

(MOST) EVERYTHING YOU WANTED TO KNOW ABOUT THE SPCC RULE BUT WERE AFRAID TO ASK

Some good reasons for having a proper Spill Prevention Control and Countermeasure (SPCC) Plan:

- ✚ **2012:** Louisiana oil production facilities fined \$29,400 for “*violating federal SPCC regulations.*”
- ✚ **2011:** Oregon farm fined \$34,000 for fuel spill and “*not having SPCC provisions in place.*”
- ✚ **2010 – 2011:** Idaho jobbers fined \$15,000 for having “*inadequate SPCC Plan and secondary containment.*”
- ✚ **2010:** BP’s Deepwater Horizon 5-million barrel oil spill, fined \$4.5 *billion* and more than \$42 *billion* in criminal and civil settlements *thus far.*

Did you know that?

- 5-year Plan reviews don’t always require a Professional Engineer (PE)?
- Your company’s PE is allowed to write SPCC Plans (Plans) for your facilities?
- You can write your own Plan, if you no more than 10,000 gallons of oil / fuel and have a spill-free history?
- Mobile refuelers (ie, tankers) don’t always need a Plan?
- In most cases, tankers don’t need sized secondary containment?
- Empty or full tankers can park overnight without sized secondary containment?
- Unloading areas usually don’t need sized secondary containment?
- Storage tanks without adequate ventilation can still be certified as “Suitable for Continued Service”?
- Some storage tanks only need to be inspected every 20 years?

Why this article? This article clarifies misconceptions by the regulated community regarding the SPCC Rule (40CFR §112 – the Rule), which underwent major changes from 2002 through 2009. This rule applies to non-transportation related facilities that drill, produce, gather, store, process, refine, transfer, distribute or operationally utilize oil. According to the SPCC Rule, “oil” refers to liquids containing petroleum hydrocarbons and mineral oil (a lighter-chain petroleum distillate) but also non-petroleum animal / vegetable oils and fats.

Who is subject to the Rule [40CFR §112.1]? The Rule requires a Plan for any facility having an aggregate or combined storage greater than 1,320 gallons of oil and the *potential* (reasonable expectation) to reach a nearby stream, river, pond, lake or other water body (navigable waters). Few facilities are exempt from the navigable water criteria, because the Clean Water Act considers a “stream” to include waterways that can be dry all but two months of the year!

What is a navigable water [40CFR §112.2]? In 2008, the American Petroleum Institute (API) and Marathon Oil challenged the EPA’s 2002 definition of a navigable water, whereby the U.S. District Court agreed and restored the less-restrictive 1973 definition. Today, a navigable water can be interstate and intrastate lakes, rivers and streams that are used for recreational purposes and/or from which fish or shellfish are taken for interstate commerce.

What are the benefits to having a Plan? A well-written and implemented Plan provides considerable operational benefit to your facility, by improving secondary containment systems and spill response preparedness that together prevent otherwise newsworthy spills. Spill reduction translates directly into soil / water contamination reduction which guards against costly and unpleasant regulatory compliance actions. Even though your Plan addresses the Clean Water Act, it also addresses State-mandated environmental compliance (“Clean Dirt Act”) by minimizing soil contamination at your (and your neighbor’s) facility and the costly clean-up measures that go with it!

Who can write a Plan [40CFR §112.3, 40CFR §112.6]? Until recently, only a PE was allowed to write Plans. In February 2007, the EPA amended 40CFR §112 to allow “qualified facilities” to write and “self-certify” their own Plans, provided that the facility stores no more than 10,000 gallons of oil-based fluids and has never experienced single discharges (to a *navigable* water) exceeding 1,000 gallons or never had two discharges exceeding 42 gallons within any 12-month period during the three years prior to the Plan’s certification date. However, some State engineering boards supersede this regulatory break, by still requiring PE certification.

The rule also allows PEs to write Plans for facilities owned by their employer.

Plan amendments and 5-year reviews [40CFR §112.5, 40CFR §112.6]. The rule requires that facility owners / operators conduct 5-year reviews, with or without the assistance of a PE, as needed. Facilities that cannot self-certify must have a PE certify all *technical* amendments (ie, material changes). Conversely, *qualifying* (ie, self-certified) facility owners may make all non-technical and *technical* amendments without PE certification, except when *alternative measures* to secondary containment systems are specified. All amendments must be implemented within six months after being incorporated into the Plan.

General versus sized secondary containment [40CFR §112.7(c), 40CFR §112.8(c)(2)]. The term “secondary containment” (SC) does not always indicate a containment *structure* (ie, impervious floor / berms) per se’. Unlike *sized SC*, where structures are typical, *general SC* allows for several spill prevention options like sorbents, booms and spill diversions, with *sized SC* simply being another option. Some PEs wrongly interpret general SC as *always* being a containment *structure*, much to the dismay and frustration of their clients.

Loading / unloading rack [40CFR §112.7(h)]. The loading rack is typically where tankers receive oil / fuel from an onsite storage area (ie, tank farm). Until October 2007, much confusion existed as to what comprised a loading rack, but the rule defines a loading / unloading rack to be a “fixed structure” with a “loading arm” that may include “piping assemblages, valves and pumps”. The 2013 EPA Inspectors Guidance document considers the loading / unloading *arm* as key, further stating that pipe-stands or flexible hoses typically do not comprise a loading / unloading rack.

The Rule requires that loading / unloading racks have sufficient SC to hold the largest tanker compartment anticipated to receive / deliver fuel at the facility. Unique to loading racks, the rule does not require the SC to contain incoming precipitation, thus minimizing the required capacity of the structure.

Unloading area [40CFR §112.7(c)]. The unloading area is typically where tankers unload oil / fuel to onsite tanks. The Rule clearly states that *general* (vs *sized*) SC requirements apply to these areas, saving facility owners considerable capital expense, provided said activity does not occur through the loading / unloading rack.

Mobile refuelers [40CFR §112.8(c)(11)]. The EPA amended 40CFR §112 to exempt non-transportation related mobile refuelers (tankers) from needing *sized* secondary containment. DOT regulated tankers typically need to address general (vs *sized*) SC, unless making transfers at loading / unloading racks.

Parked tankers [40CFR §112.8(c)(2)]. Considerable confusion exists around this topic, even amongst the EPA! A lengthy discussion with EPA authorities has shown the following to be the final ruling:

When an empty, partially-full or full tanker is parked overnight, it is considered to be a non-transportation mobile refueler that is subject only to *general* SC requirements and therefore not in need of *sized* SC. A best management practice can easily remedy (exceed) this requirement, by parking the tanker (after working hours) within the *sized* SC for a loading / unloading rack.

Empty portable tank storage [40CFR §112.8(c)(11)]. The EPA considers *empty* portable storage containers and tanks, dedicated *exclusively* for offsite customer use, exempt from *sized* SC. This rationale resulted from complaints by tank manufacturers whose *always empty* tanks were subject to the SPCC Rule’s *sized* containment requirements, simply because the “combined oil storage” criterion is based upon *capacity* and not actual storage. Seeing the parallel between the tank manufacturers’ situation and that of facility owners who stage empty tanks for delivery to offsite customers, the EPA seems willing to ignore these “always empty” tanks, as long as they’re properly accounted for in the SPCC Plan.

Tank integrity inspections [40CFR §112.8(c)(6)]. The Rule requires owners to perform tank integrity inspections “in accordance with industry standards”, such as the Steel Tank Institute’s SP001 Standard or the American Petroleum Institute’s API-653 Standard. The SP001 classification or category of a tank significantly impacts how and when the tank is inspected. For instance, a 5,000 gallon tank having adequate spill control and passive leak detection (Category 1) *only needs* informal employee-conducted monthly and annual inspections, yet if it lacks spill control and leak detection (Category 3), it may *also need* third-party formal (external and internal) inspections and leak tests every 5 to 10 years.

SP001 rewards facilities having Category 1 tanks, via considerably lower tank inspection costs!

The Rule recognizes SP001 and API-653 as time-tested tank inspection protocols. When a Plan attempts to replace recognized “best industry” standards with anything else, considerable expense can result, especially when being inspected by the EPA after a tank rupture. Plans have been incorrectly written to cite inspection standards such as UL-142, a tank *construction* (not inspection) standard, while some PEs invoke their own tank inspection protocol for riveted steel tanks, instead of using API-653. If your Plan has such tank inspection language, either change it to specify established inspection standards or confirm that the certifying PE has more liability insurance than you, as you might be on the hook for the difference when a major tank leak or rupture occurs!

Please consider the following *facts* regarding SP001 tank integrity inspections:

- ✚ Tanks with sufficient wall thickness, no microbially influenced corrosion, leaks, cracks, settlement or structural damage, could be certified by SP001 as “Suitable for Continued Service”, even when *lacking* adequate vents; the latter being regulated by national and local fire codes.
- ✚ The Steel Tank Institute does not recognize liners (coatings) as an acceptable method of tank-wall repair.
- ✚ Formal SP001 tank inspections must be performed by certified SP001 inspectors who must *personally* inspect each tank. There are no exceptions to this requirement, even when the inspector is also a PE.
- ✚ Only API-653 inspectors may inspect *riveted* tanks. Alternative inspection protocols must demonstrate equivalence to this long-established, time-proven standard.
- ✚ Oil-filled equipment that *uses* (vs stores) fluids is not subject to the bulk storage container requirements [40CFR §112.8(c)], including tank *integrity testing*.

Initial (baseline) tank integrity inspections [40CFR §112.8(c)(6)]. No specific criteria exist as to *when* initial or baseline inspections are performed on tanks regulated by the SPCC Rule. Some well-regarded, highly experienced SP001 inspectors believe that recently constructed tanks should have a baseline inspection, based upon encounters with significant deficiencies that were discovered in *new* tank systems. My SPCC Plans specify a more lenient inspection schedule, based upon the premise that new tanks should easily pass the NDT wall thickness criterion. Accordingly, Category 1 tanks are recommended for inspection 20 years from their date of manufacture, whereas Category 2 and 3 tanks are inspected sooner, in accordance with SP001 guidelines. This more lenient baseline inspection approach nonetheless assumes that the tank owner diligently adheres to the periodic inspection requirements stated in the SPCC Plan, where monthly checks for excess tank-bottom water and tank shell damage are conscientiously performed.

In closing ...

My experience with reputable petroleum marketers has been nothing short of delightful, as they genuinely care about environmental compliance, while simultaneously handling myriad operational issues. Two useful resources are the EPA’s Emergency Management Program (<http://www.epa.gov/emergencies/content/spcc/index.htm>) and the Steel Tank Institute (<http://www.steel tank.com>). Facility owners need to prepare Plans that are current with the latest regulatory changes, to avoid implementing (costly) ineffective and unnecessary compliance measures. Finally, your self-certifying employee or certifying PE must identify ethical, qualified tank inspectors who can *objectively* determine the best way to certify your storage tanks, so as to achieve environmental compliance in a cost-effective manner.



The 2014 Farm Bill

During February 2014, the House and Senate passed HR 3080, which become law that month. Farms are required to have SPCC Plans as follows:

Self-certified Plans – aggregate storage capacity between 6,000 to 20,000 gallons and with no single tank exceeding 10,000 gallons.

PE-certified Plans – aggregate storage capacity equal to or greater than 20,000 gallons or a single tank exceeding 10,000 gallons.