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SPCC PLANNING FOR OIL-CONTAINING ELECTRICAL EQUIPMENT

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OUTLINE

- SPCC Overview
- Regulatory Developments
- Requirements for Electrical Equipment
- Containment for Electrical Equipment
- Case Study/Success Story
- Conclusion

SPCC OVERVIEW

- SPCC – Spill Prevention, Control, and Countermeasures
- Establishes procedures, methods, and equipment requirements to help prevent oil spills that could reach navigable waters
- Requires covered facilities to prepare SPCC Plans
- Authority: The Clean Water Act, Section 311
- SPCC Regulations – 40 CFR Part 112
  - Subpart A – General requirements
  - Subparts B and C – Specific facility requirements

SPCC OVERVIEW

- Covered Facility:
  - Potential to discharge oil to navigable waters; and
  - Aggregate aboveground storage capacity > 1,320 gal (counting all containers of 55 gal and over); or
  - Aggregate underground storage capacity > 42,000 gal (not covered by 40 CFR 280 and 281)
- Applicable to facilities engaged in drilling, production, gathering, storing, processing, refining, transferring, distributing, using, or consuming oil

REGULATORY DEVELOPMENTS

- SPCC Regulation Timeline:
  - 1974 – Original regulation
  - 2002 – Final SPCC Regulation incorporating several rules proposed in 1990s (Referred to as the SPCC Rule)
    - Raised regulatory threshold
    - Raised spill reporting threshold
    - Increased plan review frequency from 3 to 5 years
    - Regulations apply to operators that “use” oil
    - Changed language from “should” to “must”
    - Established brittle fracture evaluation
    - Allowed equivalent environmental protection or developing contingency plans in meeting many rule provisions

REGULATORY DEVELOPMENTS

- 2006 – December 2006 Amendments (SPCC I) – Final
  - Alternative requirements for qualified facilities with capacities < or = 10,000 gal
  - Alternative requirements for qualified oil-filled operational equipment
  - Exempted motive power containers
  - Relaxed containment requirements for mobile refuelers
  - Eliminated certain requirements for animal fats and vegetable oils

REGULATORY DEVELOPMENTS

- 2007 – October 2007 Amendments (SPCC II) – Proposed
  - Proposed in October 2007; comment period ended
  - Qualified facilities divided into Tier I and Tier II facilities
  - Proposes template for Tier I facilities in lieu of full SPCC Plan
  - Expands the list of exemptions (hot-mix asphalt, residential heating oil containers, tanks at nuclear facilities, and some farm equipment)
  - Adds flexibility in security and integrity testing requirements
  - Clarifies “facility” definition and defines “loading/unloading rack”
  - Streamlines requirements for oil production facilities

REGULATORY DEVELOPMENTS

- Several compliance date extensions to accommodate litigation, clarifications, and issuance of updated guidance
- Latest Compliance Deadlines:

A facility (other than a farm) starting operation…..	***Must…..***
on or before 08/16/2002	Maintain its existing plan Amend and implement the plan by 07/01/2009
After 08/16/02 through 07/01/2009	Amend and implement the plan by 07/01/2009
After 07/01/2009	Prepare and implement a plan before beginning operations

REQUIREMENTS FOR ELECTRICAL EQUIPMENT

- Regulatory options
  - No potential for release to navigable water – no need for a plan!
  - Traditional PE-certified SPCC plans for qualified/all other facilities
  - Self-certification of qualified facilities/equipment
  - Template plans for Tier I facilities, if/when SPCC II amendments are finalized
- Oil-filled equipment is not considered as bulk storage; Section 112.8 specific containment and integrity testing do not apply
- Section 112.7, general containment still applies

REQUIREMENTS FOR ELECTRICAL EQUIPMENT

- Qualified facilities/oil-filled equipment:
  - Aggressive management program allowed in lieu of physical containment
  - No need to demonstrate impracticability
  - Combination of Inspections & Maintenance (I/M) program, contingency plan, and written commitment of resources can be used in lieu of containment
  - Flexibility in addressing facility security
- Containment/diversion options - examples
  - Active/passive measures
  - Containment pits
  - Dikes, berms, curbs
  - Sorbents (e.g., imbiber beads)

CONTAINMENT FOR ELECTRICAL EQUIPMENT

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- EPRI's Mineral Oil Spill Evaluation System (MOSES) computer model
- Site-specific data input (oil volume, surface characteristics, distance to water, etc.)
- Model runs up to 10,000 simulations with combinations of release rates, weather conditions, etc.
- Quantifies probability of impacting navigable waters
- This probability is used in the decision making process to determine if containment is needed

CASE STUDY / SUCCESS STORY

- Developed SPCC plans for a utility located in EPA Region III with over 200 facilities in accordance with the 2002 and 2006 SPCC Rules
- Mostly unmanned facilities with transformers, oil-containing breakers (OCBs), capacitors and oil-containing cables
- Several facilities located in sensitive environments
- Reduced the number of containment recommendations by 50 to 75% by using MOSES model for decision making
- ENSR's approach resulted in the withdrawal by the EPA of three notices of non compliance and approval of ENSR's decision-making process (with no changes to the SPCC plans)

CONCLUSIONS

- The SPCC Rule amendments provide multiple options to the utilities. These options can be tailored to match specific utility's risk tolerance
- Our experience and decision-making process has been tested and proven to be successful in EPA Region III and elsewhere
- Questions:

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