Understanding the Flexibility Associated with the SPCC Rule

Patricia Fleming, US EPA

Freshwater Spills Symposium

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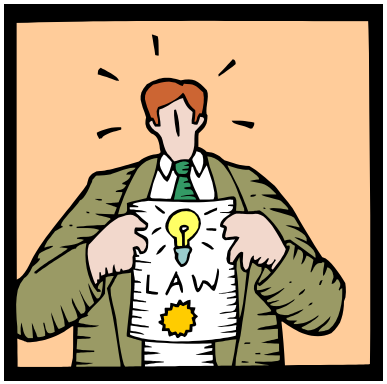
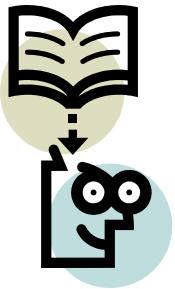


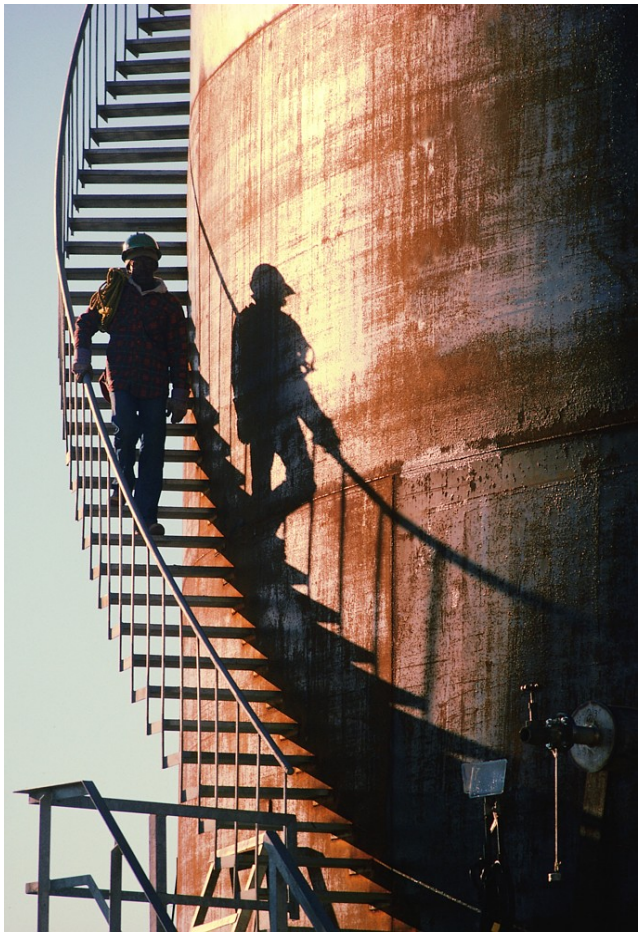
What is SPCC?

- Spill Prevention Control and Countermeasure (SPCC) rule - 40 CFR part 112
- Requires facilities to develop and implement SPCC Plan:

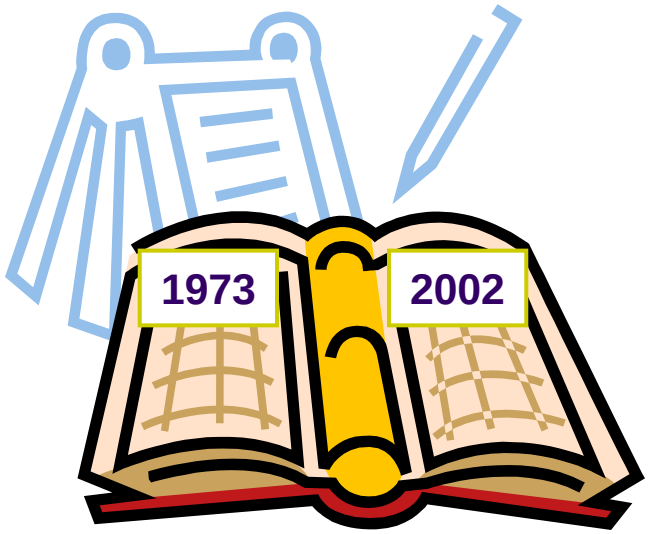


  - Operating procedures to **Prevent** an oil discharge;
  - **Control** measures to prevent an oil discharge from entering navigable waters; and
  - **Countermeasures** to contain, clean up, and mitigate the effects of any oil discharge that affects navigable waters

Is SPCC New?



- Originally promulgated December 11, 1973
  - Effective: January 10, 1974
- Revised rule published July 17, 2002
  - Effective: August 16, 2002



Today's Objectives

- Performance-based provisions of the rule
  - Environmental Equivalence
  - Secondary Containment & Impracticability

- Documentation in the SPCC Plan

- Discuss the role of the EPA Inspector during a Plan review

Performance-Based

- Flexibility to comply with rule requirements
  - Allows for consideration of special circumstances
  - Use of protective industry practices and technologies
- Determinations made on a site-specific basis
- Requires consideration of good engineering practices by a Professional Engineer (PE)

Environmental Equivalence (EE)

- Allows for deviations from specific rule requirements (§112.7(a)(2))
- Owner/operator responsible to select, document and implement alternate measure
- PE certifies the SPCC Plan in accordance with good engineering practices, including consideration of industry standards

What is involved in EE?

- Owner/Operator:
  - Identify reason to deviate from rule requirement
  - Determine an alternate, environmentally equivalent method of spill prevention, control or countermeasure
    - *Goal is to achieve the same desired outcome* -need not be mathematical equivalence
- SPCC Plan includes:
  - Reason for nonconformance in Plan
  - Describe in detail the alternate methods and how it achieves equivalent environmental protection
- The EPA Regional Administrator has authority to require an amendment of the Plan

Eligibility for EE

Eligible:

- Most technical elements of rule §§112.7-112.12
  - Security
  - Loading/Unloading Rack
  - Facility Drainage
  - Bulk Storage Container
  - Piping

NOT Eligible:

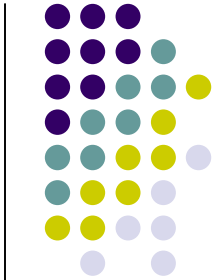
- Secondary Containment
- General recordkeeping
- Training provisions
- Administrative provisions §§112.1-112.5
  - Includes definitions

Requirements eligible for environmental equivalence, by facility type

From: Table 3-1 (page 3-4).

Facility Type/Provision	Sections	
	Petroleum Oils and Non-Petroleum Oils	Animal Fats and Vegetable Oils
All regulated facilities		
Security	112.7(g)	
Loading and unloading racks	112.7(h)(2) and 112.7(h)(3)	
Brittle fracture evaluation	112.7(i)	
Onshore Facilities		
Facility drainage/undiked areas	112.8(b), 112.9(b), 112.10(b) and 112.11(b)	112.12(b)
Type of bulk storage container	112.8(c)(1) and 112.9(c)(1)	112.12(c)(1)
Drainage of diked areas	112.8(c)(3)	112.12(c)(3)
Corrosion protection of buried storage tanks	112.8(c)(4) and 112.8(c)(5)	112.12(c)(4) and 112.12(c)(5)
Integrity testing and/or container inspection	112.8(c)(6) and 112.9(c)(3)	112.12(c)(6)
Monitoring internal heating coils	112.8(c)(7)	112.12(c)(7)
Engineering of bulk container installation (overfill prevention)	112.8(c)(8) and 112.9(c)(4)	112.12(c)(8)
Monitoring treatment/disposal facilities	112.8(c)(9) and 112.9(d)(2)	112.12(c)(9)
Removal of oil in diked areas and production facility drainage	112.8 (c)(10)	112.12(c)(10)
Piping	112.8(d), 112.9(d)(1), and 112.9(d)(3)	112.12(d)
Oil drilling and workover facilities		
Facility drainage/undiked areas (rig position)	112.10(b)	N/A
Blowout prevention and well control system	112.10(d)	N/A
Offshore Facilities		
Offshore oil drilling and workover facilities	112.11(b) through 112.11(p)	N/A

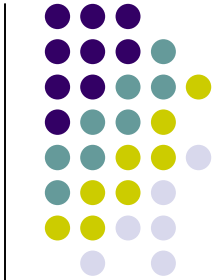
Overview of Secondary Containment



- **General Provision**, §112.7(c)
  - Addresses the potential for oil discharges from all regulated parts of a facility
  - Containment method, design, and capacity are determined by good engineering practice to contain an oil discharge until clean-up occurs
  - Intended to address most likely discharge

- **Specific Provisions**
  - Address the potential of oil discharges from specific parts of a facility where oil is stored or handled
  - Containment design, sizing, and freeboard requirements are specified by the SPCC rule to address a major container failure

SPCC Secondary Containment Provisions



Type of Facility	*Secondary Containment*	*Rule Section(s)*
All Facilities	General containment (areas with potential for discharge, e.g. piping, oil-filled operating and manufacturing equipment, and non-rack related transfer areas) Loading/unloading racks	112.7(c) 112.7(h)(1)
Onshore Storage	Bulk storage containers Mobile or portable oil containers	112.8(c)(2)/ 112.12(c)(2) 112.8(c)(11)/ 112.12(c)(11)
Onshore Production	Bulk storage containers, including tank batteries, separation, and treating facility installations	112.9(c)(2)
Onshore Oil Drilling and Workover	Mobile drilling or workover equipment	112.10(c)
Offshore Oil Drilling Production and Workover	Oil drilling, production, or workover equipment	112.7(c)

Secondary Containment Methods

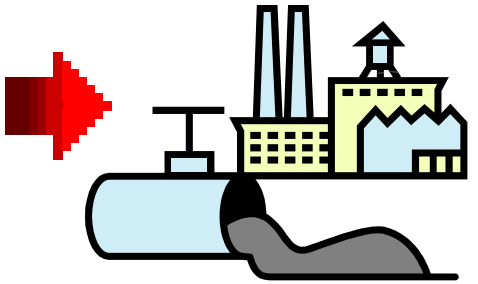
- Examples of methods to provide secondary containment in §112.7(c)
  - Dikes, berms, or retaining walls
  - Curbing
  - Culverting, gutters, or other drainage systems
  - Weirs
  - Booms
  - Barriers
  - Spill diversion ponds and retention ponds
  - Sorbent materials
  - Drip pans
  - Sumps and collection systems

Secondary Containment Flexibility

- Passive and Active Measures
  - **Passive measures**
    - Permanent installations
    - Do not require deployment or action by the owner operator
  - **Active containment measures**
    - Require deployment or other specific action
    - Used when permanent containment is not feasible

Active Measures

- Active measures can include:
  - Placing storm drain cover over a drain to contain a potential discharge, **prior** to transfer activity
  - Placing storm drain cover over a drain **after** discharge, but before the oil reaches the drain
  - Using spill kits in the event of an oil discharge
  - Use of spill response capability in the event of an oil discharge-spill response teams
  - Closing gate valve that controls area drainage prior to a discharge



Impracticability Provision (§112.7(d))

- **Document** in Plan why secondary containment is impracticable

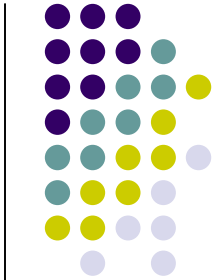
- For bulk storage containers:
  - Conduct periodic integrity testing of containers; and
  - Periodic integrity testing and leak testing of valves and piping associated with containers
- Unless facility has submitted a Facility Response Plan (FRP) under §112.20:
  - An oil spill contingency plan in accordance with 40 CFR 109; and
  - A written commitment of manpower, equipment, and materials required to control and remove any quantity of oil discharged that may be harmful

Impracticability of Secondary Containment

- When a facility owner/operator is incapable of providing secondary containment:
  - Space and geographical limitations
  - Local zoning ordinances
  - Fire codes
  - Safety
  - Other good engineering practice reasons

- Economic cost may be considered
  - Not the only determining factor in claiming impracticability

Active Measures vs. Contingency Plan



- **Active secondary containment measures**
  - Requires a deployment action;
  - Put in place prior to or immediately upon discovery of oil discharge

Purpose of active measures:

- **To contain an oil discharge before it reaches navigable waters or adjoining shorelines**

- **Contingency plan**
  - Detailed oil spill response plan developed when secondary containment is impracticable

Purpose of contingency planning:

- Outline response capability or countermeasures to limit the quantity of a discharge reaching navigable waters or adjoining shorelines, and
- **Address response to a discharge of oil after it has reached navigable waters or adjoining shorelines**

Documentation

- Critical that the SPCC Plan includes detailed description for environmental equivalent alternatives
- Use of active secondary containment must also be fully described
  - Active measures cannot often be visually identified- inspector will rely on description in Plan
- Plan must clearly explain determination of impracticability
  - If no FRP, address additional requirements for oil spill contingency plan and written commitment of resources

Role of the EPA Inspector

- Gather information and data to determine whether a facility is compliant with SPCC requirements

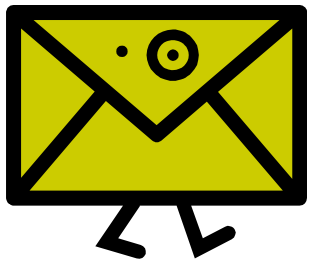
- Check that measures described in the SPCC Plan are implemented at the facility and Plan is certified by PE

- Fully document all observations and other pertinent information

Role of the EPA Inspector

- If measures documented in the SPCC Plan:
  - Do not meet the standards of common sense
  - Appear to be at odds with recognized industry standards
  - Does not meet overall objective of oil spill response/prevention, or
  - Appears inadequate for the facility then…

…appropriate follow-up action may be warranted.

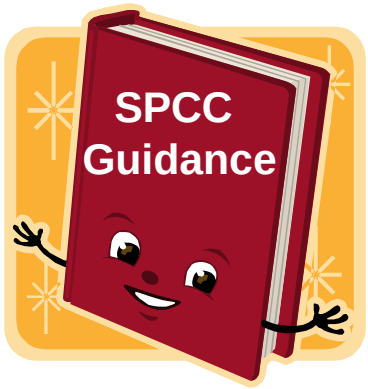


Summary

- There is flexibility in the SPCC rule
  - Environmental Equivalence for technical provisions
  - Impracticability for secondary containment provisions
- Requires good engineering practices
- Documentation is critical
- Inspectors will review Plans for proper documentation and compare to implementation at the facility

SPCC Guidance for Regional Inspectors

- **Released in December 2005**
  - **Available on EPA website at www.epa.gov/oilspill**



- **Clarifies role of the inspector in reviewing implementation of performance-based provisions**
- **Is a "living document" and may be updated or revised**
- **Does not address all aspects of the SPCC rule**

For More Information

Patricia Fleming
US EPA, Office of Emergency Management
fleming.patricia@epa.gov

EPA Oil Program Website:
http://www.epa.gov/oilspill

Superfund, TRI, EPCRA, RMP and Oil Information Center:
1-800-424-9346