

DE-MYSTIFYING THE OIL SPCC RULES

Presented at the 2004 College and University Hazardous Waste Conference, Virginia Tech

Prepared by:

Charlotte Perry, Project Scientist
and
Karen Townsend, P.E., Project Manager

Woodard & Curran
41 Hutchins Drive
Portland, ME 04102
Tel. 800-426-4262
cperry@woodardcurran.com
ktownsend@woodardcurran.com

Background

On July 17, 2002, the U.S. Environmental Protection Agency (EPA) issued a new rule amending the Oil Pollution Prevention regulations at 40 C.F.R. Part 112. This new rule is the outcome of several proposed rule changes that have been underway since 1991. The final rule, which became effective on August 16, 2002, revises the Oil Spill Prevention Control and Countermeasure (Oil SPCC) Plan and Facility Response Plan (FRP) requirements and, in some instances, may decrease the regulatory burden on oil storage facility owners and operators. EPA estimated that the rule change would ease the paperwork burden associated with Oil SPCC requirements by approximately 40%.¹ The changes were written in a “plain language format” intended to make the rule easier to understand and use. EPA attempted to clarify policies within the Preamble to the rule. However, several provisions in the new rule have resulted in confusion within the regulated community as opposed to clarity, and EPA was sued on five key issues through four lawsuits. Meanwhile, most facilities must amend their existing Oil SPCC Plans to ensure compliance with the new rule, and have been trying to determine how the changes will affect their oil storage facilities and pollution prevention practices.

This paper is intended to de-mystify the Oil SPCC regulations and help Environmental Health & Safety (EHS) managers: (1) understand how the new rule impacts their oil storage facilities; (2) be aware of the unique oil storage issues and compliance challenges that affect colleges and universities; and (3) take advantage of the “equivalent environmental protection” provisions within the rule. The outcome of the recent litigation settlement and plans for upcoming regulatory guidance from EPA are also discussed.

Regulatory Deadlines Extended

The July 17, 2002, regulatory amendments contain compliance deadlines by which an existing facility must amend its Oil SPCC Plan to comply with the changes, and then implement the amended Plan. In recognition of the range of concerns raised by the regulated community and to avoid a potentially large number of individual facility requests for extensions, EPA issued an 18-month extension to the original regulatory deadlines on April 17, 2003. As a result, facilities that were in operation on or before August

¹ 67 Federal Register, 47042, July 17, 2002.

17, 2002, were required to maintain their existing Plan and amend it, if necessary, by August 17, 2004.² Plan amendments were to be implemented by February 18, 2005.

Then on June 17, 2004, just two months before the regulatory deadline, EPA announced a proposed rule to further extend the compliance deadline by an additional 12 months. EPA proposed this second extension, in part, because of the partial settlement of litigation (discussed below) and to allow sufficient time for the regulated community to take the actions necessary to update their Plans. Under the 12-month extension, the new regulatory deadlines are August 17, 2005, to amend existing Plans, and February 18, 2006, to implement the amendments. EPA's extension of the regulatory deadlines was also intended to allow time for EPA to develop and issue guidance documents that will assist the regulated community in interpreting the rule changes.

Highlights of the New Rule

Major changes in the rule include: clarification of several definitions, changes in the oil storage thresholds, deletion of the 660-gallon aboveground storage tank threshold, additional Professional Engineer (P.E.) certification language, mandatory plan reviews every five years (rather than three years), and new facility diagram requirements. Some of the highlights of the rule are the following:

1. The new rule clarifies the definition of an oil storage "facility," which is defined as any mobile or fixed, onshore or offshore building, structure, installation, equipment, pipe, or pipeline in which oil is used, including well drilling operations, oil production, oil refining, oil storage, oil gathering, oil transfer, oil distribution, and waste treatment. In other words, a "facility" may be as small as a piece of equipment, such as a tank, or as large as a military base or college campus.
2. EPA defines oil as "oil of any kind or in any form, including (but not limited to): fats, oils, or greases of animal, fish, or marine mammal origin; vegetable oils, including oils from seeds, nuts, fruits, or kernels; and other oils and greases, including petroleum, fuel oil, sludge synthetic oils, mineral oils, oil refuse, or oil mixed with waste other than dredged spoil." This definition clarifies that the Oil SPCC rules are not limited to petroleum-based oil products. For example, "oil" includes virgin cooking oils and waste kitchen grease that are used/generated in campus dining halls. The definition also includes hydraulic, lubricating, and mineral oils.
3. Facilities are subject to the Oil SPCC rules if they have over 42,000 gallons of underground oil storage capacity or over 1,320 gallons of aboveground oil storage capacity. The "660 gallons in one aboveground container" threshold no longer applies. These minimum thresholds apply to tanks, containers, and operating equipment, and do not apply to permanently closed tanks. However, in determining the aboveground oil storage capacity, the new rule clarifies that only containers of oil with capacities of 55 gallons or greater are counted. In determining the total underground oil storage capacity, underground storage tanks (USTs) subject to all of the technical requirements of 40 CFR Part 280 or 281 should not be counted. However, if a facilities' existing Plan already addresses USTs and there is no other type of UST management plan in place for the facility, consideration should be given to keeping the USTs in the Plan as a best management practice.
4. Oil SPCC Plans must be certified by a registered P.E., who must attest to a "5-Point Certification" in the Plan. Specifically, P.E.s must attest that:

² Facilities that become operational after August 17, 2002, are required to prepare and implement their Plan in accordance with the deadlines in the original rule.

- They are familiar the requirements of the rule;
 - They or their agent have visited and examined the facility;
 - The plan has been prepared in accordance with good engineering practices, including consideration of applicable industry standards and with the requirements of the rule;
 - Procedures for the required testing and inspection have been established; and
 - The plan is adequate for the facility.
5. The owner/operator must review the facility's Oil SPCC Plan at least once every five years, document the completion of the review and evaluation, and sign a statement as to whether he/she will amend the Plan. If amendments are required, they must be completed within six months of Plan review, and technical amendments must be certified by the P.E. Further, existing Oil SPCC Plans must be amended to ensure compliance with the revised rule by the regulatory deadlines, which, as currently proposed, are August 17, 2005, to amend existing Plans and February 18, 2006, to implement the amendments.
 6. The new rule requires Oil SPCC Plans to include a description of the physical layout of the facility and a facility diagram that must show:
 - Location and contents of each oil storage container (tanks, drums, and operating equipment);
 - Completely buried tanks (even though they may not be addressed in the Plan); and
 - Locations of transfer stations and connecting pipes.
 9. The new rule, like the old rule, requires owners/operators to provide adequate secondary containment for all bulk oil storage containers subject to the Oil SPCC rules³. If it is impracticable to provide secondary containment, you must: (1) explain why in the Plan; (2) provide a strong spill contingency plan in accordance with 40 CFR Part 109; (3) provide a written commitment of manpower, equipment, and materials required to expeditiously control and remove any quantity of oil discharged; and (4) conduct periodic integrity testing of the containers, valves, and piping.
 10. Secondary containment for tank car and tank truck loading and unloading racks must be capable of containing the maximum capacity of any single compartment of tank car or tank truck unloaded at the facility. (Additional discussion of the interpretation of this requirement is provided below.)
 11. Integrity testing must be performed for aboveground tanks and containers on a regular schedule and when material repairs are performed. Visual inspections must be conducted frequently for aboveground tanks and containers. Inspection and testing programs should be developed as appropriate for the specific tank systems (e.g., shop-fabricated or field erected steel ASTs) and the provisions within applicable industry standards (e.g., Steel Tank Institute or American Petroleum Institute).
 12. Oil SPCC training is only required for oil-handling employees. The training must cover additional topics specified in the new rule, and training must be documented. Discharge prevention briefings, which are a separate requirement from the Oil SPCC training, must be conducted on an annual basis.

³ Bulk oil storage container is defined as any container used to store oil. The definition states that oil-filled electrical, operating, or manufacturing equipment is not a bulk storage container.

13. Oil SPCC Plans can be written in different formats, so long as they include all of the applicable SPCC plan requirements and cross-reference provisions (e.g., they should have a cross-reference table).

Recent Oil SPCC Regulatory Actions

On March 31, 2004, EPA Oil Program personnel conducted an Oil SPCC Stakeholders meeting in Washington, D.C., in which they presented the results of several recent Oil SPCC regulatory actions. EPA partially settled four of the five legal challenges to certain provisions of the new rule that were brought against them by members of the regulated community. They presented the results of the settlement agreement along with additional interpretations on several key SPCC issues, including those listed below.

Integrity Testing and “Equivalent Environmental Protection”:

40 C.F.R. Part 112.8(c)(6) states that each aboveground storage container must be tested for integrity on a regular schedule and whenever material repairs are made. Frequent visual inspection must be combined with another testing technique. However, Part 112.7(a)(2) states that Plans may deviate from certain requirements of the rule if “equivalent environmental protection” is provided by some other means of spill prevention, control, or countermeasure. The requirement for secondary containment is not one of the requirements from which a facility owner may deviate; all storage containers must have secondary containment. As an example, EPA agreed to the Plaintiff’s request that for well-designed, shop-built containers with a shell capacity of 30,000 gallons or under that are not in contact with the soil, appropriate visual inspection (in accordance with the applicable industry standard) will provide “equivalent environmental protection.” The determination of “equivalent environmental protection” must be documented in the Oil SPCC Plan as described in Part 112.7(a)(2). EPA indicated that guidance on appropriate visual inspection of shop-built containers would be forthcoming in the near future. For facilities that can meet the criteria within this provision, considerable savings may be realized and inconvenience avoided when integrity testing is not required.

Loading/Unloading Racks:

40 C.F.R. Part 112.7(h) states specific provisions for tank car and tank truck loading/unloading racks that include the requirement for secondary containment with the maximum capacity of any single compartment of tank car or tank truck unloaded at the facility. This provision along with language in the Preamble to the rule lead to confusion about the definition of the term “loading/unloading rack” and the applicability of this requirement. EPA clarified in the settlement agreement that they did not intend to interpret the term “loading/unloading rack” or to apply this requirement, generally, to fuel transfer areas. If a facility does not have a “loading and unloading rack,” 40 C.F.R. Part 112.7(h) does not apply. A fill pipe located at the exterior of a building or a fill connection at the tank, as typically found at many colleges and universities, is not considered a “loading/unloading rack,” and secondary containment for the delivery vehicle is not required.

Security:

40 C.F.R. Part 112.7(g)(1) states that owners must fully fence each facility handling, processing, or storing oil, and lock and/or guard entrance gates when the facility is unattended. This provision can be particularly difficult for colleges and universities where access to the campus is generally unrestricted. EPA clarified that adequately fencing all discrete areas of the facility directly involved in the handling, processing, pumping, and storage of oil would provide “equivalent environmental protection” compared

to fencing the entire facility footprint, since it is this equipment that poses the potential risk for harm that fencing was intended to address. For colleges and universities, the focus of compliance with this provision is to restrict access to tanks and their associated switches, pumps, and controls to responsible college and university personnel.

“Impracticability” and Cost:

40 C.F.R. Part 112.7(d) states that where secondary containment is “not practicable,” a facility may use a contingency plan instead. The Preamble to the rule discussed the role of cost as a factor for determining “impracticability,” and EPA stated that they did not believe it was appropriate to consider cost or economic impact as a reason to not provide secondary containment. Other factors such as space limitations, local zoning ordinances, fire prevention, or safety considerations may be appropriate factors for making this determination. EPA is firm in their belief that secondary containment is an important component and the preferred method for prevention of discharges.

EPA has indicated that they are evaluating several options to address other issues associated with implementation of the new rule. One option being considered is additional rule-making to address specific aspects of the rule, such as a definition for “loading/unloading rack.” At the March 31st meeting, EPA indicated that they would release their decision on the implementation strategy within a few weeks. However, as of June 17, 2004, there had been no announcement of a strategy decision, other than announcing proposed rule-making to extend the regulatory deadline.

Oil SPCC Issues at College and University Campuses

Management of oil storage facilities at colleges and universities can present some unique issues and challenges, as compared to those faced by the manufacturing sector. Colleges and universities often use, store and generate a wide variety of oil products on campus: heating oils (No. 2 or No. 6), gasoline and/or diesel fuel for vehicles and equipment, hydraulic and lubricating oils for vehicle and equipment maintenance, and cooking oils used in food service operations.

There are, typically, many types of oil-containing operating equipment on campus such as: hydraulic elevators in buildings, hydraulic lifts in vehicle maintenance garages, electrical transformers throughout campus, emergency generators, and grease traps. Some campuses also have oil/water separators within a vehicle maintenance shop or within the stormwater collection system to remove oil prior to discharge to the sanitary or storm sewer.

College campuses are often large complexes where a portion of the campus may be served by a centralized heating plant providing heat and hot water through a distribution system. The remainder of campus, typically dormitories and on-campus apartment complexes, are often served by smaller ASTs (275- to 550-gallon capacity) within building basements. It’s not unusual for a college campus to have thirty or more small ASTs to manage and address within the Oil SPCC Plan. All of the requirements for secondary containment, frequent visual inspections, and periodic testing apply to these AST systems. The use of many small tanks increases the risk of a release from tank or piping failure, and during tank filling operations in many different locations.

Many colleges and universities operate facilities at remote locations such as field stations, laboratories, athletic facilities, and residential housing where oil storage facilities are located. Individually, these sites may not trigger the threshold for an independent Oil SPCC Plan. However, oil pollution prevention concerns are as important at these locations, and perhaps more so, if these facilities are not occupied on a full-time basis. Consideration should be given to incorporating these offsite locations into the main

campus Oil SPCC Plan, or developing best management practices and procedures for these facilities that incorporate the relevant elements of the Oil SPCC program.

Construction projects are common on college and university campuses. Significant projects such as construction of new buildings, dormitories and athletic facilities often involve many different contractors and subcontractors. Some may require their own supply of fuel oil onsite to serve their construction vehicles and heavy equipment. Although these oil storage facilities may be owned and operated by an outside contractor, while they are on campus there is the risk of a spill or release that could impact college or university property, or surface or ground waters. Consideration should be given to incorporating oil storage specifications within the construction contract documents to ensure that, at a minimum, contractors provide secondary containment for all oil storage tanks and containers, provide training to their personnel for proper handling of oil products, and notify the appropriate campus personnel in the event of a release. Some colleges and universities have a policy of incorporating the contractor's temporary oil storage facilities into their Oil SPCC Plan as an addendum to the Plan for the duration of the construction project.

An additional, but separate consequence of new construction at a college or university is that it often results in the addition of a new oil storage tank or operating equipment that must be added to the Plan, thus requiring a Plan amendment and recertification by a registered P.E.

States with oil storage tank regulations for USTs and/or ASTs may have specific requirements for tank registration, secondary containment, inspections, testing, employee training, and release notification that should be incorporated into the Oil SPCC Plan, as appropriate. As a minimum, the contents of the Oil SPCC Plan should not conflict with any state oil storage requirements.

At some colleges and universities, the responsibilities for oil storage facilities may reside within several departments, such as facilities management, EHS, heating plant, housing, grounds maintenance, etc. The process of developing an Oil SPCC Plan should involve all parties that have oil storage and management responsibilities. The Plan should clearly state the roles and responsibilities of the personnel with key responsibilities such as: oil release response and notification, performance of inspections and preventive maintenance, recordkeeping, and training.

Summary

Oil SPCC compliance at colleges and universities with numerous and varied oil storage facilities can be a significant task that requires considerable resources and commitment of personnel. Developing and implementing a compliant Oil SPCC Plan requires a very detailed understanding of the oil storage facilities, as well as the federal Oil SPCC rules, applicable state regulations, and the industry standards that are appropriate for the tank systems. A comprehensive and facility-specific Oil SPCC Plan is a tool for both proper management of oil storage facilities and environmental compliance. Management of oil storage tanks and operating equipment should be viewed as an important component of an overall campus asset and risk management program. The financial and public relations impacts of a significant oil spill or a violation of the federal Oil SPCC regulations could be devastating, and can be avoided with a rigorous oil pollution prevention program at your college or university.