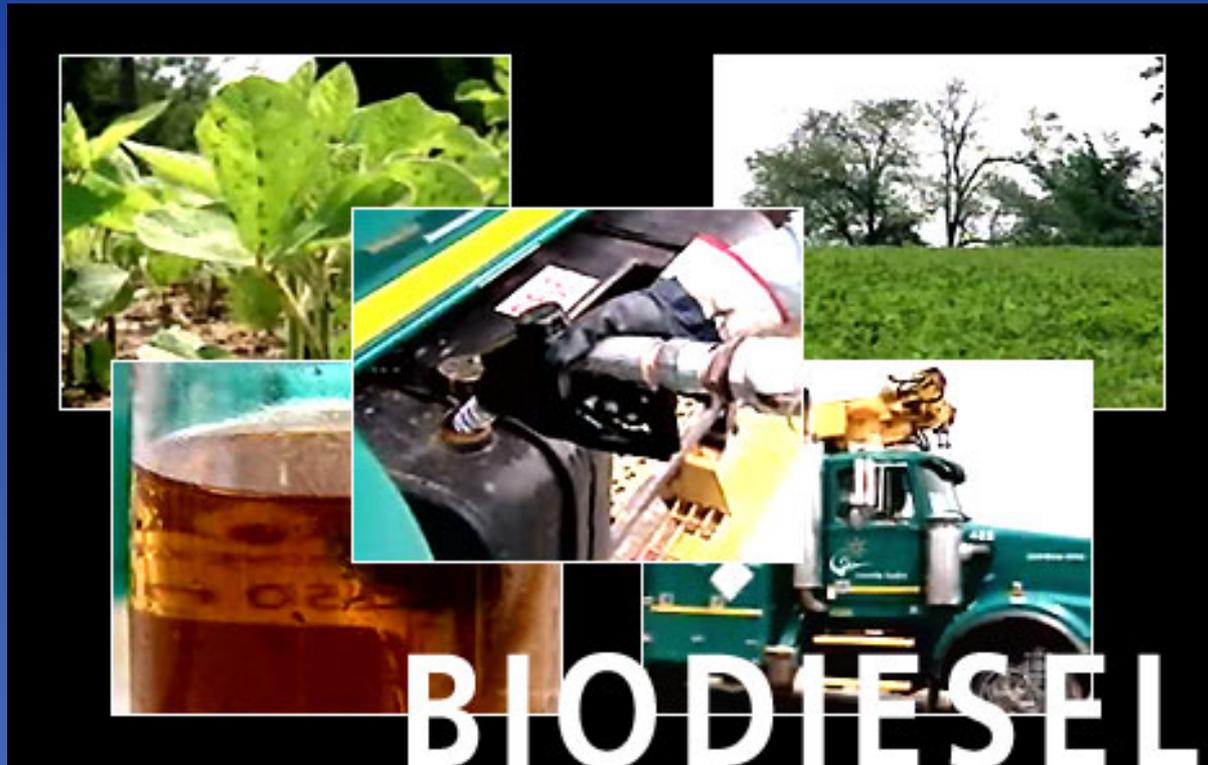


Source: <http://swobodniy.en.ec21.com/>

2

Is this an Oil?

Bio-Diesel



2

Is this an Oil?

Natural Gas



Source : <http://blog.kir.com/archives/natural%20gas%20terminal.jpg>

2

Is this an Oil?

Other oil water
mixtures



Oil based paints



Oil based inks

2

Is this an Oil?

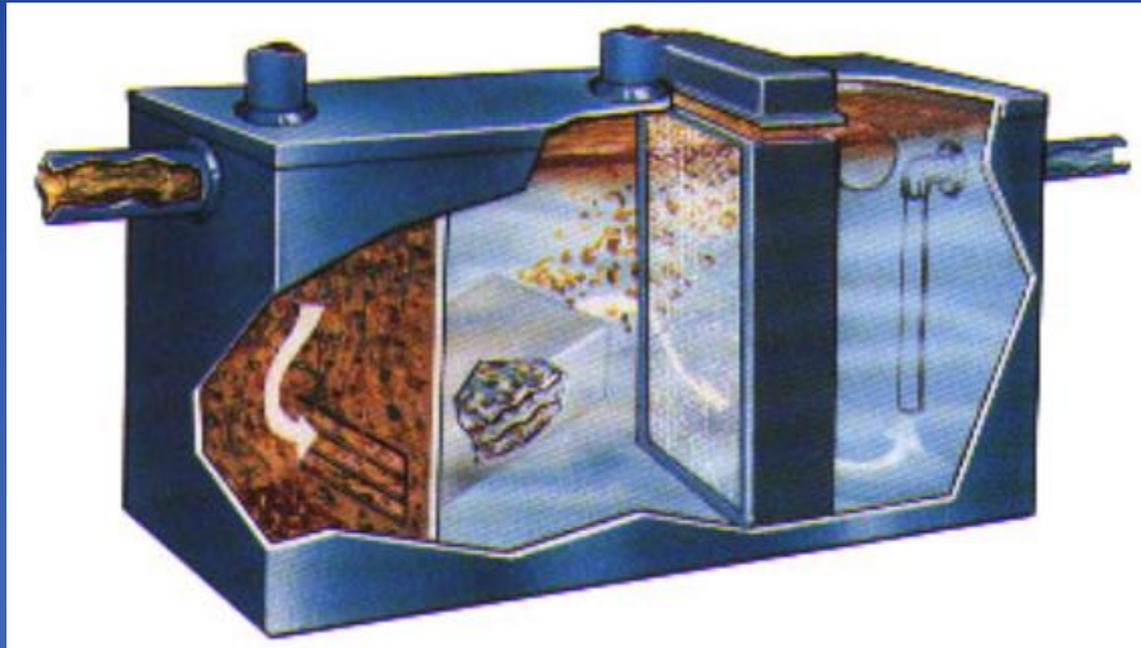
Pesticides



2

Is this an Oil?

Oil/water mixtures



2

Is this an Oil?

Asphalt Cement



Applicability Criterion #3

3

Facility is non-transportation-related.

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

Types of Facilities

- Facilities are divided into three categories:
 - Transportation-related facilities
 - Non-transportation-related facilities
 - Complexes
- Established through a series of Executive Orders (EOs) and Memoranda of Understanding (MOUs)



EOs and MOUs

- **Executive Order 11548** delegated responsibilities for regulating oil discharges (later superseded by E.O. 11735 and 12777)
 - EPA: Non-transportation-related facilities
 - DOT: Transportation-related facilities
- **EPA-DOT MOU (1971)** defines transportation- and non-transportation-related
 - EPA Announced in a recent proposal that it will revisit portions of this MOU, working with DOT to revise the document
- **DOT-DOI-EPA MOU (1994)** establishes responsibilities for offshore facilities, including pipelines

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



Who Has Jurisdiction?



Who Has Jurisdiction?



Tank truck on a highway

Who Has Jurisdiction?



Tank truck within an SPCC facility

Who Has Jurisdiction?



**Railroad car operating
as a storage tank**

**Railroad car filled with
oil for transportation,
before it has reached
final destination**

**Railroad car while
loading**

**Railroad car stopped
briefly on property
but not unloaded**

Who Has Jurisdiction?



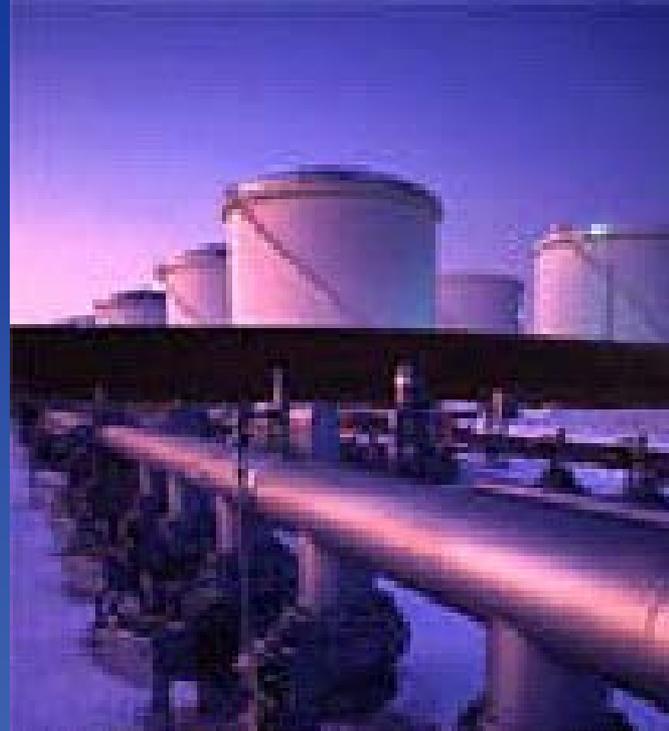
Marine Terminals

Who Has Jurisdiction?



Vessels

Who Has Jurisdiction?



Breakout tanks used solely to relieve surges in a pipeline

Bulk storage container used to store oil while also serving as a breakout tank

Who Has Jurisdiction?



Mobile Refueler

Who Has Jurisdiction?



**Airplane Fuel
Tank**



Airport

Who Has Jurisdiction?



Tanker truck that returns to facility with only residual amounts of oil

Who Has Jurisdiction?



Transfers at Loading Racks

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



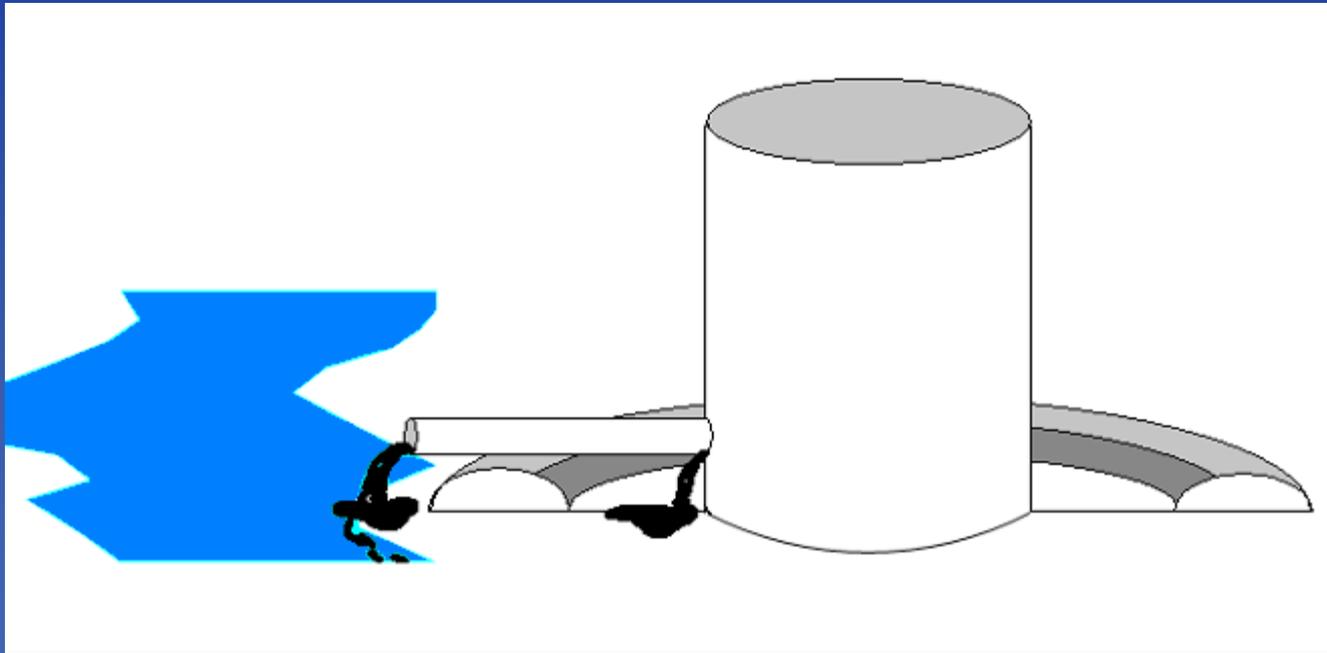
Discharge as described in §112.1(b)

- 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
 - May 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.

Regulatory Definition of “Navigable Waters”

- EPA published a direct final rule to vacate the 2002 revision to the definition of “navigable waters”
 - November 26, 2008 (73 FR 71941)
- In accordance with an order issued by the United States District Court for the District of Columbia
- Ends *American Petroleum Institute v. Johnson* litigation
- The court **restored the previous definition of “navigable waters”** included in the 1973 SPCC rule



Break

Current Regulatory Definition of “Navigable Waters”

- The current term “navigable waters” includes:
 - (1) all navigable waters of the United States, as defined in judicial decisions prior to the passage of the 1972 Amendments of the Federal Water Pollution Control Act, (FWPCA) (Pub. L. 92-500) also known as the Clean Water Act (CWA), and tributaries of such waters as;
 - (2) interstate waters;
 - (3) intrastate lakes, rivers, and streams which are utilized by interstate travelers for recreational or other purposes; and
 - (4) intrastate lakes, rivers, and streams from which fish or shellfish are taken and sold in interstate commerce.

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

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



Tank Re-Rating

- Shell capacity should be used as the measure of storage capacity, unless changes are made to the design shell capacity (shell dimensions) in a permanent, non-reversible manner
- Even certain modifications, (e.g., modifying a vent, overflow, or other tank appurtenance that reduce the working fill capacity) does not allow the tank to be re-rated to a lower capacity
- A permanent change to the container such as the installation of a double bottom may change 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

Underground Storage Tanks

- SPCC rule exempts:
 - Underground storage tanks that are completely buried and regulated under 40 CFR 280 and 281
 - Connected underground piping
 - Underground ancillary equipment and containment systems

When such tanks are subject to all of the technical requirements of 40 CFR part 280 or a state program approved under 40 CFR part 281

- These tanks must still be marked on the facility diagram if the facility is otherwise subject to the SPCC rule (§112.7(a)(3))

Wastewater Treatment Exemption

- Excludes from the SPCC requirements:
 - Facilities or parts of facilities that are used exclusively for wastewater treatment, and that are not used to meet 40 CFR part 112 requirements
- Does not exclude:
 - Production, recovery, or recycling of oil
 - A wastewater treatment facility or part thereof that is used:
 - To store oil
 - To meet a 40 CFR part 112 requirement (e.g., general secondary containment)

Motive Power

- Any onboard bulk storage container used primarily to power the movement of a motor vehicle, or ancillary onboard oil-filled operational equipment
- Examples: automotive, airplane, or truck fuel tanks
- An onboard bulk storage container which is used to store or transfer oil for further distribution is not a motive power container

Motive Power Containers

- Motive power containers are exempted from SPCC rule
- Oil transfer activities occurring within an SPCC-regulated facility continue to be regulated
 - Transfer of oil from an otherwise SPCC regulated facility's AST gas pump into an automobile
 - Transfer of oil from an otherwise SPCC regulated facility's airport mobile refueler into an airplane



Hot-Mix Asphalt

- Hot-Mix Asphalt (HMA) and HMA containers are exempt from the SPCC rule.
 - Includes general rule applicability and capacity calculation requirement
- HMA is unlikely to reach navigable waters or adjoining shorelines.
 - EPA never intended HMA to be included as part of a facility's SPCC Plan
- The RA would continue to have the authority to require an SPCC Plan, if necessary.



Pesticide Application Equipment

- Pesticide application equipment and related mix containers are exempt.
- Pesticide application equipment includes:
 - Ground boom applicators
 - Airblast sprayers,
 - Specialty aircraft that are used to apply measured quantities of pesticides to crops and/or soil.
 - Related mix containers
- Related mix containers are those used to mix pesticides with water and, as needed, adjuvant oils, just prior to loading into application equipment.



Residential Heating Oil

- Residential heating oil containers at single-family residences are exempt from the SPCC rule.
 - Includes general rule applicability and capacity calculation requirement
- Applies to containers that are:
 - Aboveground or completely buried
 - Located at a farm or other single-family residences
 - Used solely to store heating oil used to heat the residence



- SPCC requirements continue to apply to oil containers used to heat other non-residential buildings within a facility.

Underground Storage Tanks at Nuclear Power Generation Facilities

- EPA is exempting USTs that:
 - are deferred under 40 CFR part 280,
 - supply emergency diesel generators at nuclear power generation facilities licensed by Nuclear Regulatory Commission (NRC), and
 - meet the NRC design criteria and quality assurance criteria.
- This exemption includes both tanks that are completely buried and tanks that are below-grade and vaulted (but can't be visually inspected).
- NRC sets certain criteria to cover the design, fabrication, installation, testing and operation of structure, systems, and components.
 - Requirements may be similar or more stringent than those associated with the SPCC rule.
- Certain actions necessary to comply with SPCC rule could be impracticable at NRC facilities.
- This exemption was finalized in 2008, and the 2009 amendment made technical corrections to the language related to this exemption.



Part III: SPCC Requirements Overview



§112.2 Definitions: Containers

Bulk storage container – any container used to store oil. These containers are used for purposes including, but not limited to, the storage of oil prior to use, while being used, or prior to further distribution in commerce. **Oil-filled electrical, operating, or manufacturing equipment is not a bulk storage container.**

Breakout tank – a container used to relieve surges in an oil pipeline system or to receive and store oil transported by a pipeline for reinjection and continued transportation by pipeline.

Containers

(continued)

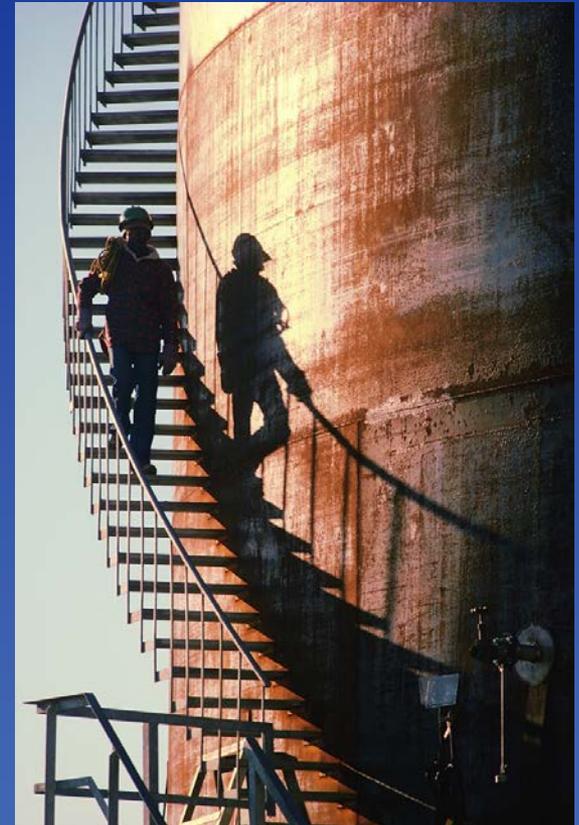
Completely buried tank – completely below grade and covered with earth, sand, gravel, asphalt, or other material. Containers in vaults, bunkered tanks, or partially buried tanks are considered aboveground storage containers for purposes of this part.

Partially buried tank – a storage container that is partially inserted or constructed in the ground, but not entirely below grade, and not completely covered with earth, sand, gravel, asphalt, or other material. A partially buried tank is considered an aboveground storage container for purposes of this part.

Bunkered tank – a container constructed or placed in the ground by cutting the earth and re-covering the container in a manner that breaks the surrounding natural grade, or that lies above grade, and is covered with earth, sand, gravel, asphalt, or other material. A bunkered tank is considered an aboveground storage container for purposes of this part.

§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



Current Compliance Dates

A facility, including a mobile or portable facility, starting operation...	Would be required to...
On or before August 16, 2002	<ul style="list-style-type: none"> • Maintain its existing SPCC Plan • Amend and implement the SPCC Plan no later than Nov. 10, 2011
After August 16, 2002 through Nov. 10, 2011	<ul style="list-style-type: none"> • Prepare and implement the SPCC Plan no later than Nov. 10, 2011
After Nov. 10, 2011 (excluding production facilities)	<ul style="list-style-type: none"> • Prepare and implement a SPCC Plan before beginning operations
After Nov. 10, 2011 (production facilities)	<ul style="list-style-type: none"> • Prepare and implement a SPCC Plan within six months after beginning operations * <p>* Owners or operators of new oil production facilities must prepare and implement an SPCC Plan six months after the start of operations.</p>

- The compliance date extension was signed by the Administrator on October 7, 2010

Current Compliance Dates

A drilling, production or workover facility, including a mobile or portable facility, located offshore or with an offshore component or an onshore facility that is required to have and submit FRPs starting operation...	Would be required to...
On or before August 16, 2002	<ul style="list-style-type: none"> • Maintain its existing SPCC Plan • Amend and implement the SPCC Plan no later than Nov. 10, 2010
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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 in Part IV: Focus on Qualified Facilities
 - **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

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

Timeframe for RA Amendment

- EPA proposes for facility to amend Plan
 - Facility has 30 days to respond with written information, views, arguments
- RA either notifies facility of required amendments or rescinds notice
 - Amend Plan within 30 days, implement ASAP but no later than 6 months, unless RA specifies otherwise
 - Appeal within 30 days; EPA decides within 60 days

§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

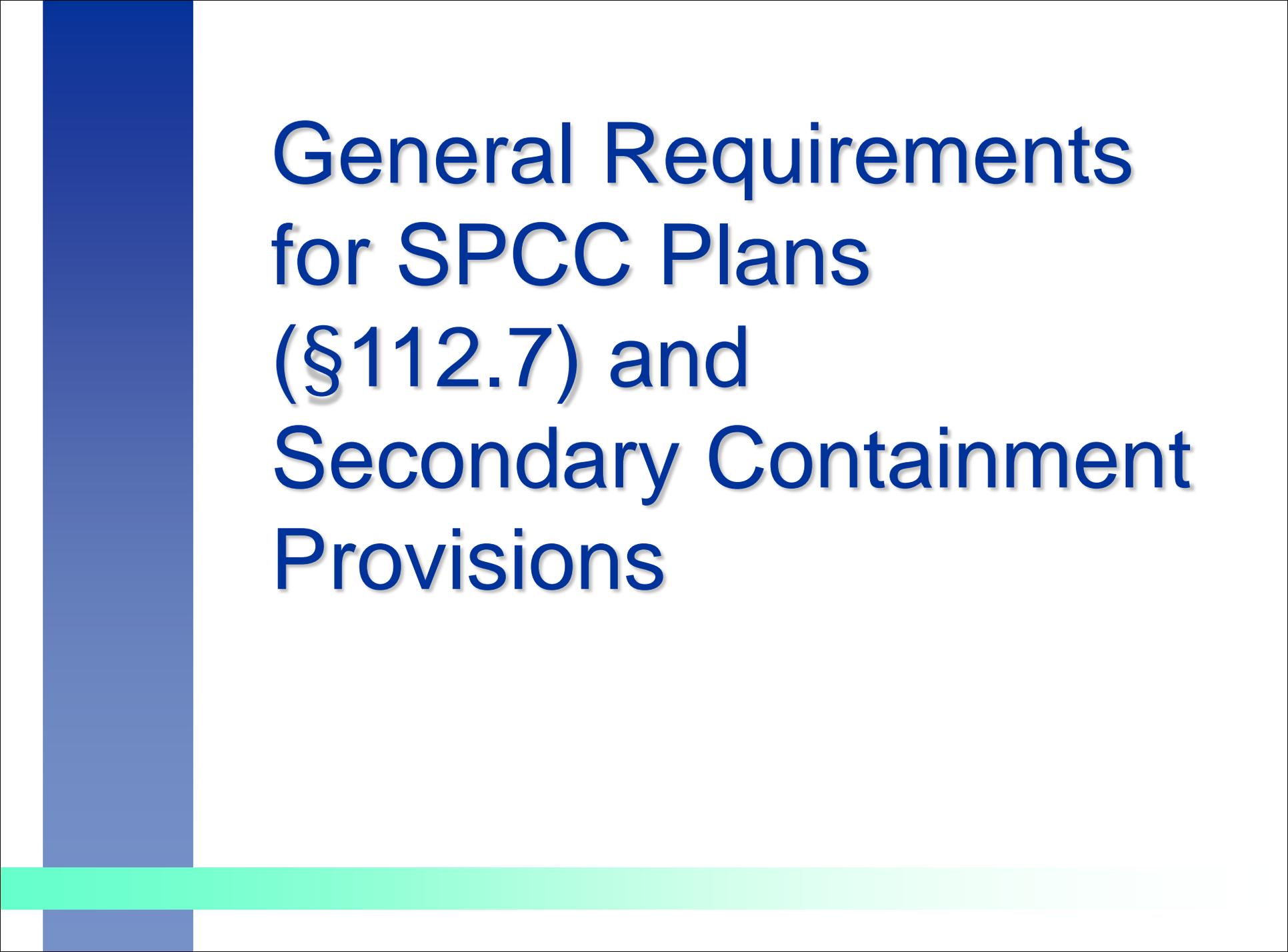
Documenting Plan Review

- 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 would divide this group of facilities into tiers

This topic will be discussed further in Section IV: Focus on Qualified Facilities



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

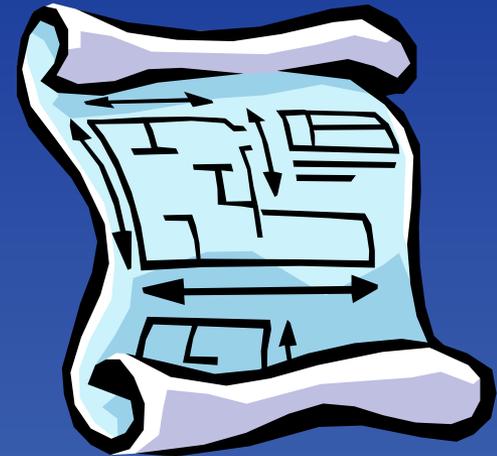
§112.7 General Requirements for SPCC Plans

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



Environmental Equivalence

“Your Plan may deviate from the [... technical requirements ...], except the secondary containment requirements [...] if you provide **equivalent environmental protection** by some other means of spill prevention, control, or countermeasure.”

Eligible Provisions

- Provisions subject to EE include, but are not limited to:
 - Facility security: §112.7(g)
 - Loading/unloading racks: §112.7(h), except for secondary containment in subparagraph (1)
 - Brittle fracture evaluation: §112.7(i)
 - Subparts B and C, except the secondary containment requirements

Provisions Not Eligible

- Secondary containment provisions are NOT subject to EE
 - General: §112.7(c)
 - Loading/unloading rack: §112.7(h)(1)
 - Bulk storage containers: §112.8(c)(2), §112.9(c)(2)
 - Onshore Oil Drilling and Workover Facilities: §112.10(c)
- If secondary containment is not practicable, owner/operator must meet the requirements of §112.7(d)

Provisions Not Eligible (continued)

- Also NOT Subject to EE:
 - General administrative requirements (e.g., definitions, requirement to have a Plan): §112.1 through §112.5
 - Description of the facility (e.g., facility diagram): §112.7(a)(3)
 - Documentation / Recordkeeping: §112.7(e)
 - Discussion of conformance with applicable more stringent state rules, regulations, and guidelines: §112.7(j)
 - Training
 - Employee training, identity of person accountable for discharge prevention at the facility: §112.7(f)

Items to Address in the Plan

- Type of oil in each container and its storage capacity
- Discharge prevention measures including procedures for routine handling of products
- Discharge or drainage controls
- Countermeasures for discharge discovery, response, and cleanup
- Methods of disposal of recovered materials
- Contact list and phone numbers (including NRC)
- If no FRP, then:
 - Information for reporting
 - Organize portions of the Plan describing procedures for when a discharge occurs to make them readily available during emergency

Facility Diagram

- Supplements facility description, which may include facility location, type, size, and proximity to navigable waters, etc.
- Include completely buried tanks that are otherwise exempted from the rule
- Provide enough detail to undertake prevention activities, perform inspections, and take response measures

Facility Diagram

Required elements:

- The location and contents of oil containers (>55 gallons)
- Completely buried tanks otherwise exempt
- Connecting piping
- Transfer stations



Recommended elements:

- Secondary containment
- Storm drain inlets and surface waters
- Direction of flow in the event of a discharge
- Legend – scale and symbols
- Location of response kits and firefighting equipment
- Location of valves or drainage system controls
- Compass direction
- Topographical information and area maps

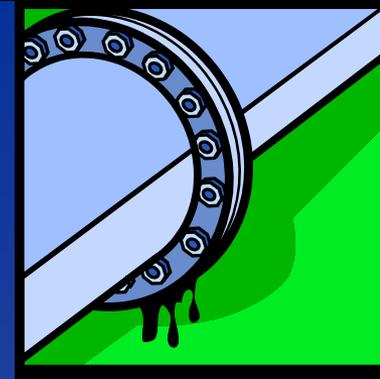
Facility Diagram Requirement

- Revision clarifies that the facility diagram must include all *fixed* (i.e., not mobile or portable) containers.
- For mobile or portable containers, the diagram must:
 - Identify a storage area on the facility diagram (e.g., a drum storage area).
 - Include a separate description of the containers in the storage area in the Plan, or reference facility inventories that can be updated by facility personnel.
 - Provide an estimate of the potential number of containers, types of oil, and anticipated capacities

Exempt Containers and Piping

- Certain containers and piping, exempted from SPCC requirements in the 2008 amendments, must be identified on the facility diagram and marked as “exempt.” Includes:
 - Underground storage tanks at nuclear power generation facilities; and
 - Intra-facility gathering lines subject to the requirements of 49 CFR part 192 or 195

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



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

Sufficiently Impervious *(continued)*

- “A complete description of how secondary containment is designed, implemented, and maintained to meet the standard of sufficiently impervious is necessary” (67 FR 47102)
- Based on good engineering practice
- Consider site-specific factors
- The plan should describe how the design effectively contains oil until cleanup occurs

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

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

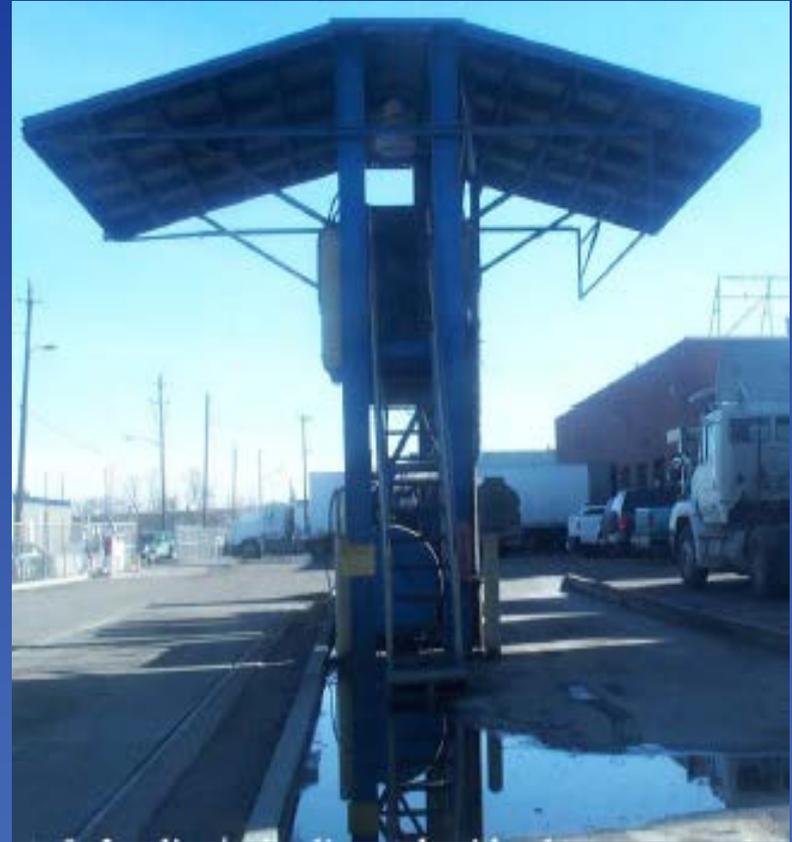
Facility Security

- 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



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

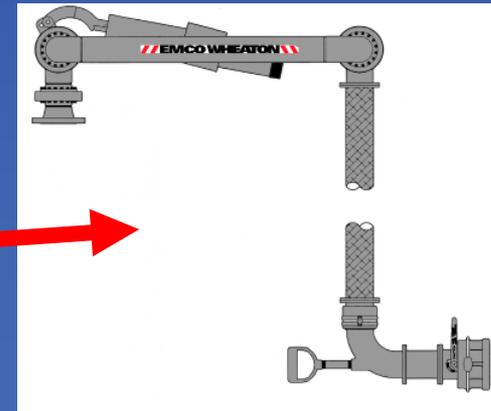
- Term “rack” replaces “area” throughout §112.7(h) requirement.
 - Provides clarity on applicability of the provision.



Loading Arm



Look for the loading arm

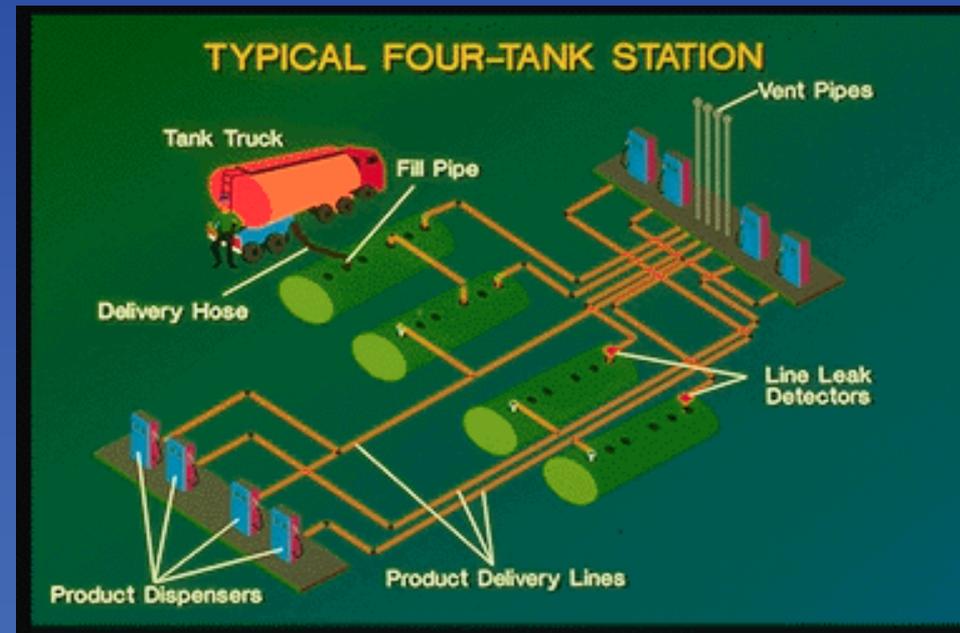


Exclusion from Loading Rack Provision Removed in 2009

- The 2008 amendments specifically excluded onshore oil production facilities and farms from the loading/unloading rack requirements at §112.7(h), because racks are not typically associated with these types of facilities
- **This exclusion was removed in the 2009 amendments**
- No basis to specifically exclude loading/unloading racks from the requirements at §112.7(h) simply because they are not typically associated at a facility within a specific industry sector.
- The new definition for loading/unloading rack clarifies the type of equipment that is subject to the requirements at §112.7(h), eliminating uncertainty
- For facilities (including farms and oil production facilities) that do not have a loading/unloading rack, the provisions at §112.7(h) do not apply; therefore, a specific exclusion is unnecessary.

UST Oil Transfer Clarification

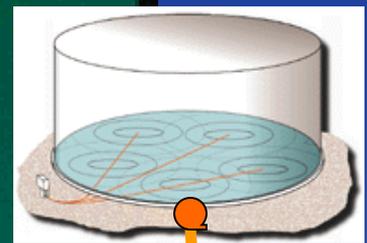
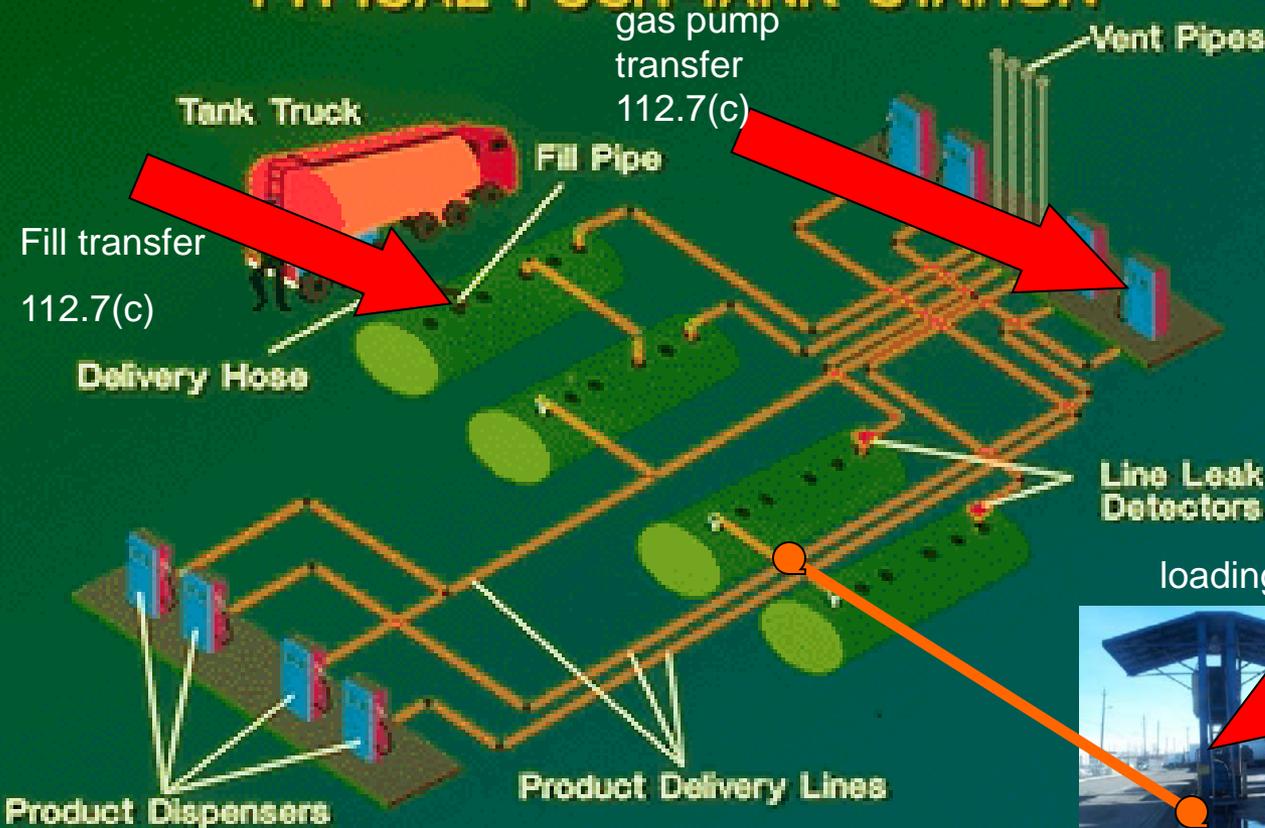
- Clarification corrects preamble language in the 2002 amendments inconsistent with the Agency's position regarding transfer activities from exempt containers.
- Transfer activities associated with an exempt UST, at an otherwise regulated SPCC facility, are covered and must be addressed in the SPCC Plan.
 - If transfer to or from an exempt UST occurs across a loading/unloading rack then facility must comply with §112.7(h)
 - All other transfers/equipment (dispensers) must be addressed and meet general containment requirements
 - Dispensers and racks are not part of an UST system and therefore SPCC-regulated



SO WHAT DOES THIS MEAN?

At an otherwise regulated SPCC facility

TYPICAL FOUR-TANK STATION

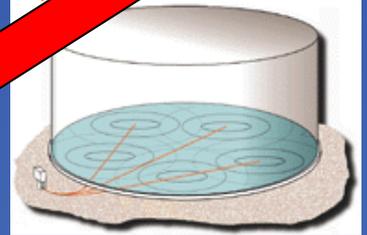


1,000,000 gallon
AST

Bulk plant
not
connected to
UST



loading rack



Loading
rack
transfer
112.7(h)

1,000,000 gallon
AST

The Following transfers to or from the UST system would be regulated under the SPCC rule

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

Tier Options for Qualified Facilities Self-Certification

- Facilities must first qualify for this option
 - Clean spill History
 - 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
 - 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



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.





NAME THAT TANK....FOR \$1,000

Convert-a-zontals



Break

Regularly Scheduled Integrity Testing

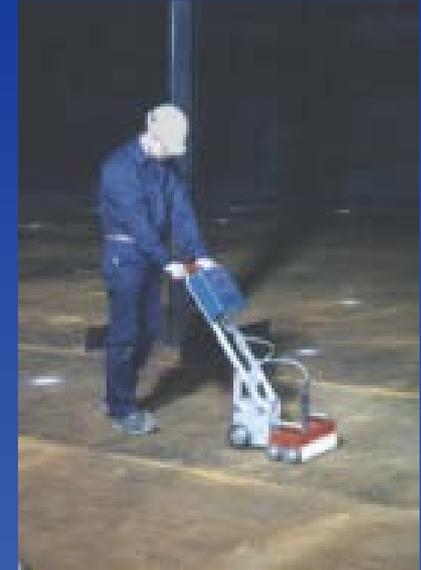
- Applies to:
 - Large (field-constructed or field-erected) and small (shop-built) aboveground bulk storage containers
 - Aboveground bulk storage containers on, partially in (partially buried, bunkered, or vaulted tanks) and off the ground wherever located
 - Aboveground bulk storage containers storing 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







YOU FIX THE AST...





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

§§112.8(c)(4) and 112.12(c)(4)



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

Overflow 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)



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Effluent Treatment Facilities

- Frequently observe effluent treatment facilities to detect possible system upsets that could cause a discharge



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

UNLEADED

UNLEADED

DIESEL

DIESEL

DIESEL



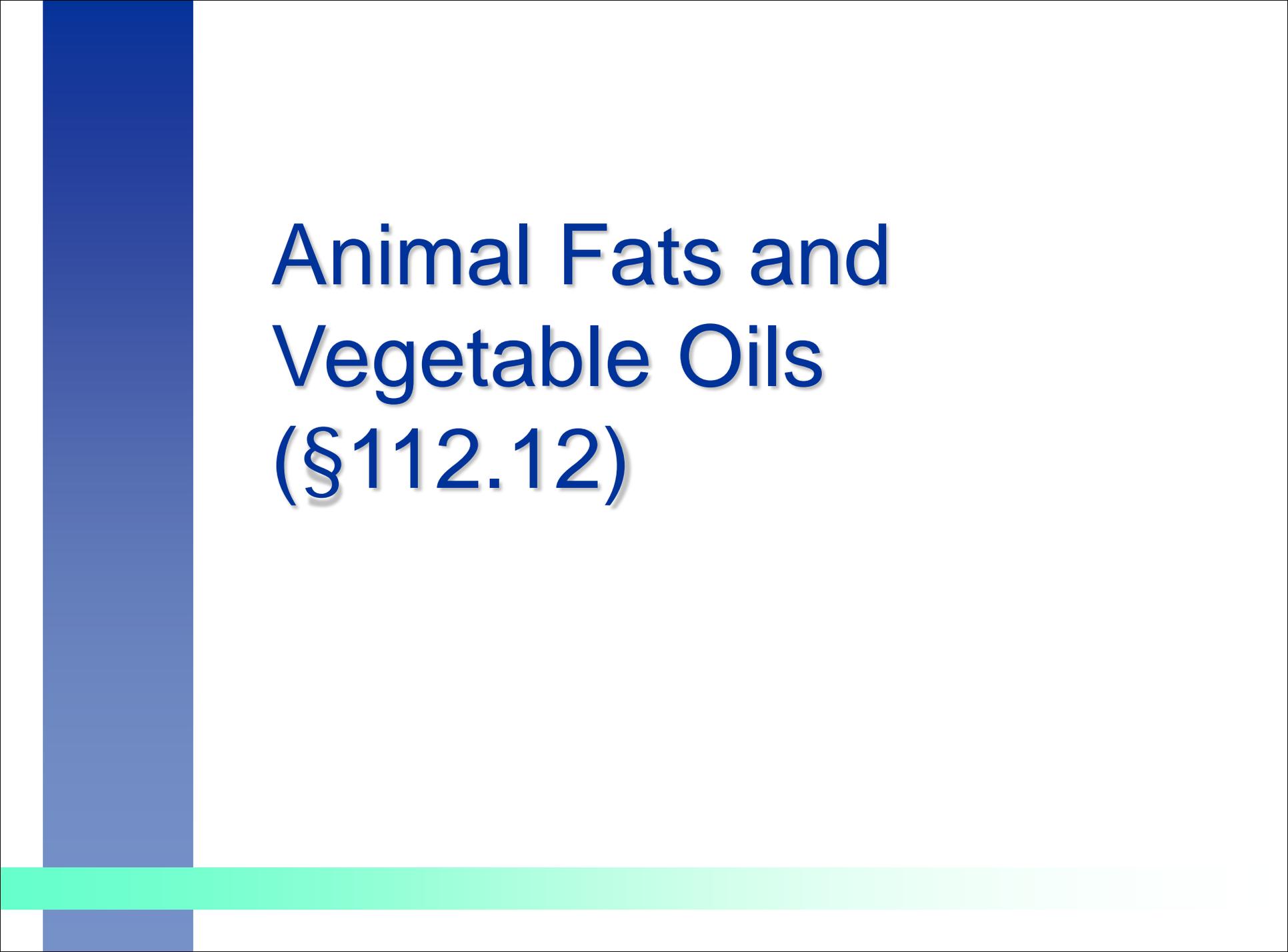
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**2008 WINNER OF
BEST STICK IN A
SUPPORTING
ROLE**





Animal Fats and Vegetable Oils (§112.12)

§112.12 Animal Fats and Vegetable Oils

- Outlines specific requirements (in addition to general requirements in §112.7) for facilities with animal fats and oils and greases, and fish and marine mammal oils; and for vegetable oils, including oils from seeds, nuts, fruits, and kernels regarding:
 - Facility drainage
 - Bulk storage containers
 - Facility transfer operations, pumping, and facility process

Differentiated Integrity Testing Requirements for AFVOs

- Facility owner or operator is required to document procedures for inspections and testing in the SPCC Plan.
- Flexibility to use a visual inspection program for integrity testing that is appropriate for containers that store AFVOs that meet certain criteria



Eligibility Criteria

- Differentiated integrity testing requirements apply to bulk storage containers that:
 - Are subject to the applicable sections of the Food and Drug Administration (FDA) regulation 21 CFR part 110, *Current Good Manufacturing Practice in Manufacturing, Packing or Holding Human Food*;
 - Are elevated;
 - Are made from austenitic stainless steel;
 - Have no external insulation; and
 - Are shop-built.
- AFVO containers that meet the eligibility criteria already have environmentally equivalent measures in place for integrity testing.
 - Owners/operators do not need to state reasons for nonconformance with the current integrity testing requirements.

Oil Production, Drilling and Workover Facility Requirements Overview



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



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





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, 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 overflow 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

Exemption for Certain Gathering Lines

- Gathering lines that are subject to the DOT regulatory requirements at 49 CFR parts 192 or 195 are exempt from the SPCC requirements.
 - Exemption is for intra-facility gathering lines present at a facility where the piping is subject to both EPA and DOT jurisdiction and regulations.

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 §11 program of flowline



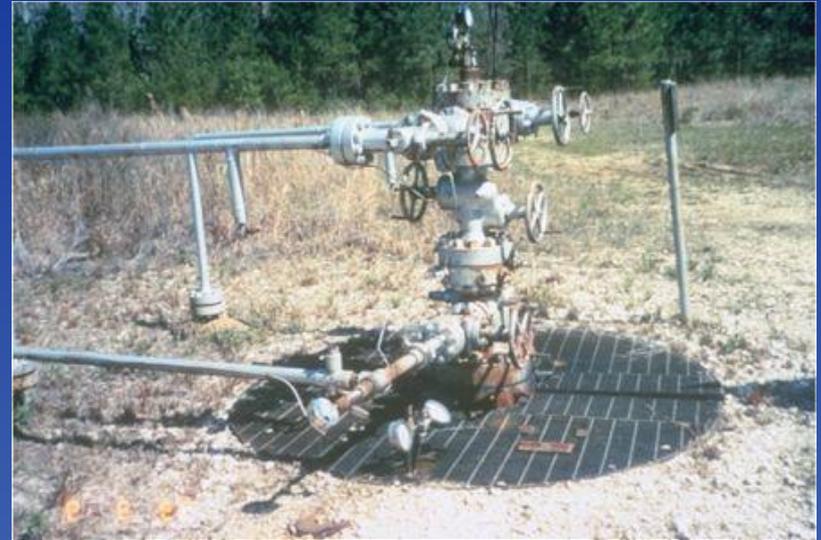
Flow and Intra-Facility Gathering Line Maintenance Program

- 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, bleed-down systems



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

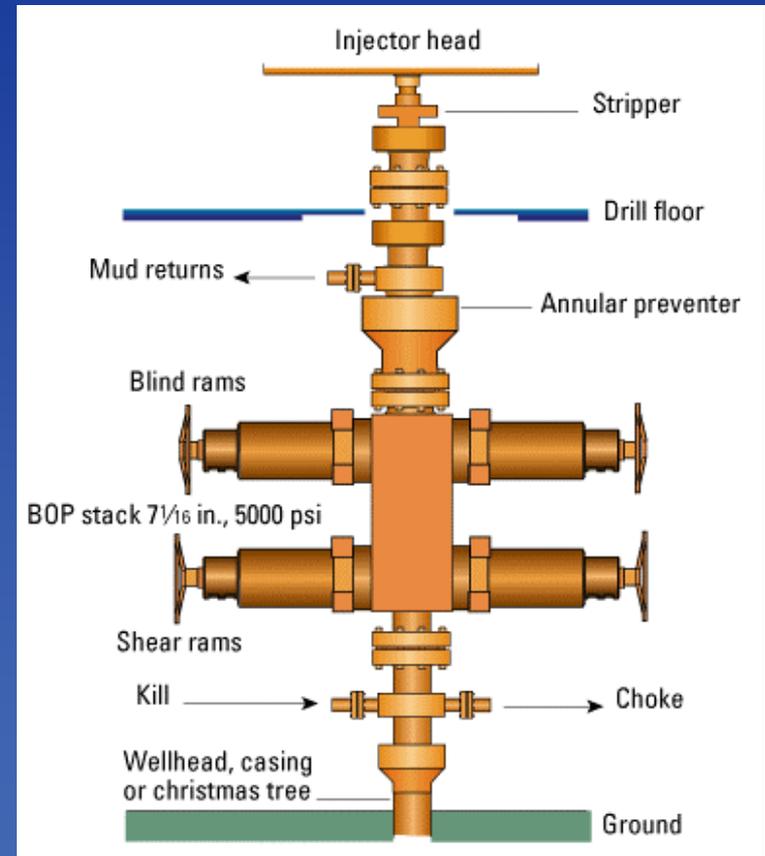
- No specific sizing requirement, and no freeboard requirement for secondary containment



§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



§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

Part IV.

Focus on

Qualified Facilities

§§112.3(g), 112.6 and Appendix G



Qualified Facility – An Overview

- A qualified facility is a 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
 - Streamlined integrity testing requirements
 - Streamlined facility security requirements
- Must meet eligibility criteria
- EPA's recent amendments would divide this group of facilities into tiers
 - Requirements described here would apply to “Tier II” facilities
 - Additional relief would be provided to “Tier I”

Eligibility Criterion #1: Storage Capacity

- Facility must have **10,000 gallons or less** in aggregate aboveground oil storage capacity
- Will lose eligibility if facility increases capacity $> 10,000$ gallons

Eligibility Criterion #2: Reportable Discharge History

- For the 3 years prior to Plan certification, or since becoming subject to the rule if it has operated for less than 3 years, the facility must not have had:
 - A single discharge of oil to navigable waters or adjoining shorelines exceeding 1,000 U.S. gallons, or
 - Two discharges of oil to navigable waters or adjoining shorelines each exceeding 42 U.S. gallons within any 12-month period.

What is counted?

- When determining the applicability of this criterion, the gallon amount(s) specified (either 1,000 or 42) refers to the amount of oil discharge that actually reaches navigable waters or adjoining shorelines, not the total amount of oil spilled.
- Oil discharges that result from natural disasters, acts of war, or terrorism are not included.
- Oil discharges that result from vandalism are included.

What if they have a spill?



- Facilities that have a reportable oil discharge after self-certifying the SPCC Plan do not automatically lose eligibility
 - However, the Regional Administrator has the authority to require a Plan amendment

How often is this determined?

**** Discharge history criterion is a one-time determination! ****

(A “snap shot” of a facility’s compliance history)



Facilities do not require a re-assessment of eligibility following a technical change to the Plan or 5-year review.

Self-Certification

- In lieu of a PE-certification, the owner/operator must self-certify the facility's SPCC Plan.
- Owner/operator attests that he/she is familiar with the SPCC rule and has visited and examined the facility.



Self-Certification Attestation

- Owner/operator also certifies that:
 - The Plan has been prepared in accordance with accepted and sound industry practices and standards and with the rule requirements.
 - Procedures for required inspections and testing have been established.
 - The Plan is being fully implemented.
 - The facility meets the qualifying criteria.
 - The Plan does not deviate from rule requirements except as allowed and as certified by a PE.
 - Management approves the Plan and has committed resources to implement it.

“The Hybrid Plan”

- An owner/operator may not use environmentally equivalent measures and make impracticability determinations,
 - *unless reviewed and certified by a PE*
- This is referred to as a “hybrid” Plan

Technical Amendments

- Owner/operator may self-certify technical amendments as long as a PE has not certified the portion being changed.
- If a PE certified the affected portion of the Plan (i.e., for a hybrid Plan), then a PE must certify the technical amendment.

Tier I Qualified Facilities

- EPA's 2008 amendments create a subset of Qualified Facilities.
 - Facilities meeting the criteria described earlier are “Tier II” qualified facilities.
 - Facilities meeting additional criterion are “Tier I” qualified facilities and are subject to further streamlined requirements.
- The 2009 rule amendments provide clarifications to the rule language associated with this set of facilities, and corrections of typographical and formatting errors in the Tier I template.

Eligibility Criteria

- Meet the Tier II qualified facility eligibility criteria:
 - 10,000 gallons or less in aggregate aboveground oil storage capacity
 - For the 3 years prior to Plan certification, or since becoming subject to the rule if it has operated for less than 3 years, the facility must not have had:
 - A single discharge of oil to navigable waters exceeding 1,000 U.S. gallons, or
 - Two discharges of oil to navigable waters each exceeding 42 U.S. gallons within any 12-month period
- ***- AND -***
- Maximum individual oil storage container capacity of 5,000 U.S. gallons

Why are Tier I QFs Unique?

- “Tier I qualified facilities” have:
 - The least complicated operations and facility characteristics
 - May have few low capacity oil containers and some mobile/portable containers, few oil transfers, little to no piping.

Streamlined Requirements

- A Tier I qualified facility would have the option to complete an **SPCC Plan template** (in Appendix G to 40 CFR part 112) in lieu of a full SPCC Plan.
- The choice for Tier I or Tier II is optional if the qualifying criteria are met.
- The 2009 rule amendments provided corrections of typographical and formatting errors on the Tier I template, and removed language on the template associated with the provisions that were removed from the rule.

Template

- Template is designed to be a simple SPCC Plan.
 - Includes only the requirements that should apply to this tier of regulated facilities.
 - Eliminates and/or modifies certain requirements and provisions that generally do not apply to facilities that store or handle smaller volumes of oil.
- Template is found in **Appendix G** to the SPCC rule.

Tier I Template

- Available at:

<http://www.epa.gov/osweroe1/content/spcc/tier1temp.htm>

Ver. 14-pd/5-18-10

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.

SPCC Guidance for Regional Inspectors

- Last released in December 2005
- Currently in the process of being updated
- Available at:

http://www.epa.gov/osweroe1/content/spcc/spcc_guidance.htm#Content

Any Questions?

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