Spill Prevention, Control and Countermeasures (SPCC)
40 CFR 112

For Bulk Facilities
Do you have an oil?

- The list of Petroleum and Non-petroleum oils subject to the Clean Water Act requirements can be found at "http://www.uscg.mil/vrp/faq/oil.shtml"

- Oils include: gasoline, non-petroleum oils, asphalt, hexane, jet fuel, mineral spirits, edible and non-edible animal and vegetable oils, coal tar, creosote, lube oil additives, tallow, polyolefins, ethyl cyclohexane, turpentine,.........
SPCC Applicability (112.1)

- Non-Transportation-Related Facility engaged in:
- **Drilling, producing, gathering, storing**, processing, refining, transferring, distributing, using, or consuming
- **Oil** of any kind (petroleum, vegetable, animal, synthetic)
- in:
  - **Total** aboveground storage capacity > **1,320 gallons** counting only containers 55 gallons and greater; and/or
  - Total underground capacity > **42,000 gallons** not including capacity of buried tanks covered in 40 CFR part 280 or 281
  - Exempts wastewater treatment facilities
• A discharge of oil from the facility could reasonably be expected to reach **waters of the U.S.**, 

• Dikes, equipment, and other manmade structures **are not considered** as reasons that oil would not be expected to reach waters of the U.S., 

• Examples of waters of the U.S. may include: lakes, rivers, streams, dry creek beds, ditches, wetlands, and tributaries to these.
OPA Jurisdiction of Federal Agencies

EPA

PRODUCT TANK (TERMINAL)
PRODUCT TANK (TERMINAL)

TRUCK/RAIL CAR LOADING/UNLOADING RACK

DOT/USCG

LOADING/UNLOADING PIER

DOT/OPS

PRODUCT TANK (BREAKOUT)
PRODUCT TANK (BREAKOUT)
MIX TANK (BREAKOUT)

SHORELINE

MAIN LINE
SPCC Requirements for Preparation and Implementation (112.3) continued,

- Professional Engineer (PE) must certify:
  - Is familiar with the rule
  - PE or agent has visited and examined the facility
  - Plan is prepared in accordance with good engineering practice (considering applicable industry standards) and with the rule
  - Testing and inspection procedures are established
  - The plan is adequate for the facility
General Requirements for Preparation and Implementation [112.7(a)]

- Plan must be **signed by owner/operator**, 
- Plan must follow the sequence of the rule (112.7) or cross reference, 
- Equivalent environmental protection 
- Must have detailed facility diagram 
- Describe prevention and countermeasures 
  - Type of oil and capacity of each container 
  - Prevention measures provided for all oil handling and storage 
  - Discharge or drainage controls 
  - Countermeasures, disposal, and reporting a discharge
• Plan must have a spill prediction section describing what would be a likely cause of a spill and where it would flow,
• Plan must describe what containment is used such as:
  – Dikes or berms that are sufficiently impervious to contain spilled oil until it is cleaned up,
  – Curbing, culvering, gutters or other drainage,
  – Weirs, booms or other barriers,
  – Spill diversion or retention ponds.
Records must be made according to the frequency and procedures that the facility establishes in the SPCC plan,

- Sign and keep with the plan for 3 years,

- Records must include:
  - Tank, piping, valve inspections and testing,
  - Water drained from dikes,
  - SPCC plan 5 year review,
Bulk Storage Tank Requirements [112.8(c)]

- Tank’s material must be compatible with the oil stored and conditions of storage,
- Secondary containment must:
  - Hold the entire contents of the largest tank,
  - Plus sufficient freeboard for rainfall,
  - Be sufficiently impervious to hold a spill until it can be detected and cleaned up,
  - Be free of vegetation that would compromise imperviousness and inhibit inspections,
FRP/SPCC
Deficiencies
Agency Observations

Problems commonly found in Facility Response Plans (FRPs)
Common FRP Problems
General Information

• Name of protected waterway or environmentally sensitive area omitted
• Number of underground storage tanks (USTs), UST oil storage or drums/small container storage omitted
• Facility’s status with respect to the significant and substantial harm criteria not stated
Common FRP Problems
Worst Case Discharge Planning

- Worksheet to Plan Volume of Response Resources for Worst Case Discharge not completed [40 CFR 112, Attachment E-1 / E-2]
Common FRP Problems
Introductory Materials

• Inadequate cross reference sheet and table of contents
Common FRP Problems
ERAP

- ERAP not provided as a separate section in the front of the Response Plan, or as a separate document accompanying the Plan
- Qualified individual’s response training experience not described
- Notification list items missing
  - Wastewater treatment facility(s) name and phone number (recommended)
  - Factories/utilities with water intakes
  - Trustees of sensitive areas (recommended)
  - Wrong U.S. EPA region duty officer phone number
Common FRP Problems
Response Equipment

• Facility failed to have, or to document, the availability of 1,000 feet of boom, deployable within one hour
  – For example, facility relies on an Oil Spill Removal Organization (OSRO) for a boom, but OSRO response time is greater than one hour

• List of response equipment to be provided by an OSRO is not stated

• Response Equipment Testing and Deployment Drill Log is inadequate or incomplete
Common FRP Problems
Personnel

Inadequate or incomplete information:

• Emergency response personnel information
  – Type and date of response training

• Emergency response contractor information
  – Response time
  – Evidence of current contractual arrangements

• Facility response team information
  – Response time
  – Name of emergency response contractor, response time, phone/pager
Common FRP Problems
Evacuation Plans

Items missing or inadequately addressed, e.g.:

- Location of stored materials
- Hazard imposed by spilled materials
- Spill flow direction
- Prevailing wind directions and speed
- Water currents, tides, or wave conditions
- Arrival route of emergency response personnel and equipment

- Alternate evacuation routes
- Transportation of injured personnel to medical facility
- Location of alarm/notification systems
- Mitigation command center location
- Facility shelter location
- Community evacuation plans referenced
Common FRP Problems
Hazard Evaluation

Items missing or inadequately addressed, e.g.:

• Information provided on surface impoundments
  – If a facility has no surface impoundments, it should be so stated

• Labeled schematic drawings

• Secondary containment volumes
Common FRP Problems
Vulnerability Analysis

Analysis of potential effects on the following resources is missing:

- Schools
- Medical facilities
- Residential areas
- Businesses
- Endangered flora & fauna
- Recreational areas
- Transportation routes
- Utilities
Items missing or inadequately addressed, e.g.:

- Horizontal range of potential spill
- Vulnerability to natural disaster (earthquake zones)
- Tank age
- Other factors (unstable soils, karst topography, etc.)
Common FRP Problems
Reportable Oil Spill History

Items missing or inadequately addressed, e.g.:

- Amount that reached navigable waters
- Effectiveness and capacity of secondary containment
- Steps taken to reduce possibility of reoccurrence
- Total oil storage capacity of tank(s) from which material discharged
- Enforcement actions
- Effectiveness of monitoring equipment
- Spill detection
Common FRP Problems
Discharge Detection Systems

• **Discharge detection by personnel**
  – Description of initial response actions
  – Emergency response information

• **Automated discharge detection**
  – Description of automatic spill detection equipment (overfill alarms, secondary containment sensors)
  – Description of alarm verification procedures and subsequent actions
Common FRP Problems
Discharge Detection Systems

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Common FRP Problems
Containment and Drainage Planning

Items missing or inadequately addressed, e.g.:

• Containment volume
• Construction materials in drainage troughs
• Type and number of valves and separators in drainage system
• Sump pump capacities
• Containment capacities
Common FRP Problems

Diagrams

Site Plan Diagram - Items missing or inadequately addressed, e.g.:

• Correct scale
• Contents and capacities of bulk oil storage tanks and drums
• Location and capacity of secondary containment
Need More Info?

• Website: [www.epa.gov/oilspill](http://www.epa.gov/oilspill)

• National Hotline: 1-800-424-9346

• Regional Contacts:
  Donald P Smith – [smith.donaldp@epa.gov](mailto:smith.donaldp@epa.gov)
  214-665-6489