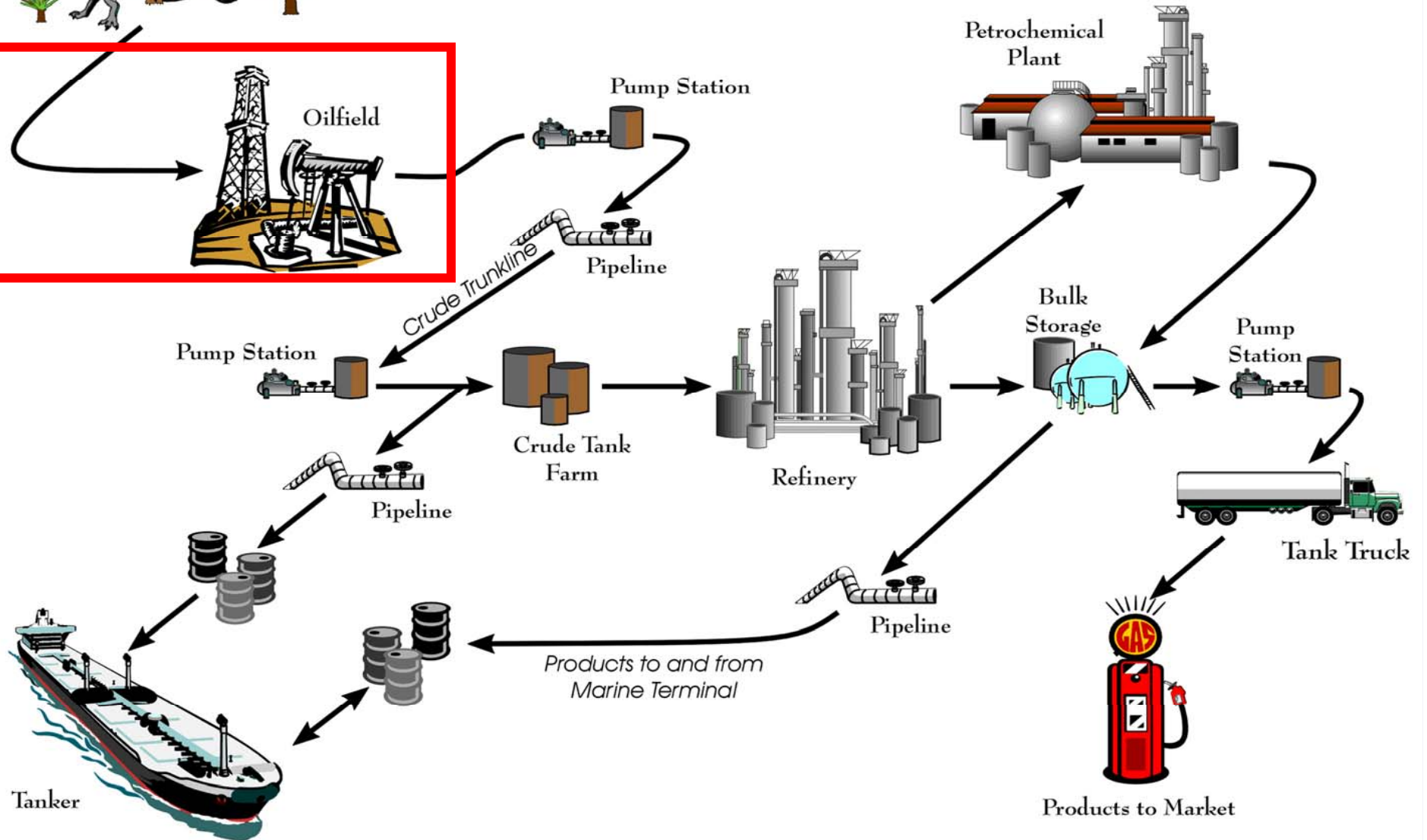
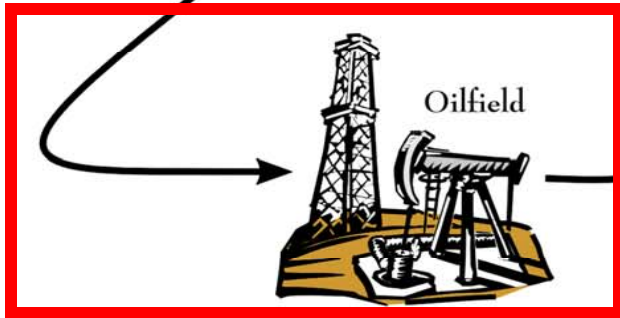


Sections 112.9 SPCC Plan Requirements for Onshore Oil Production Facilities



OIL PRODUCTION AND TRANSPORTATION SYSTEM

...in the beginning



Sections 112.2 Oil Production Facilities



§ 112.9

SPCC Requirements for Onshore Oil Production Facilities

If you are the owner or operator of an onshore production facility, you must:

- (a) Meet the general requirements for the Plan listed under 112.7, and the specific discharge prevention and containment procedures listed in this section.**

Facility

For purposes of determining applicability of the Facility Response Plan regulation at 40 CFR 112.20(f)(1), the definition of facility in 112.2 may be used for both non-production and production facilities.

Qualified Facilities

Production facilities can also be qualified facilities if the total oil storage capacity does not exceed 10,000 and they have not had discharges exceeding the required amounts.

SPCC Requirements For Onshore Production

§ 112.9 (b) Facility Drainage

- (1) Close and seal at all times drains of dikes or equivalent measures required by §112.7(c)(1), except when draining uncontaminated rainwater.**

Remove accumulated oil on the rainwater and return it to storage or dispose of it in accordance with legally approved methods.











SPCC Requirements For Onshore Production

§ 112.9 (b) Facility Drainage

- (2) Inspect at regularly scheduled intervals field drainage systems (such as drainage or road ditches) and oil traps, sumps, or skimmers, for accumulations of oil.**

Promptly remove any accumulations of oil.













SPCC Requirements For Onshore Production

§ 112.9 (c) Bulk Storage Containers

- (1) Material and construction are compatible with the material stored and conditions of storage**





SPCC Requirements For Onshore Production

§ 112.9 (c) and 112.13(c) Bulk Storage Containers

- (2) Provide all tank battery, separation, and treating facility installations with a secondary means of containment for the entire capacity of the largest single container and sufficient freeboard to contain precipitation.**

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

- If secondary containment is impracticable, owners or operators of unmanned facilities may need to determine how to **effectively** implement a contingency plan.
 - This may involve additional site inspections, or some other method as determined appropriate by a Professional Engineer.

Contingency Plan

Prepare an oil spill contingency plan with all elements described in 40 CFR Part 109; and

Provide a written commitment of manpower, equipment, and materials to control and remove any harmful quantity of oil discharged.

Elements of a Contingency Plan

- * **Authorities, responsibilities, and duties of all persons, organizations, or agencies involved in removal operations**

- * **Notification procedures for the purpose of early detection and timely notification of an oil discharge:**
 - **Critical water use areas**
 - **List of names/telephone numbers/addresses of responsible persons;**
 - **Reliable and interconnectible communications**
 - **Procedures for requesting assistance.**

Elements of a Contingency Plan

- * **Provisions to ensure that full resource capability is known and can be committed during an oil discharge:**
 - Identification and inventory of equipment, materials and supplies;
 - Estimate of equipment, materials and supplies required for anticipated maximum oil discharge;
 - Development of agreements/arrangements for obtaining required equipment, materials and supplies.

Elements of a Contingency Plan

- * Provisions for well-defined and specific actions to be taken after discovery and notification of an oil discharge:
 - Oil response operating team of trained, prepared and available operating personnel;
 - Properly qualified oil discharge response coordinator with responsibility and authority for directing and coordinating response operations and who knows how to request assistance;
 - Preplanned location for a oil response operations center and reliable communications system for directing response operations;
 - Provisions for varying degrees of response effort based upon the severity of the discharge;
 - Specification of the order of priority for protection of water uses

Elements of a Contingency Plan

- * Procedures to facilitate recovery of damages and enforcement measures

A sample contingency plan and a checklist for elements required by Part 109 is available in the *SPCC Guidance for Regional Inspectors.*)













Requirements for OWS Used in Oil Production

- **Onshore oil production OWS: §112.9(c)(2)**
Must have secondary containment designed to contain the capacity of the largest single container and sufficient freeboard to contain precipitation.
- **Offshore oil production OWS: §§112.11(b) and 112.11(d)** to prevent a discharge of oil.

Oil/water separators used in oil production count towards the total storage capacity of the facility and should be included when determining if a facility is regulated by the SPCC rule.

Applicability of SPCC Rule to Oil/Water Separators Used in Oil Production

- Production of oil is not wastewater treatment for the purposes of §112.1(d)(6).
 - Focus of the separation process is on removing water from oil, as opposed to removing oil from water
- **Considered a bulk storage container** subject to specific secondary containment requirements (§112.9(c)(2)).
- Vessels and equipment (glycol dehydrators, inline heaters) which treat only gas are not subject to the SPCC rule.









Flow-through Process Vessels

- Proposed changes at 112.9(c)(2), and 112.9(c)(5)

Proposal would exempt flow-through process vessels at an oil production facility from the sized secondary containment requirements.

- Flow-through process vessels:
 - have 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.)
 - are differentiated from bulk storage containers and end-use storage containers, such as produced water containers, by their intended use

Flow-through Process Vessels – Proposed Requirements

- Proposed changes at 112.9(c)(2), and 112.9(c)(5)
- In lieu of sized containment, proposal would require:
 - periodic inspection and/or testing of flow-through process vessels and associated components;
 - prompt removal of any oil accumulations;
 - corrective action/repair as indicated by inspections, tests, or evidence of an oil discharge.

*** General secondary containment requirements still apply

Flow-through Process Vessels – Proposed Requirements

- Proposed changes at 112.9(c)(2), and 112.9(c)(5)

If the facility experiences a reportable discharge* from a flow-through process vessel, then the facility owner or operator would provide **sized secondary containment for all flow-through process vessels at the facility within six months from the discovery of the discharge.**

SPCC Requirements For Onshore Production

§ 112.9 (c) Bulk Storage Containers

(2) Drainage from undiked areas must be safely confined in a catchment basin or holding pond.









SPCC Requirements For Onshore Production

§ 112.9 (c) Bulk Storage Containers

- (3) Periodically and upon a regular schedule visually inspect each container for deterioration and maintenance needs, including the foundation and support of each container that is on or above the surface of the ground.**





SPCC Requirements For Onshore Production

§ 112.9 (c) Bulk Storage Containers

- (4) Engineer or update tank battery installations in accordance with good engineering practice to prevent discharges. Provide at least one of the following:
 - (i) Adequate container capacity to ensure a container will not overflow if a pumper/gauger is delayed;
 - (ii) Overflow equalizing lines between containers;
 - (iii) Vacuum protection to prevent container collapse during transfer of oil;
 - (iv) High level sensors to generate and transmit an alarm to the computer if a computer production control system exists.







SPCC Requirements For Onshore Production

§ 112.9 (d) Facility Transfer Operations

- (1) Inspect all aboveground valves and piping for the general condition of flange joints, valve glands/bodies, drip pans, pipe supports, pumping well rod stuffing boxes, bleeder and gauge valves, etc.**
- (2) Inspect salt water disposal facilities often, particularly following a sudden change in atmospheric temperature to detect upsets.**







Flowline Maintenance

§112.9(d)(3)

- **Aims to manage the oil production operations in a manner that reduces the potential for a discharge.**
- **No industry standard for flowline maintenance has been developed.**

A Flowline Maintenance Program Should Include...

- **General Spill Prevention**
 - Equipment is configured and operated to prevent discharges
 - Adequate supports and signage to help prevent mechanical damage to aboveground flowlines
 - Proper operation of safety devices such as low-pressure sensors and safety shut-down valves
- **Corrosion Protection**
 - Internal corrosion prevention through the use of compatible materials
 - External corrosion prevention through the use of compatible materials, coatings/wrappings, and or cathodic protection

continued



A Flowline Maintenance Program Should Include... (continued)

- **Periodic Examination**
 - Visual inspection of the flowlines by facility personnel
 - Should cover the piping, flange joints, valves, drip pans, and supports
 - Look for signs of corrosion, deterioration, leakage, malfunction, and other problems that could lead to a discharge
 - Frequency of inspections can vary according to their scope, the presence of secondary containment, and the detection capability needed to ensure prompt implementation of a contingency plan
 - May be supplemented by periodic integrity testing using non-destructive evaluation methods

continued



A Flowline Maintenance Program Should Include... (continued)

- **Flowline Replacement and Recordkeeping**
 - Plan should describe how the flowlines are configured, monitored, and maintained to prevent discharges
 - Facility personnel responsible for maintenance of the equipment should be aware of the flowline locations and be familiar with maintenance procedures
 - Records of inspections and tests should be kept under usual and customary business practice



Subpart B – Requirements for Petroleum Oils and Non-Petroleum Oils, Except Animal Fats and Oils and Greases; and Fish and Marine Mammal Oils; and Vegetable Oils (Including Oils from Seeds, Nuts, Fruits, and Kernels)

Section 112.10

§ 112.10

SPCC Requirements for Onshore Oil Drilling and Workover Facilities



§ 112.10

SPCC Requirements for Onshore Oil Drilling and Workover Facilities

If you are the owner or operator of an onshore oil drilling and workover facility, you must:

- (a) Meet the general requirements for the Plan listed under 112.7, and the specific discharge prevention and containment procedures listed in this section.**

§ 112.10

SPCC Requirements for Onshore Oil Drilling and Workover Facilities

- (a) Position or locate mobile drilling or workover equipment so as to prevent a discharge.**
- (b) Provide catchment basins or diversion structures to intercept and contain discharges.**

Onshore Drilling or Workover Equipment §112.10(c)

- Required to provide catchment basins or diversion structures to intercept and contain discharges of fuel, crude oil, oily drilling fluids.
- No specific sizing requirement, and no freeboard requirement.
 - Essentially very similar to the general containment requirement of §112.7(c)



§ 112.10

SPCC Requirements for Onshore Oil Drilling and Workover Facilities

- (d) Install a blowout prevention (BOP) assembly and well control system before drilling below any casing string or during workover operations. Must be capable of controlling any well-head pressure which may be encountered while BOP is on the well.**

SUBPART D

Response Requirements

112.20 Facility response plans

112.21 Facility response training and drills/exercises



Substantial Harm Certification

Determine whether discharge could cause substantial harm:

- **42,000 gallons over water transfer, or**
- **1 million gallons,**
 - **Drinking water intake; or**
 - **Environmentally sensitive area;or**
 - **Inadequate secondary containment; or**
 - **10,000 gallon or more spill in past 5 years.**

Complete and sign Certification Statement.

2007 SPCC Amendment Proposal

Published in Federal Register on
October 15, 2007.

- The proposed amendments are intended to increase clarity, tailor, and streamline certain requirements.
 - easier and increased compliance
 - greater protection of human health and the environment

2007 SPCC Amendment Proposal

- Comment on the proposed SPCC rule amendment and review docket documents at <http://www.regulations.gov>
- Docket ID No. EPA-HQ-OPA-2007-0584
- Comments on this proposed rule are due by **December 14, 2007.**

Definition of Facility

- Proposed changes at 112.2

The proposal would amend the definition of facility to offer clarification:

- 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” 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”

Proposed Modifications to Definition of Facility

- Proposed changes at 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.

Definition of Production Facility

- Proposed changes at 112.2

Proposal would amend the definition of “production facility,” consistent with the proposed revision to the definition of “facility”

- Clarifies that the definition of “production facility” is used to determine which sections of the rule apply at a particular facility (e.g., §112.9)
- Clarifies the flexibility allowed in determining the extent of the facility

Proposed Modifications to Definition of Production Facility

- Proposed changes at 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 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, or associated storage or measurement, and may be located in a single geographical oil or gas field operated by a single operator. This definition governs whether a facility is subject to a specific section of this part.

Timeframe for SPCC Plan Preparation and Implementation at Production Facilities

- Proposed changes at 112.3(b)

Proposal would allow a new oil production facility **six months** after the start of operations to prepare and implement an **SPCC Plan**.

- A new production facility is one that becomes operational after July 1, 2009.
- “Start of operations” is indicated by the start of well fluid pumping, transfer via flowlines, separation, treatment or storage of crude oil.

Applicable only to oil production facilities due to their unique characteristics of variable and uncertain initial flowrates

Clarification of the Definition of Permanently Closed Containers

SPCC rule exempts any oil storage container that is permanently closed.

- 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.

Loading/Unloading Rack

- Proposed changes at 112.2 and 112.7(h)

Excludes production facilities and farms from §112.7(h)

- Loading racks are generally not found at these facilities.
- Any loading/unloading activities at these facilities would remain subject to the general secondary containment requirements of §112.7(c).

Flowlines and Intra-facility Gathering Lines

- Proposed changes at 112.7(c), 112.9(d)(3), and 112.9(d)(4)

Proposal would exempt flowlines and intra-facility gathering lines from the secondary containment requirements under the SPCC rule.

- Flowlines transfer oil and well fluids from the wellhead to the tank battery.
- Gathering lines transfer the 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 are within EPA’s SPCC jurisdiction.)

Flowlines and Intra-facility Gathering Lines – Proposed Requirements

- Proposed changes at 112.7(c), 112.9(d)(3), and 112.9(d)(4)

In lieu of a secondary containment requirement, proposal would require:

- Contingency plan
 - Written commitment of manpower, equipment, and materials
 - Specific requirements for a flowline and intra-facility gathering line maintenance program
- Flowline/intra-facility gathering line maintenance program requirements would continue to be subject to the environmental equivalence provision.

Proposed Flowline/Intra-facility Gathering Line Maintenance Program

The proposal would require a maintenance program to address the facility owner/operator's procedures to:

- Ensure that **lines and associated valves and equipment are compatible** with the type of production fluids other conditions expected in the operational environment.
- **Visually inspect and/or test** lines and associated appurtenances on a periodic and regular schedule for leaks, oil discharges, corrosion, etc.
- **Take corrective action or make repairs** to any lines and associated appurtenances as indicated by regularly scheduled visual inspections, tests, or evidence of a discharge.
- Promptly **remove any accumulations of oil** discharges associated with lines and associated appurtenances.

Additional Approaches for Potential Rule Revisions related to Oil Production

EPA is also taking comment on approaches that could be used to:

- establish alternative criteria for an oil production facility to be eligible to self-certify an SPCC Plan as a qualified facility
- address produced water containers at oil production facilities





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QUESTIONS ????

Thank you