ECA Workshop for Kentucky Hospitals

Louisville, KY

June 1, 2007

PREVENT • PREPARE • RESPOND

SPCC Review

Outline

1. Background of the SPCC Regulation
2. Applicability
3. Requirements for Preparation of written SPCC Plans
4. Implementation of SPCC Requirements
5. Overview of December 2006 Amendments to the SPCC Rule
6. Overview of *SPCC Guidance Document for Regional Inspectors*

U.S. EPA Oil Program

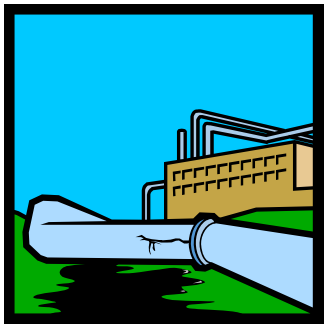
- **Prevention**
  - **SPCC**
- **Preparedness**
  - **Facility Response Plans**
  - **Area Contingency Plans**
- **Response**
  - **National Contingency Plan**
  - **Local, State, Federal (EPA & USCG), Responsible Party**

Prevention Requirements

- **Spill, Prevention, Control, and Countermeasure** (SPCC) regulations (**40 CFR 112**) require the preparation and implementation of site-specific plans to prevent oil discharges that could affect navigable waters
- **Authority:** CWA § 311(j)(1)(C) and 501, and codified under 40 CFR Part 112

Purpose SPCC - (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.



History of SPCC

1972	Federal Water Pollution Control Act Amendments
1974	**Original SPCC Rule (40 CFR part 112) Published**
1988	Ashland Oil Spill – SPCC Task Force formed
1989	Exxon Valdez in Alaska
1990	Oil Pollution Act
1991	Proposed SPCC Rule - complete revision of existing rule
1993	Proposed SPCC Rule - amendments
1994	Final Facility Response Plan (FRP) Rule published
1997	Additional proposed SPCC amendments
2001	Draft Final SPCC Rule – remanded to OMB
2002	**Final "revised" SPCC rule published 7/17/02**
2003	SPCC compliance date extension
2004	SPCC litigation settlement and compliance date extension
2005	Proposed SPCC Rule amendments and SPCC Inspector Guidance Document published 12/05
2006	Compliance Date Extension issued 2/17/06
2006	**Final SPCC Rule Amendments published 12/26/2006**
2007	**Compliance Date Extension issued 5/16/2007**

2002 SPCC Revisions

- Issued July 17, 2002; became effective August 16, 2002
- Fine-tuned a 30 year old regulation
- Performance based: provides flexibility in meeting many of the oil discharge prevention requirements
  - Environmental Equivalence
- Strengthened Integrity Testing and PE Certifications
- Amends the requirements for completing SPCC Plans

- **But raised many concerns about long-standing requirements**

December 2006 Amendments

- Final Rule published December 26, 2006
- Final Rule effective February 26, 2007
- Rule proposal was published December 12, 2005
- Provides streamlined, alternative methods for compliance with oil spill prevention requirements

December 2006 Amendments provides New Streamlined Requirements for…

- Facilities with an oil storage capacity of 10,000 gallons or less (“qualified facilities”)
- Oil-filled operational equipment
- Mobile refuelers

The Dec 2006 rule amendments also…

- Exempts motive power containers
- Eliminates certain requirements for animal fats and vegetable oils
- Provides compliance date extension for farms

Compliance Date Extensions

- **Compliance dates for the 2002 SPCC amendments were extended in 2003, 2004, 2006, and May 2007 (§112.3(a) and (b)).**
  - Provides additional time for regulated community to update or prepare Plans, especially following the litigation settlement (2004 extension), and the December 2006 amendments.
  - Alleviates the need for individual extension requests.

Current Compliance Dates

A facility starting operation...	Must...
On or before 8/16/02	• Maintain existing Plan • Amend and Implement Plan no later than 7/1/09
After 8/16/02 through 7/1/09	• Prepare and implement a Plan no later than 7/1/09
After 7/1/09	• Prepare and implement a Plan before beginning operations

Applicability of SPCC

SPCC Regulated Entities (§112.1(b))

Facility is subject to the regulation:

- If it is a non-transportation-related facility that distributes, drills, gathers, produces**,** processes, refines, **stores,** transfers, **uses**, *or* **consumes oil** and oil products; **and**

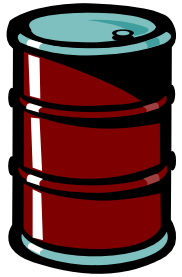
- **due to its location could reasonably be expected to discharge oil into navigable waters of the U.S.** or adjoining shorelines **AND**

SPCC Regulated Entities

- Meets at least one of the following capacity thresholds:
  - **Aggregate total of more than 1,320 gallons of oil in aboveground containers** (*only counting containers of 55-gallons or greater*); **or**
  - More than 42,000 gallons of oil in underground tanks
    - (Note: most USTs now exempt from SPCC)

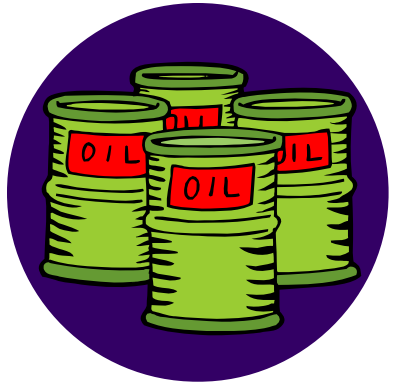
SPCC Regulated Entities (cont.)

- "Facility capacity" includes the shell capacity of all containers, such as:
  - **Tanks and portable tanks;**
  - **Oil filled equipment**
  - **55-gallon drums and;**
  - **Empty containers (>=55-gal capacity) that may be used to store oil and are not permanently taken out of service**



Key Definitions – Oil (§112.2)

- Includes ***oil of any kind or in any form*** such as:
  - **Petroleum and fuel oils**
  - **Mineral oils**
  - **Sludge**
  - **Oil mixed with wastes other than dredged spoil**
  - **Animal fats, oils, and greases**
  - **Vegetable oils**
  - **Other oils**



SPCC Considerations

Navigable Waterways could include:

- **Traditional navigable waters & their tributaries**
- **Creeks and Streams**
- **Ditches**
- **Lakes and Ponds**
- **Wetlands, mudflats and sandflats**
- **Sanitary Sewers/Storm Sewers/Drains**
- **Groundwater IF it is directly connected hydrologically with surface waters**

Exemptions from SPCC (§112.1(d))

- Containers less than 55-galllons
- Completely buried USTs regulated by 40 CFR Part 280 or 281
- Permanently Closed Containers
- Waste water treatment tanks and process vessels exempt
- Motive power containers (a Dec 2006 Amendment)

Underground Storage Tanks
(§112.1(d)(4))

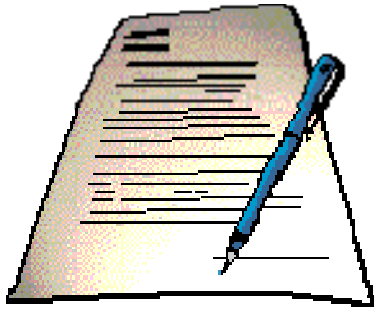
- SPCC rule exempts:
  - Completely buried storage tanks
  - Connected underground piping
  - Underground ancillary equipment and containment systems

  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

Requirements for Preparation of SPCC Plans

Management Approval – (§112.7)

- Plan must have full approval of management at a level of authority to commit the necessary resources to fully implement the Plan.



PE Certification (§112.3) and Management Review (§112.5)

- A Professional Engineer (PE) must Certify the Plan*
- Plan must be maintained at the facility or nearest field office and be available for review by EPA upon request.
- The owner or operator must complete a review and evaluation of their facility's SPCC Plan at least ***once every five years.***

*December 2006 Amendment allows 'Self-Certification' Option for Qualified Facilities

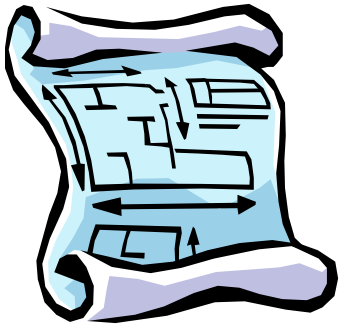
Amendments to SPCC Plan (§112.5)

- SPCC Plan must be amended within 6-months of any change in facility design or construction which affects the facility's potential to discharge oil.
- Technical Amendments MUST be certified by a PE
- Amendments must be implemented within 6-months of plan change.

Written Plan Requirements (§112.7(a)(3))

- Type of oil in each container and its storage capacity
- Discharge/drainage controls (e.g., secondary containment for bulk containers)
- Countermeasures for discharge discovery, response, and cleanup
- Emergency Contact list and phone numbers

Facility Diagram



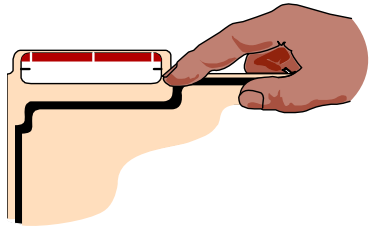
- Requires owner or operator to describe physical layout of the facility and include a facility diagram in the Plan

- **Diagram must:**
  - **Mark location and contents of each container**
  - **Include completely buried tanks otherwise exempt under §112.1(d)(4)**
  - **Include all transfer stations and connecting pipes**
- **Flexibility is accepted when dealing with concentrated areas of piping**

Written Plan Requirements – Spill Analysis (§112.7(b))

- Prediction of potential oil discharges from equipment and storage tanks
  - direction
  - rate of flow, and
  - total quantity discharged

Inspections, Tests, and Records
(§112.7(e))



- Requires inspections and tests in accordance with written procedures
- Maintain inspection records for 3-years
- Allows use of records kept per usual and customary business practices
  (NPDES records would be acceptable)

Personnel, Training, and Spill Prevention Procedures – (§112.7(f))

- Training required for **oil handling personnel** in the operation and maintenance of equipment to prevent the discharge of oil
- Requires **spill prevention briefings** for personnel at least **once a year** to assure adequate understanding of the SPCC Plan for that facility
- Required to have a designated person who is accountable for oil spill prevention and who reports to line management.

Requirements for Implementation of SPCC Plans

Plan Requirements (§112.7(c)) – Secondary Containment

- Requires containment and/or diversionary structures for **oil filled equipment** and **bulk storage containers** to prevent a discharge.
- Containment methods:
  - **Dikes, berms or retaining walls;**
  - **Curbing; Culverting, gutters, or other drainage systems;**
  - **Weirs, booms, or other barriers;**
  - **Spill diversion ponds; Retention ponds; or**
  - **Sorbent materials**

Oil Filled Equipment Requirements

1. **Oil filled operational equipment requires secondary containment or a monitoring program per the Dec 2006 amendments.***
2. **Oil filled manufacturing equipment requires secondary containment**

- **Containment systems for oil filled equipment must meet the general containment requirements of §112.7(c).**
  - **Containment size must be based on good engineering practice**
    - up to PE to determine the appropriate sizing and structure
      - address the most likely discharge from the equipment

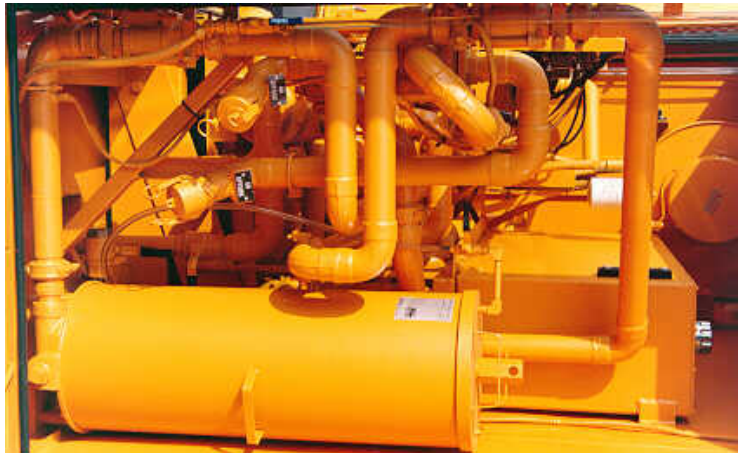
- **Oil filled equipment is not a bulk storage container**
  - Therefore, containment for oil filled equipment is NOT required to meet the containment requirements for bulk storage tanks per 40 CFR 112.8(c).

Oil-Filled Operational Equipment: Definition

- **Equipment that includes an oil storage container (or multiple containers) in which the oil is present solely to support the function of the apparatus or the device**
- Not considered a bulk storage container
- Does not include oil-filled manufacturing equipment (flow-through process)
- Piping might be considered a component of oil-filled operational equipment:
  - Yes, if it is inherent to the equipment and used solely to facilitate operation of the device
  - No, if it is not intrinsic to the equipment (i.e., flowlines, transfer piping or piping associated with a process)

Oil-Filled Operational Equipment

- Examples: hydraulic systems, lubricating systems, gear boxes, machining coolant systems, heat transfer systems, transformers, circuit breakers, electrical switches, other systems containing oil solely to enable the operation of the device



Bulk Storage Containers (§112.8(c))

Secondary Containment for Bulk Storage Containers: (§112.8(c)(2))

1. Provide secondary containment for entire capacity of largest single container and sufficient freeboard for precipitation
2. Ensure diked areas are sufficiently impervious to contain discharged oil

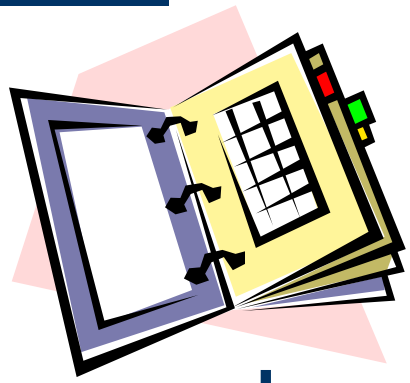
Double-walled ASTs

Stormwater Drainage (§112.8(c)(3))

- Drainage of rainwater from diked areas can bypass in-plant treatment if:
  - Bypass valve is normally **sealed closed!!**
  - Inspection of runoff rainwater ensures no sheen
  - Bypass valve is opened and resealed following drainage under responsible supervision
  - Adequate records are kept of such events
- Records for NPDES permits are sufficient for recording stormwater bypass events

Integrity Testing For Bulk Storage Tanks (§112.8(c)(6))

COMBINE



1. **Visual inspection with**

2. **Non-destructive testing technique, such as: hydrostatic, radiographic, ultrasonic, or acoustic testing. Recommend using industry standards (API, STI, UL).**

Fail-Safe Engineering for Bulk Storage Tanks – 112.8(c)(8)(i to v)

- One of the following devices must be provided:
  - High level alarms
  - High liquid level pump cutoff devices
  - Direct audible or code signal communications
  - Fast response system for determining liquid levels of tanks: digital, computers, telepulse, direct vision gauges
- Must regularly test liquid level sensing devices

Correction of Discharges and Clean-up of Oil Accumulations

- Section 112.8(c)(10) requires:
  - Prompt correction of visual discharges
  - Prompt removal of any accumulations of oil in diked areas

Security Requirements (§112.7(g))

- All plants handling, processing, and storing oil should be **fully fenced**
- Entrance **gates should be locked and/or guarded** when the plant is not in production or is unattended
- Master flow and drain **valves, pump controls, secured in the closed position** when in non-operating status
- **Appropriate lighting**

Tanker Truck/Rail Car Loading and Unloading Area Requirements
(§112.7(c) and §112.7(h))

- Facility **tank car and tank truck loading/unloading rack areas** should have secondary containment to handle a spill from the **single largest compartment of a tank car or tank truck** loaded or unloaded at that place if it does not go to in-plant treatment.

Loading Rack

LOADING RACK

Loading Rack vs Loading/Unloading Area Clarifications

- **The provisions of §112.7(h) only apply in instances where a rack structure is present.**
  - **Transfers at other areas in the facility are only subject to general containment requirements of §112.7(c).**
    - **Containment size based on good engineering practice (PE's determination)**
- **Loading/unloading areas utilizing a single hose and connection or standpipe are not considered "racks."**

December 2006 Amendments to the SPCC Rule

December 2006 SPCC Rule Amendments Overview

- Offer streamlined optional requirements for:
  - Qualified Facilities
  - Qualified Oil-Filled Operational Equipment
  - Mobile Refuelers
- Exempt motive power containers
- Remove certain provisions for animal fats and vegetable oils
- Provide a separate, indefinite compliance date extension for farms

Qualified Facilities - Summary

If a facility…	And the facility…	Then the owner/operator of the facility…
...has 10,000 gallons or less in aggregate aboveground oil storage capacity	...meets the oil discharge history criteria described below	...may prepare a self-certified SPCC Plan instead of one reviewed and certified by a Professional Engineer (PE) ...may meet tailored facility security and tank integrity inspection requirements without PE certification ...may prepare a plan which includes PE-certified environmentally equivalent measures or impracticability determinations that would require PE certification for only the portions dealing with environmental equivalence and impracticability determinations. The remaining portions of the plan could be self-certified by the facility owner/operator.

To use these alternatives a facility must meet requirements for its reportable discharge history. The facility must not have had (1) a single discharge of oil to navigable waters exceeding 1,000 U.S. gallons or (2) two discharges of oil to navigable waters each exceeding 42 U.S. gallons within any twelve-month period, in the three years prior to the SPCC Plan certification date, or since becoming subject to 40 CFR part 112 if operating for **less than three years.**

Oil-Filled Operational Equipment - Summary

If the facility…	And the equipment…	Then the owner/operator of the facility…
...has oil-filled operational equipment	...meets the oil discharge history criteria described below	...**may implement an inspection and monitoring program**, **develop an oil spill contingency plan**, **and provide a written commitment of resources to control and remove oil discharged**, for qualified equipment in lieu of secondary containment for the oil-filled operational equipment ...does not need to make an impracticability determination for each piece of equipment

To use this alternative, a facility's oil-filled operational equipment must meet requirements for its reportable discharge history. The facility's oil-filled operational equipment must not have had (1) a single discharge of oil to navigable waters exceeding 1,000 U.S. gallons or (2) two discharges of oil to navigable waters each exceeding 42 U.S. gallons within any twelve-month period, in the three years prior to the SPCC Plan certification date, or since becoming subject to 40 CFR part 112 if operating for **less than three years.**

Motive Power Containers

- **Definition: 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
- Definition does not include oil drilling or workover equipment, including rigs
  - But fuel tanks on trucks, automobiles, bulldozers, seismic exploration vehicles, or other earth-moving equipment at drilling or workover facilities are considered to be “motive power” containers
- **Motive power containers exempted from the SPCC rule**

Animal Fats and Vegetable Oils

- Removed sections for facilities with animal fats and vegetable oils that are not appropriate:
  - Onshore oil production (§112.13)
  - Onshore oil drilling and workover facilities (§112.14)
  - Offshore oil drilling, production, or workover facilities (§112.15)
- EPA examining if differentiated SPCC requirements for animal fats and vegetable oils are appropriate

The Spill Prevention, Control, and Countermeasure (SPCC) Guidance for Regional Inspectors

SPCC Guidance Document

- The full document is available at **www.epa.gov/oilspill**
- The document is evergreen and comments will always be accepted via the website

Guidance Document Contents

- Chapter 1: Introduction
- Chapter 2: Applicability of the SPCC Rule
- Chapter 3: Environment Equivalence
- Chapter 4: Secondary Containment and Impracticability Determinations
- Chapter 5: Oil/Water Separators
- Chapter 6: Facility Diagrams
- Chapter 7: Inspection, Evaluation, and Testing
- Appendices

Appendices

A. Text of CWA 311(j)(1)(c)

B. Text of 40 CFR Part 112

C. Summary of Revised Rule Provisions

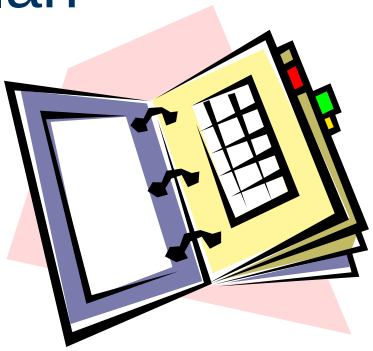
D. Sample Bulk Storage Facility SPCC Plan

E. Sample Production Facility SPCC Plan

F. Sample Contingency Plan

G. SPCC Inspection Checklists

H. Other Policy Documents



For Additional Information

- **Ted Walden EPA R4 404-562-8752**
  walden.ted@epa.gov
- **www.epa.gov/oilspill**
- **National SPCC/RCRA Hotline**
  1-800-424-9346