

OIL POLLUTION



PREVENTION REGULATIONS

The Newly Revised SPCC Rules

Spill Prevention Control and Countermeasure

NON-TRANSPORTATION RELATED ONSHORE AND
OFFSHORE FACILITIES

Code of Federal Regulations

Title 40 CFR Part 112

40 CFR Part 112

- Prevention requirements:
 - The original SPCC regulation promulgated in 1973;
 - Issued under the authority of the Clean Water Act sections 311(j) and 501;
 - Codified at 40 CFR part 112; and
 - First effective on January 10, 1974.

SPCC Rule Revision

- Revisions proposed to current rule in '91, '93, '97
- Final rule published in Federal Register 7/17/02, effective 8/16/02
- Revises applicability
- New subparts
- New definitions; other modifications

Industry Issues with New Rule

- P.E. re-certification of all existing SPCC plans
- Time Requirements (compliance deadlines) too short
- Lack of P.E.s available to examine and certify plans
- Policy questions and concerns (12 issues)
- Litigation over new rule
 - American Petroleum Institute (API)
 - Petroleum marketers of America (PMAA)
 - Marathon Oil

Litigation Issues

- **Definition of “Navigable Waters”**
- **Secondary containment and the role of cost in determining impracticability**
- **Loading “rack” versus loading “area”**
- **Produced water (oil/water separation excluded from wastewater treatment provision)**
- **“Should to Shall to Must” language**

New Rule Extension

- April 17, 2003 – extension to rule published
 - **Extended compliance dates by 18 months**
 - August 2004 - Plan (written) compliance
 - February 2005 - Implementation compliance
- No relief for facilities not in compliance with the old rule –must follow new rule immediately

Litigation Settlement

- **March 29, 2004 - Litigation settlement**
 - Integrity Testing
 - Produced Waters
 - Impracticability and Role of Cost
 - Loading “Rack” vs. Loading “area”
- **No settlement on Navigable Waters of the U.S.**

Purpose of 40 CFR Part 112

- To prevent oil discharges from reaching the navigable waters of the U.S. or adjoining shorelines,
- To ensure effective response to the discharge of oil, and
- To ensure that “proactive” measures are used in response to an oil discharge.

NON-TRANSPORTATION RELATED FACILITIES

Regulations apply to:

- Drilling
- Producing
- Gathering
- Storing
- Processing
- Refining
- Transferring
- Distributing
- Using
- Consuming



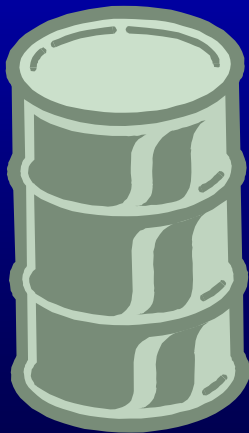
SPCC Applicability

- You must have an SPCC plan if your facility meets both of two criteria:
 1. It can reasonably be expected to discharge oil to “navigable waterways of the U.S. and adjoining shorelines”, and
 2. It has over aboveground capacity of 1320 gallons of oil, or has over 42,000 gallons underground storage capacity

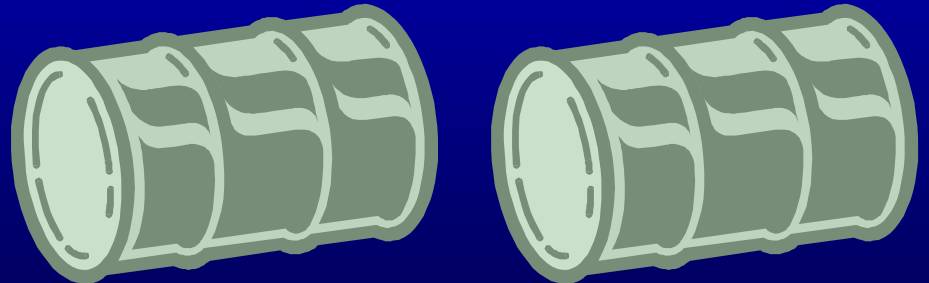
PART 112 – DOES APPLY

SPCC-regulated facilities are those that meet the following capacity threshold:

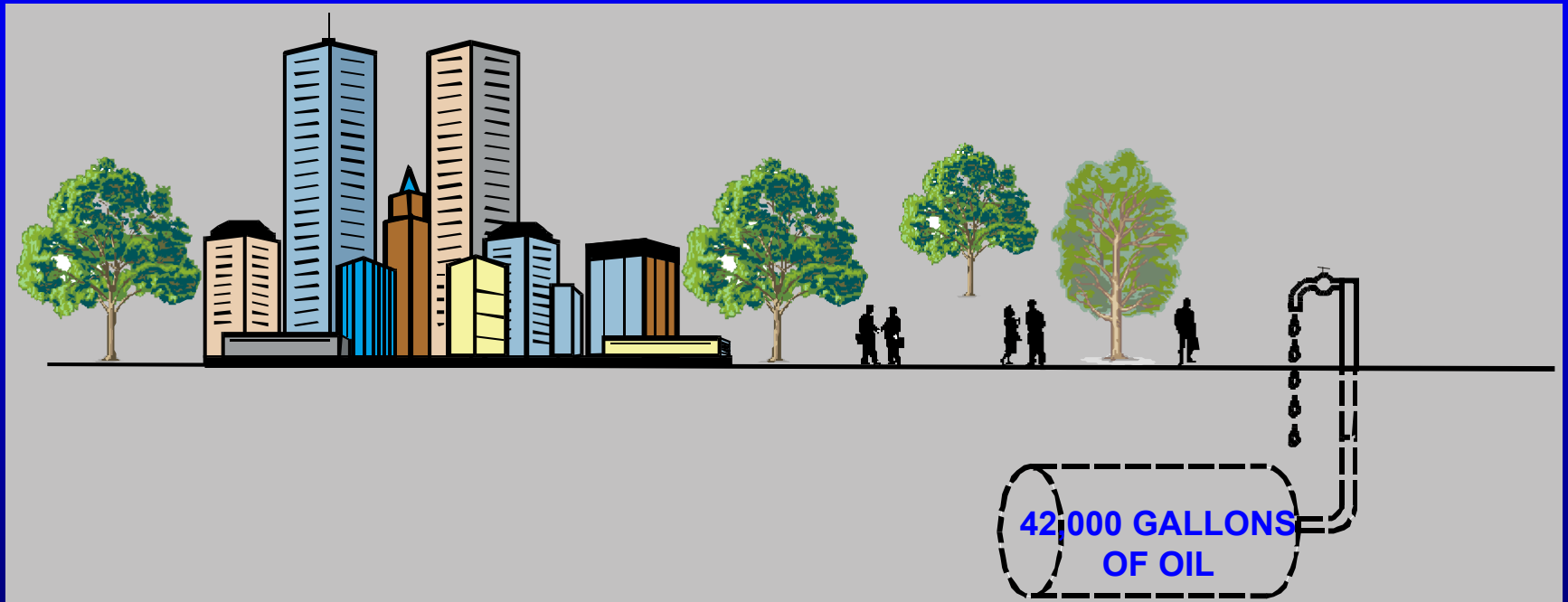
> 1320 gallons of oil in a single aboveground container



>1320 gallons aboveground in aggregate



PART 112 - DOES APPLY



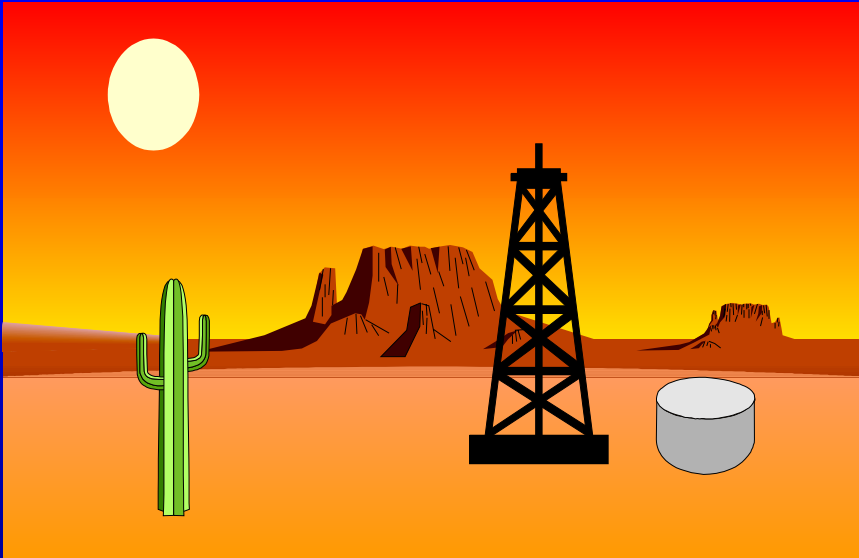
To facilities having > 42,000 gallons underground storage capacity

PART 112 - DOES APPLY



Non-transportation related facilities which, due to their location could reasonably be expected to discharge oil into or upon the navigable waters of the United States or adjoining shorelines.

PART 112 - DOES NOT APPLY



Non-transportation related facilities which, due to their location could not reasonably be expected to discharge oil into or upon the navigable waters of the United States or adjoining shorelines.

MAIN OBJECTIVE OF REGULATION

Preparation and **Implementation** of Spill Prevention,
Control and Countermeasure (SPCC) Plans

PREVENTION REQUIREMENTS

- SPCC regulations requires preparation and implementation of a written Plan to address:
 - Operating procedures for routine handling of products to prevent a discharge of oil
 - Discharge or drainage control measures to prevent a discharge of oil
 - Countermeasures to contain, clean up, and mitigate an oil spill
 - Methods of disposal of recovered materials
 - Contact list and phone numbers of company, contract response personnel, and National Response Center

**SPCC RULE REVISION
FINAL RULE**

Implementation Timeframes

Requirements to Prepare and Implement an SPCC Plan:

- If a facility is operating prior to the **08-16-02**, then the owner or operator must maintain the plan, but must ensure the plan's compliance with new rule on or before **08-17-04**. The owner or operator must implement the amended Plan no later than **02-18-05**.
 - Same time frame for amendments to bring an existing Plan into compliance.

Implementation Timeframes

- If a facility begins operations on 08-16-02 thru 02-18-05, then the owner or operator has until on or before 02-18-05 to prepare and implement a Plan.
- If a facility begins operations after 02-18-05, then the owner or operator must prepare and implement a Plan before beginning operations.

SPCC Rule Revision

Main Changes

- “Shoulds” to “Must” – We clarify rules requirements are mandatory
- Language clarifies “using” oil (operationally) may subject owner/operator to the rule
 - Transformers, oil-filled manufacturing equipment
- Regulatory capacity threshold increased to 1320 gallons – previous threshold of 660 gallons no longer applies

SPCC Rule Revision

Main Changes

- Deminimis container size now 55 gallon (previously none)
 - Any container < 55 gallons exempt
- Completely buried tanks subject to all of the UST technical requirements are now exempt (40 CFR 280 or 281)
- Permanently closed tanks. No sludge, no liquid, piping disconnected and blanked off, closed/locked valves, and signs indicating closure date

Counted



55-gallon drum

Not Counted



5-gallon buckets



5-gallon container 30-gallon drum



Labeled “Out of Service”

“Permanently closed” aboveground storage tank

SPCC Rule Revision

Main Changes

- Professional Engineer must consider appropriate industry standards
- Allowable for Agent of Professional Engineer to visit facility for purposes of certification

SPCC Rule Revision

Main Changes

- Oil production facilities, secondary containment volumes must also have sufficient freeboard for precipitation
- Allowance of deviations from most requirements of the rule if equivalent environmental protection is provided and reasons for non-compliance explained

(Does not include containment but the impracticability claim is extended to most containment requirements)

SPCC Rule Revision

Main Changes

- SPCC plan must be maintained at facility if manned 4 hours or more – previous requirement was 8 hours or more
- Allowance of usual and customary business records to serve as records of inspection or tests
- Employee training for oil handling personnel only
 - minimum of once a year – previous requirement had no specific time frame

SPCC Rule Revision

Main Changes

- Alternative formats for SPCC plan allowed. An owner or operator may use an Integrated Contingency Plan (ICP) or a State SPCC Plan **with a cross reference.**
- Three-year review expanded to Five-year review. The period in which an owner or operator is required to review the SPCC Plan changes from 3 to 5 years.

SPCC Rule Revision

Main Changes

- Facility Diagram required in SPCC plan
 - Physical layout of facility
 - Location and contents of each container
 - Wells, piping, and transfer stations

TECHNICAL REQUIREMENTS

Oil Production Facilities (onshore)



SPCC Rule Revision

Definition – Production Facility

- Definition essentially the same as old rule, but clarified
- 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 located in a single geographic oil or gas field operated by a single operator.

TECHNICAL REQUIREMENTS

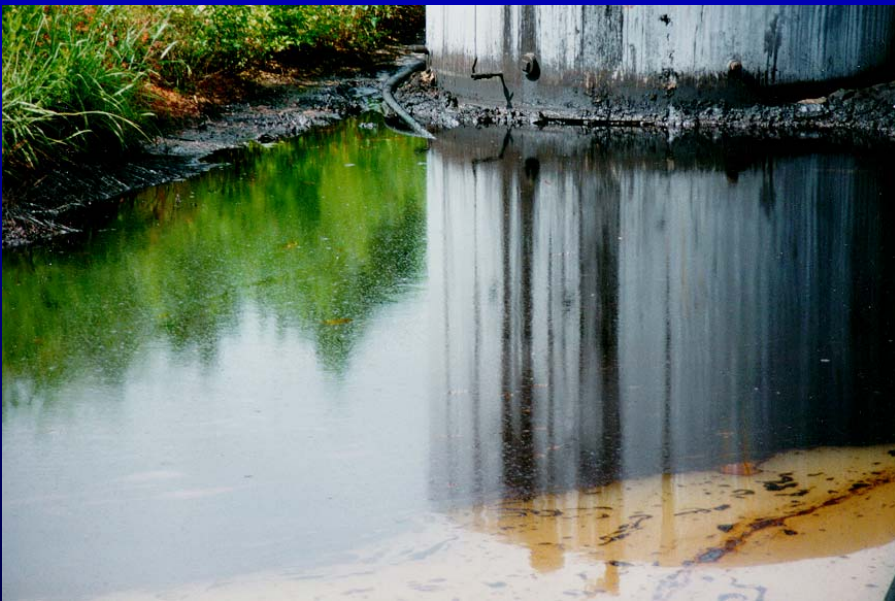
Oil Production Facility - Drainage

- Requirements the same as old rule, clarified
- If dikes at tank batteries and separation/treating areas have **drain valves, they must be closed** at all times except when rainwater is being drained.
- **Rainwater must be inspected** before being drained so that discharge of oil does not occur.
- **Accumulated oil on the rainwater must be picked up** and returned to storage or disposed of in accordance with legally approved methods.

TECHNICAL REQUIREMENTS

Oil Production Facility – Drainage (continued)

- Open and close valves under responsible supervision
- Keep adequate records of such drainage events
- Inspect field drainage ditches, road ditches, and oil traps, sumps, and skimmers at regular intervals and remove accumulated oil.



TECHNICAL REQUIREMENTS

Oil Production Facility - Bulk Storage Containers

- Requirements the same as old rule
- Bulk storage tanks shall be compatible with the material stored and the conditions of storage.
 - Storage tanks in good condition
 - No large scale corrosion: no holes, flaking or pitting
 - No leaking oil





TECHNICAL REQUIREMENTS

Bulk Storage Containers (continued)

- All tank battery, separation, and treating facilities must have secondary containment for the entire capacity of the single largest container **plus freeboard for precipitation (new requirement)**.
 - No specific freeboard value or % required (for example 110%). Use local climate conditions and engineering principles.
 - Means tanks, separators, heater treaters, gun barrels
 - Includes most salt water tanks (if any oil in them)

TECHNICAL REQUIREMENTS

Bulk Storage Containers (continued)

- Large volumes of water in containment not allowed
- Soil ok if not permeable (should have some clay content)
- No large rooted plant systems (cactus, shrubs, etc.)
- Vegetation kept down (must be able to inspect berm integrity and tanks)
- Keep berm from eroding, developing low spots







TECHNICAL REQUIREMENTS

Bulk Storage Containers (continued)

- All tanks containing oil should be visually examined for condition and need for maintenance on a scheduled periodic basis.
 - Check base, especially since tank bases are highly susceptible to corrosion
 - Keep soil from piling up around base
 - Keep vegetation away from base (can't inspect it if you can't see it)
 - Supports and foundations in good condition
 - Level
 - No large gaps underneath







TECHNICAL REQUIREMENTS

Bulk Storage Containers (continued)

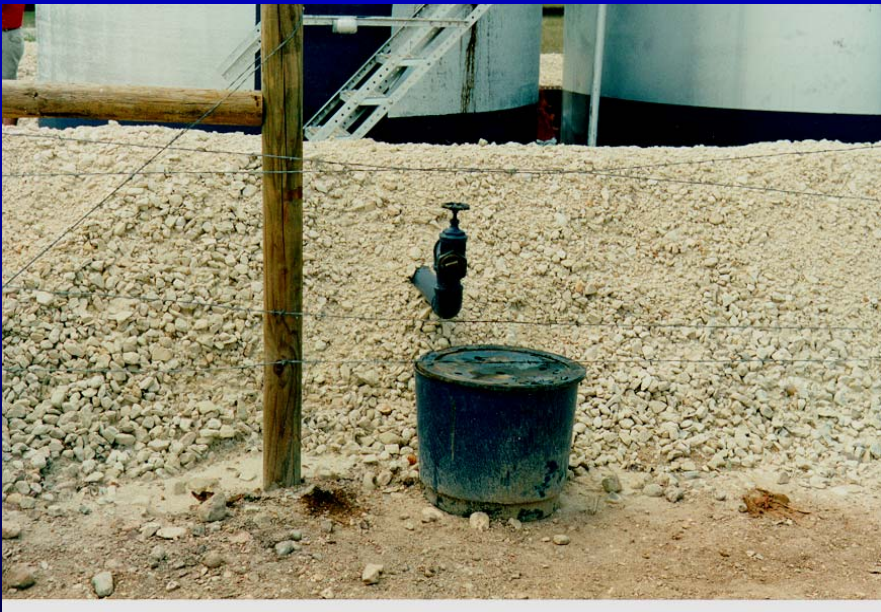
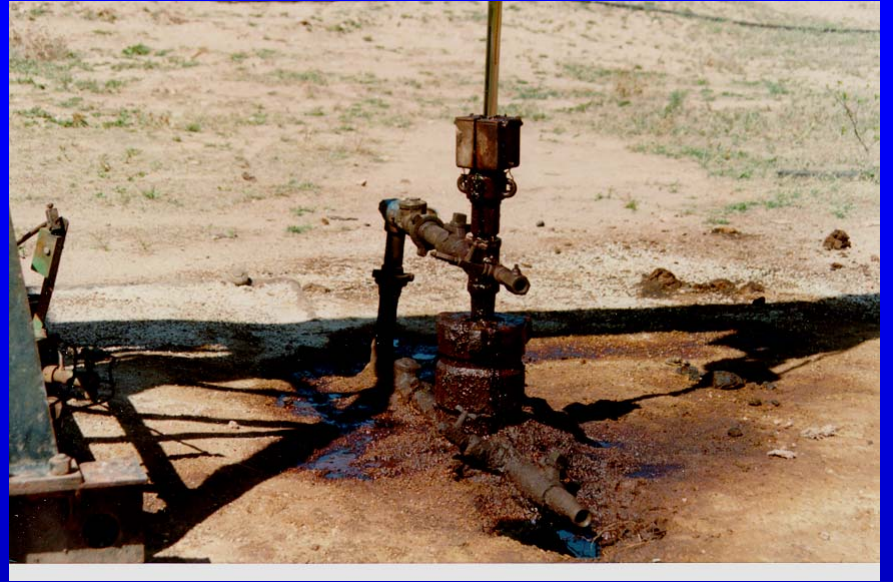
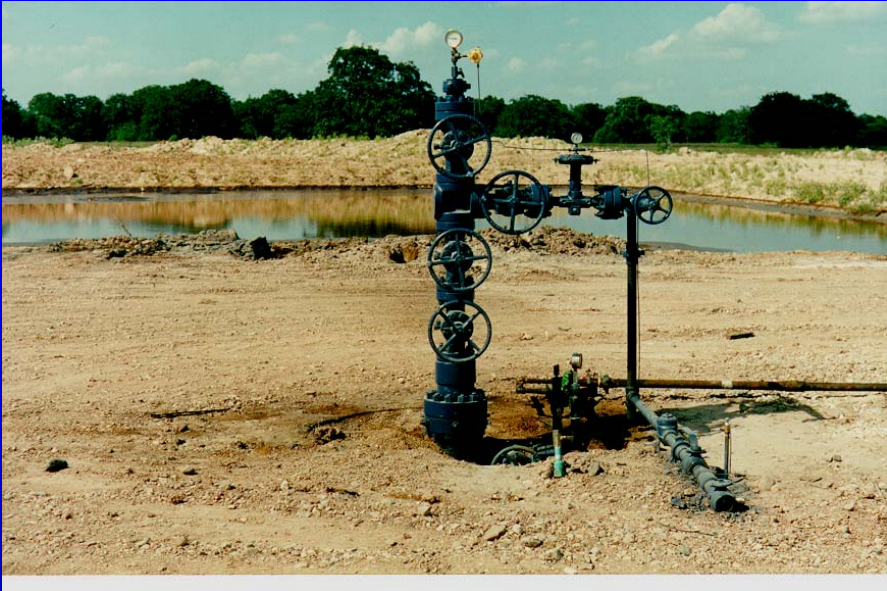
- New and old tank battery installations should be fail-safe engineered to prevent spills.
 - One or more of the following is required:
 - Adequate tank capacity
 - Overflow equalizing lines between tanks
 - Adequate vacuum protection
 - High level sensors where part of an automated system



TECHNICAL REQUIREMENTS

Facility Transfer Operations

- Aboveground valves, fittings, stuffing boxes, pipelines must be inspected and kept from leaking.
- Salt water disposal facilities should be examined periodically to detect problems that could cause an oil discharge.



TECHNICAL REQUIREMENTS

Facility Transfer Operations

- Production facilities must have a program of flowline maintenance to prevent spills.
 - No large scale corrosion (pitting, flaking)
 - Leaking/corroded flowlines repaired or replaced
- Under new rule, secondary containment is required for flowlines
 - Sorbent materials, drainage systems, other equipment are possible forms of containment (engineer approval)

TECHNICAL REQUIREMENTS

Facility Transfer Operations

- We recognize that containment is often impracticable
 - If not practicable,
 - Impracticability Claim must be made
 - Written contingency plan (commitment of manpower and materials)



Tank Truck Loading/Unloading Rack

- Secondary Containment **is required** for a loading rack – always has been.
- Loading Rack (112.7(h)) requirement has specific size volume containment (volume of the single largest compartment)



Tank Truck Loading/Unloading

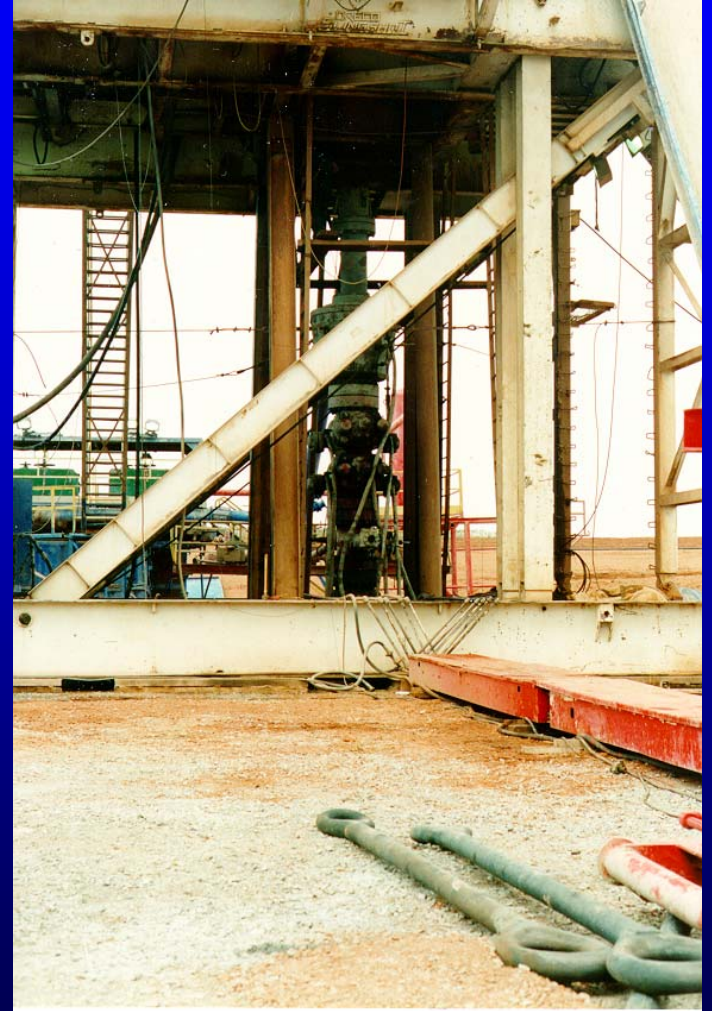
- If you do not have a loading rack, then 112.7(c) general containment is required (no specific size volume required)
- P.E. will have final determination as to what's appropriate containment



TECHNICAL REQUIREMENTS

Oil Drilling and Workover Facilities

- Nothing new under new rule
- Drilling and workover rigs required to have SPCC plan
- Secondary containment required, catchment basins or diversion structures necessary to intercept and contain spills of fuel, crude oil, or oily drilling fluids.
- A blowout prevention (BOP) assembly and well control system should be installed that is capable of controlling any well head pressure that may be encountered while that BOP assembly is on the well.





TECHNICAL REQUIREMENTS

Inspections and Records

- Inspections should be in accordance with written procedures developed for the facility by the owner/operator or engineer.
- Inspection written procedures should be signed by an appropriate supervisor or inspector.
- Both the inspection records and tests should be kept with the plan for a period of three years.

TECHNICAL REQUIREMENTS

Training and Spill Prevention Procedures

- Owners or operators are responsible for instructing their oil-handling personnel in:
 - Facility operations
 - the operation and maintenance of equipment to prevent the discharge of oil.
 - Discharge protocols
 - SPCC rules
- Each facility is required to have a designated person who is accountable for oil spill prevention.
- Schedule and conduct spill prevention briefings once a year

Litigation Settlement Items

- Produced Waters

- EPA was asked to extend the wastewater treatment exemption at 40 CFR 112.1(d)(6) to oil production facilities. Under the settlement, **produced water at oil production facilities is not subject to the wastewater exemption.**
- EPA was also asked if produced water tanks at dry gas production facilities are eligible for the wastewater treatment exemption.

Litigation Settlement Items

(Produced Water)

- Dry Gas Facilities

- Dry Gas: A dry gas production facility is a facility that produces dry gas from a well (or wells) from which it does also not produce condensate or crude oil that can be drawn off the tanks, containers or other production equipment at the facility.
- It is EPA's view that a dry gas production facility (as described above) **would not be excluded** from the wastewater treatment exemption.

Litigation Settlement Items

(Produced Water)

- Dry Gas Facilities

- In verifying whether a particular gas facility is not an “oil production, oil recovery, or oil recycling facility,” EPA may consider evidence at the facility pertaining to:
 - Presence or absence of condensate or oil which can be drawn off the tanks,
 - Containers or other production equipment at the facility
 - Pertinent facility test data and reports (e.g., flow tests, daily gage reports, royalty reports, or other production reports required by state or federal regulatory bodies)

Litigation Settlement Items

(Produced Water)

- “Facility” and “Production Facility”
 - In the new SPCC rule, the Agency promulgated definitions of “facility” and “production facility” (40 CFR 112.2)
 - The Agency has been asked which of these definitions govern the term “facility” as it used in 40 CFR 112.20(f)(1) in determining the applicability of Facility Response Plan (FRP) regulations to a production facility.
 - It is the Agency’s view that the definition of “facility” in 40 CFR 112.2 that governs the meaning of “facility” as it is used in 40 CFR 112.20(f)(1), regardless of the specific type of facility at issue.



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- Oil Information Hotline - 1-800-424-9346