

Recent Developments in Spill Prevention, Control and Countermeasures (SPCC) and Stormwater Permitting Regulations



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URS

Agenda

- SPCC Regulatory Update
- Streamlining SPCC Requirements
- Stormwater Regulatory Update
- Streamlining Stormwater Requirements
- Combined Plans

SPCC Background

- The original SPCC Rule was published in the early 1970s.
- In January 1988, a 4-million gallon aboveground storage tank (AST) in Floreffe, Pennsylvania experienced a brittle fracture of the tank shell, and approximately 750,000 gallons of diesel were released into the Monongahela River.
- Result: realization that the existing SPCC Rule needed to be strengthened.

Florence, PA Brittle Fracture



SPCC – 1990s Revisions

- 1991: Revised applicability and addition of facility notification requirements.
- 1993: Facility Response Plan (FRP) Rule, brittle fracture requirements, ability for EPA Regional Administrator (RA) to require plan amendments.
- 1997: Allowed for alternative plan formats, clarified normal business records, extended review time.

SPCC – 2002 Revisions

- Eliminated single container capacity of 660 gallons as a threshold.
- New minimum container size threshold of 55 gallons.
- Exempted underground storage tanks (USTs) subject to 40 CFR 280/281, although they still must be depicted on the facility diagram.
- Exempted wastewater treatment facilities; however, the production, recovery, or recycling of oil is not considered wastewater treatment.

SPCC – 2002 Revisions

- RA, at their discretion, can require a facility to prepare an SPCC Plan.
- Added new definitions (alteration, breakout tank, bulk storage container, bunkered tank, completely buried tank, facility, partially buried tank, permanently closed, production facility, repair, storage capacity, and wetlands).
- Oil-filled electrical, operating, and manufacturing equipment is not considered bulk storage (but still require general secondary containment).
- Revised PE certification statement.
- Copy of SPCC Plan must be maintained at the facility if attended at least 4 hours a day (reduced from 8).

SPCC – 2002 Revisions

- Changed discharge notification to the RA (discharge reporting requirement did not change).
- Changed review period from 3 to 5 years.
- Authorized use of alternative formats.
- Removed spill history.
- Added environmental equivalence.
- Added facility diagram requirement.
- Identified information for use in a discharge.
- Clarified general secondary containment requirement.
- Added impracticability/integrity testing.

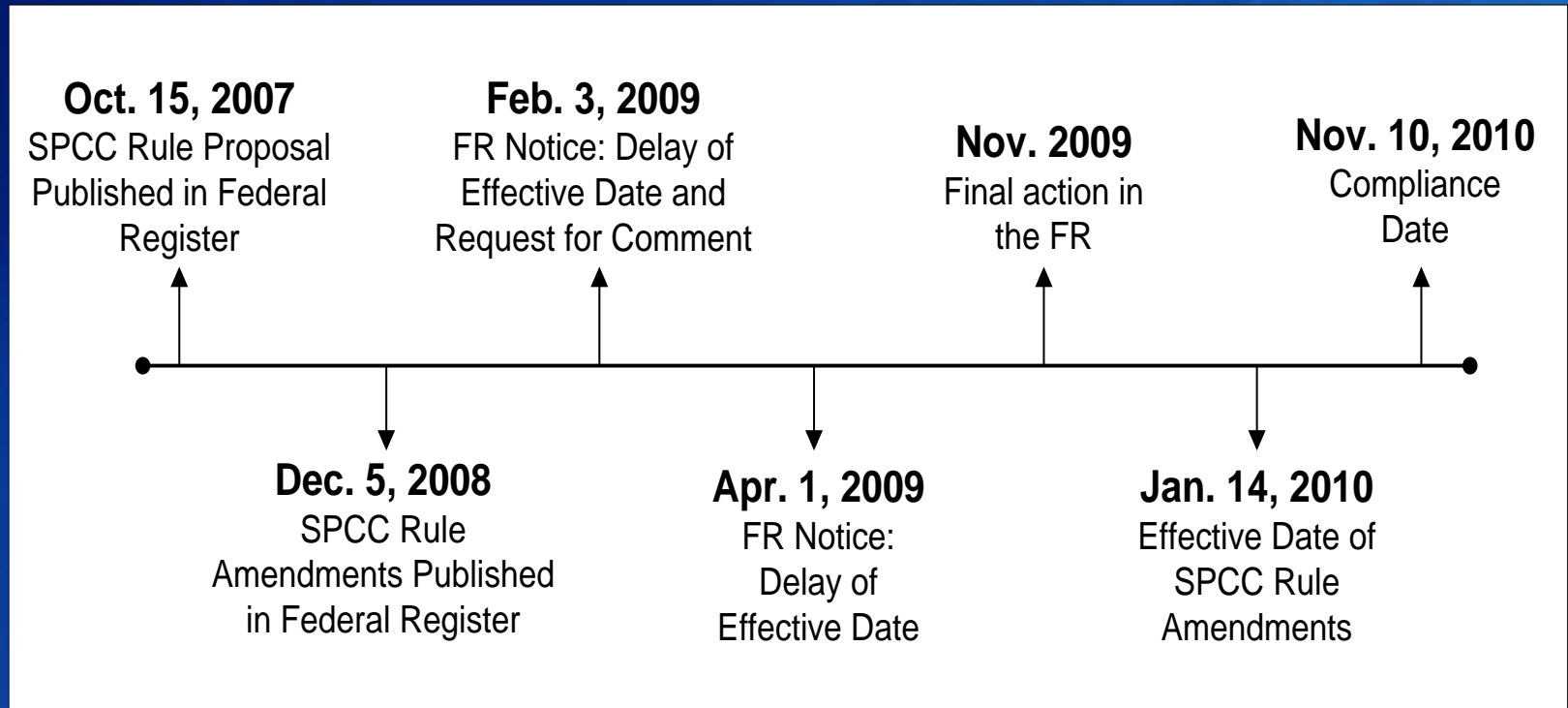
SPCC – 2002 Revisions

- Use normal business records to comply with the rule.
- Revised employee training to only oil-handling personnel.
- Added brittle fracture evaluation.
- Revised secondary containment requirements to include sufficient freeboard.
- Integrity testing per “industry standards” (changed from “periodic”).
- Cathodic protection required on piping installed after August 16, 2002.
- Reorganization of format.

Results?

- Extensions
- Lawsuits
- Clarifications
- Confusion

Regulatory Timeframe



Source: www.epa.gov/oilspill

SPCC – 2008 Amendments

- Exempted:
 - Hot mix asphalt tanks.
 - Pesticide application equipment and pesticide mixing containers.
 - Single-family residential heating oil containers.
 - Nuclear Regulatory Commission (NRC)-regulated USTs.
- Modified definition of facility.
- Increased flexibility with the facility diagram.
- Provided the definition of a loading rack.
- Tier I and Tier II facilities.

SPCC – 2008 Amendments

- Clarified that general secondary containment need only account for typical failure modes (not worst case).
- Extended exemption for mobile refuelers to non-transportation tank trucks (i.e., distributing lubricant oils).
- Added performance-based security requirements.
- Changed integrity testing requirements – revised language to “test or inspect.”
- Changed requirements for oil-production facilities.
- Defined wind turbines as oil-filled operating equipment.

2009 Amendments

- Incorporated, without changes, the majority of the 2008 regulations.
- Removed certain provisions from the 2008 regulations.
- Made technical corrections to the 2008 regulations.
- Many of the changes/corrections refer to a small subset of regulated facilities.

A facility starting operation...	Must...
On or before August 16, 2002	Maintain its existing SPCC Plan Amend and implement the SPCC Plan no later than Nov. 10, 2010
After August 16, 2002 through Nov. 10, 2010	Prepare and implement the SPCC Plan no later than Nov. 10, 2010
After Nov. 10, 2010	Prepare and implement a SPCC Plan before beginning operations* <small>* Owners or operators of new oil production facilities must prepare and implement an SPCC Plan six months after the start of operations.</small>

SPCC – Additional Items

- Definition of Waters of the State:
 - Currently, the definition has defaulted to the 1970s definition of navigable waters.
 - The EPA has clarified that swales or erosional features and ditches which drain uplands and are not permanently wet, do not meet the definition.

Streamlining SPCC – Easy Ways

- Make sure that the material is actually an oil.
- Consider reducing the amount of oils on site.

Streamlining SPCC – Qualified Facilities

- Tier I Qualified Facilities:
 - Have <10,000 gallons of oil
 - No single container >5,000 gallons
 - No single discharges >1,000 gallons and no two discharges >42 gallons in the previous year.
 - Can use the “fill in the blank” SPCC plan format.

Streamlining SPCC – Qualified Facilities

- Tier II Qualified Facilities:
 - Are same as Tier I, except may have a tank larger than 5,000 gallons.
 - They can prepare a standard plan with no PE certification.

Streamlining SPCC – Qualified Facilities

- Biggest advantage is not having to have PE certification for changes such as adding/removing tank (note: PE certification is still required for impracticability determinations such as lack of secondary containment).
- Check that there are no state requirements for PE certification!

Streamlining SPCC – Facility

- Facility:
 - “...the owner or operator has the discretion to determine what constitutes a facility.” (Federal Register 73 No. 235 P. 74244)
- Allows for separating plans or determining threshold by personnel, operating unit, or other characteristics.

Definition of “Facility”

- *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.

Streamlining SPCC – Facility

- Example – a contiguous “facility” has two buildings with completely separate management, business purposes, personnel, and reporting structure. One building has oil below the threshold, one building has oil above the threshold. Under the new definition, the owner/operator could separate the facilities and prepare one SPCC plan only for the building which has oil stored over the threshold.

Streamlining SPCC – Facility

- Under the new definition, it is acceptable to prepare two separate plans, where each facility is responsible for complying with their own SPCC plan.
- Cannot use this definition to avoid complying. End result could be better overall protection from spills.

Streamlining SPCC – Loading Rack

- *Loading/unloading rack* means a fixed structure (such as a platform, gangway) necessary for loading or unloading a tank truck or tank car, which is located at a facility subject to the requirements of this part. A loading/unloading rack includes a loading or unloading arm, and may include any combination of the following: piping assemblages, valves, pumps, shut-off devices, overfill sensors, or personnel safety devices.

Streamlining SPCC – Loading Rack

- The concept of a loading/unloading arm is key.
- Sized secondary containment is only required for a rack.
- Also need to watch for transportation vs. non-transportation issues, especially when transloading. Rack may not be subject to SPCC requirements.
 - Refer to EPA/DOT Memorandum of Understanding:
<http://www.epa.gov/emergencies/docs/oil/cfr/40cfr112appa.pdf>

Loading Rack



Streamlining SPCC - Security

- No longer a prescriptive requirement, now it is performance-based and tailored to the specific facility.
- Facility has to document:
 - Secure and control access to oil storage areas.
 - Secure master flow/drain valves.
 - Prevention of unauthorized access to starter controls on oil pumps.
 - Secure pipelines.
 - Security lighting to prevent vandalism and assist with discovering a release.

Streamlining SPCC – Integrity Testing

- Acceptable to test *or* inspect.
- Good engineering practices for 55-gallon drums, such as elevation of drums on pallets so that all sides are visible, is considered environmentally equivalent to integrity testing.
- For shop-built containers with a shell capacity of <30,000 gallons that are elevated above the ground (either on saddles or with an impervious liner) that can be inspected on all sides do not require integrity testing.

Stormwater Update – New MSGP

- New MSGP issued on September 29, 2008.
- Applies to relatively few states, since most have their own approved plan.
- However, it has implications for future revisions to state-specific permits.

Stormwater Update – New MSGP

- Permit clarified:
 - Installation of stormwater controls.
 - Inspection and monitoring requirements.
 - Stormwater Pollution Prevention Plan (SWPPP) Development.

Stormwater Update – New MSGP

- New requirement to report annual inspection findings.
- Requires identification of waterbodies and pollutants of concern.
- eNOI and eDMR.
- Consideration of endangered species, historic properties, National Environmental Policy Act (NEPA) review.

Stormwater Update – New Resources

- Even if your facility is not subject to the MSGP, take advantage of the new resources available on the EPA's website:
 - General stormwater program:
http://cfpub.epa.gov/npdes/home.cfm?program_id=6

Stormwater Update – New Resources

- Resources at <http://cfpub.epa.gov/npdes/stormwater/indust.cfm> include:
 - Industrial Stormwater Permit Guide
 - Water Locator Tool
 - Industrial Sector Fact Sheets
 - Conditional “No Exposure” Exclusion

Stormwater Update – New Resources

- Resources at http://cfpub.epa.gov/npdes/stormwater/msgp.cfm#msgp2008_swppp include:
 - SWPPP format and development guidance
 - Industrial Stormwater Monitoring and Sampling Guide
 - Sample recordkeeping documents

Stormwater Update – Construction Permits

- As the result of a lawsuit filed by the Natural Resources Defense Council, EPA is required to establish effluent limitation guidelines and New Source Performance Standards (NSPS) for the construction and development industries.

Stormwater Update – Construction Permits

- Proposed regulation:
 - Establishes new minimum requirements for Best Management Practices (BMPs).
 - Construction sites disturbing ≥ 10 acres would have to install sediment basins.
 - Construction sites disturbing ≥ 30 acres in certain parts of the country (based on soil conditions) would be subject to a numerical effluent limitation for turbidity.

Stormwater Update – Construction Permits

- 12/1/09 Final Effluent Limitation Guidelines (ELGs) and NSPS.
- Turbidity limit of 280 NTU.
- Beginning 8/1/2011, all sites disturbing 20+ acres of land must comply with turbidity limit.
- Beginning 2/2/2014, all sites disturbing 10+ acres of land must comply with turbidity limit.
- All construction sites must comply with erosion and sediment controls.
- Applies to all states.

Proposed Rulemaking Affecting MS4s

- EPA is seeking input on:
 - Expanding the area subject to regulation
 - Establish requirements for new development
 - Develop single set of regulations for MS4s
 - Protect sensitive areas
 - Improving stormwater control measures

Streamlining Stormwater – No Exposure Certification (NOEC)

- Avoid permitting altogether!
- Light industrial facilities can seek the NOEC, often with minimal changes to the facility.
- If in doubt, ask a regulator.

Streamlining Stormwater – NOEC

- Final products stored outside which are meant to be used outside (automobiles, etc.) are exempt.
- Racks, pallets, containers are also exempt provided that they are clean.
- Build storm shelters, if possible (especially for fueling areas).

Streamlining Stormwater – NOEC

- Storm shelters are not required for:
 - Drums, barrels, tanks that are sealed and *stored* outside that are in good condition.
 - ASTs that are separate from vehicle maintenance and have no piping, pumps, or other equipment that could leak contaminants and create an exposure.
 - Lidded dumpsters are exempt provided that materials are covered and nothing can drain out of the bottom.
 - Adequately maintained vehicles.
 - Air emissions which are permitted and do not create stormwater contamination.

Streamlining Stormwater – NOEC

- But watch out for:
 - Leaching from metal structures such as dissolved metals.
 - Pollutants mobilized by wind.
 - Changing conditions.
 - Air emissions not covered under permit (such as paint overspray).
 - Ineffective shelters.

Streamlining Stormwater – NOEC

- Depending on the costs/requirements of individual state permit, it may make sense to invest money into modifying your facility to qualify for the NOEC.
- For more information, consult the EPA “Guidance Manual for Conditional Exclusion from Storm Water Permitting Based on “No Exposure” of Industrial Activities to Storm Water.”

Streamlining Stormwater – Representative Outfalls

- “When a facility has two or more outfalls that, based on consideration of features and activities within the area drained by the outfall, the permittee reasonably believes discharge substantially identical effluents, the permittee may sample the effluent of one such outfall and report that quantitative data also applied to the substantially identical outfalls.”

Streamlining Stormwater – Representative Outfalls

- Can potentially save both time and money since there are fewer analytical costs and less visual observations to do.
- Evaluate how outfalls are described in SWPPP - if described differently, the regulator has no choice but to require separate sampling.
- Check permit to evaluate whether required to apply for this waiver in advance.

To Combine or Not to Combine?

- There is significant overlap between the SPCC plan and SWPPP requirements:
 - Contact information
 - Emergency procedures
 - Training
 - Update requirements
 - Inspections
 - Discharge of stormwater from containment

To Combine or Not to Combine?

- Reasons to combine:
 - Combining the plans can make sense for some facilities based on their characteristics.
 - Can combine SPCC and SWPPP inspection requirements.
 - Instead of changing two sets of contact information and conducting two plans reviews, just do one.
 - Less chance of having plans contradict each other.

To Combine or Not to Combine?

- Reasons not to combine:
 - Do the plans have to be submitted to an agency?
 - This may impact inclusion of information from a separate regulatory program that could be obtained through the Freedom of Information Act process.

To Combine or Not to Combine?

- What types of materials are on site?
- If there are a substantial amount of oils subject to SPCC which are stored inside and do not come into contact with storm water, it might make more sense to keep the plans separate.
- Conversely, if there are several areas/materials with no oils, it might make more sense to keep the plans separate.

To Combine or Not to Combine?

- What personnel are responsible for the programs?
 - If separate people/departments are responsible for the programs, separate plans might be a better option.
 - If one person/department is responsible for the programs, consider combining.

To Combine or Not to Combine?

- If separate, make sure to communicate changes/updates to plans.
- Consider what your regulator/inspector prefers to see.
- Always include a cross reference table!

Questions?

- For more information:

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