



Spill Prevention, Control & Countermeasure

AGC of America
THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA
Quality People. Quality Projects.



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If you have oil on your jobsite, or at your asphalt plant, be aware of the compliance requirements in the U.S. Environmental Protection Agency's (EPA) oil spill planning rule. The federal Spill Prevention Control and Countermeasure (SPCC) program may apply to the owner and operator of any construction site that has the *capacity* to store more than 1,320 gallons of *any type* of oil product in above ground storage tanks or containers.

This fact sheet is intended to help AGC members determine if they need a federally-required oil spill plan—and, if they do, develop one that meets the EPA requirements.

fact sheet

The Bottom Line

The SPCC rule applies in all 50 states and is administered and enforced by federal EPA in every state; however, states and localities also may have supplemental oil programs. This rule is in addition to any oil spill requirements required by your stormwater pollution prevention plan.

Right now, EPA's SPCC rule covers your jobsite if (1) your above ground oil storage containers (in tanks of 55 gallons* or greater, including asphalt cement tanks) have a total *capacity* of more than 1,320 gallons and (2) a spill could reach navigable waters of the United States or adjoining shorelines. It is important to note that EPA revised the definition of "navigable waters" of the United States, as the term applies to the SPCC rule, to comply with a court decision.

The rule requires all regulated jobsites to have a comprehensive SPCC plan detailing how the owner/contractor will store oil and both control and clean up any spills that may occur on the jobsite. Basic requirements call for appropriate secondary containment and/or diversionary structures, security measures, inspections and record keeping and employee training. EPA rules also impose certain reporting requirements.

Once you have an SPCC plan in place it is critical to conduct site inspections, personnel training and periodic review and renewal of the plan. Severe penalties have been assessed against companies who had SPCC plans in place but failed to conduct proper training and implementation of the plan. If an inspector determines that site personnel do not know how to respond to a spill, you could face penalties, regardless of whether there has been a spill incident.

Inspectors are looking for sheens on water, the ground, or pavement, oil storage containers without secondary containment or with improperly sized secondary containment, lack of alarm systems to notify personnel of spills, missing records and failure to train personnel.

AGC has been working with EPA for many years to provide the Agency with practical advice and counsel on how to streamline the oil spill rules to minimize the implementation problems common to construction sites. EPA finalized amendments to the SPCC rules in 2006 and 2008 that will ease the compliance burden on construction companies covered by the federal oil spill control regulations. *The amendments respond to many of AGC's main concerns as well as AGC's recommendations on how to improve the SPCC program.* EPA set a November 10, 2011, compliance deadline for regulated construction sites to prepare and implement SPCC plans that meet all of the current requirements.

*** All gallons referenced are U.S. gallons.**

Noteworthy rule revisions provide regulatory relief for “low-risk sites” that store smaller quantities of oil, including the ability to develop “self-certified” SPCC plans (in lieu of one certified by a professional engineer) and use EPA’s SPCC plan [template](#) to comply with the SPCC rule. In addition, EPA exempted hot-mix asphalt (HMA) and HMA containers from SPCC rule applicability in their December 2008 amendments, thereby excluding silos of HMA from the total oil storage capacity for any job site. Per AGC’s recommendations, this exemption is warranted because an HMA discharge would not “flow” to reach navigable waters or adjoining shorelines. *Storage of liquid asphalt cement, however, is still regulated under SPCC due to its potential to flow at elevated temperatures.*

Frequently Asked Questions

1. Does my construction site need to comply with the SPCC rule?

To determine if your jobsite must comply with the SPCC rule, you should add all the “oil” storage containers (tanks, drums, totes, etc.) that can hold 55 gallons or more, even if empty. If the total exceeds 1,320 gallons (*i.e.*, 1,321 gallons) and there is a “reasonable expectation” of a discharge into or upon navigable waters of the United States or adjoining shorelines, then you are required to comply with the SPCC regulations at your construction site.

The term “oil” means oil of any kind or in any form, including, but not limited to: waste oil; used oil, heating oil; petroleum; diesel fuel; kerosene; gasoline; lubricating oils; biodiesel blends; asphalt cement; sludge; oil refuse; oil mixed with wastes other than dredged spoil and other oils and greases, including synthetic oils and mineral oils.

EPA’s 2013 [SPCC Guidance for Regional Inspectors](#) lists factors to consider in determining whether there is a reasonable expectation of an oil discharge from a construction site to navigable waters of the United States or adjoining shorelines and if that site is subject to the SPCC rule. Such factors include whether on-site conduits, such as sewer lines, storm sewers and certain underground features (*e.g.*, power or cable lines or groundwater) could facilitate the transport of discharged oil off-site to navigable waters.

For example, a contractor has two 55-gallon drums of oil on his jobsite, a 500-gallon diesel tank, a 500-gallon gasoline tank, and an empty 500-gallon tank for storing used oil. Therefore, the total capacity is 1,610 gallons, which exceeds the 1,320-gallon threshold. In addition, the jobsite is near storm sewers so any oil spilled on the jobsite could reach navigable waters of the United States. So this construction site is regulated by the federal SPCC requirements.

The following containers *do not* count toward a site's oil storage capacity:

- Completely buried storage tanks subject to all the technical requirements of the underground storage tank regulations;
- Containers with an oil storage capacity of less than 55 gallons;
- Permanently closed containers;
- Hot-mix asphalt and hot-mix asphalt containers and
- Motive power containers— Any onboard, oil-storage container used primarily to supply fuel to power the movement of the vehicle (*e.g.*, gasoline or diesel) or to operate ancillary onboard apparatus (*e.g.*, hydraulic and lubrication oils). Examples of such containers include diesel and hydraulic fluid tanks on construction equipment (*e.g.*, tractors, forklifts, bulldozers, self-propelled cranes, self-propelled heavy vehicles).

2. What should I do if my jobsite is covered by the SPCC rule?

According to EPA's 2013 [*SPCC Guidance for Regional Inspectors*](#), if a construction site is regulated under the SPCC rule, it is the responsibility of the "facility" owner and operator to ensure that an SPCC plan is prepared. A site may have multiple owners and/or operators. Factors to consider in determining which owner or operator should prepare the plan include who has control over day-to-day operations of the facility or particular containers and equipment, who trains the employee(s) involved in oil handling activities, who will conduct the required inspections and tests and who will be responsible for responding to and cleaning up any discharge of oil. EPA expects that the owners and operators will cooperate to prepare one or more plans, as appropriate.

If you already have a plan, maintain it. If you do not have a plan, you must prepare and implement one. Many contractors will need to have their plan certified by a professional engineer (PE). Specifically, if your jobsite has storage capacity of more than 10,000 gallons, or has had an oil spill, you may need to prepare an SPCC plan certified by a PE. Also, if you decide to use certain alternate measures allowed by the SPCC rule, you may need a PE to certify that the alternative measures provide equivalent environmental protection.

However, many construction sites may be eligible to self-certify their SPCC plans. Specifically, if your site has a total oil storage capacity between 1,320 and 10,000 gallons in above ground containers and the jobsite has a good spill history as described in the SPCC rule (*see* question no. 3 below), you may prepare and self-certify your own plan.

If you are eligible to self-certify your plan, and no above ground container at your site is greater than 5,000 gallons in capacity, then you may use EPA's example SPCC plan template that is available to download from EPA's website at: <http://www.epa.gov/oem/content/spcc/tier1temp.htm>.

3. How do I know if I can self-certify my SPCC plan?

The SPCC rule—as amended in 2006 and 2008—now allows owners/operators of regulated construction sites that have above ground oil storage capacities of 10,000 gallons or less *and* that meet EPA's oil discharge history criteria to *self-certify* their SPCC plans in lieu of review and certification by a professional engineer (PE). Sites that qualify for this streamlined requirement are called "qualified facilities." The rule also provides qualified facilities with some flexibility in meeting security and tank integrity testing requirements by providing alternative "environmentally equivalent" measures that do not need PE review and approval. In addition, qualified facility owners/operators may prepare a "combo" SPCC plan that includes other deviations, but those portions of the plan (*i.e.*, environmentally equivalent measures or impracticability determinations) must be certified by a PE.

IF THE JOBSITE HAS...	AND	AND THE JOBSITE HAS...	THEN
10,000 gallons or less aggregate above ground oil storage capacity.	Within any 12-month period, 3 years prior to the plan certification date (or since becoming subject to the SPCC rule if in operation for less than 3 years) there has been: (1) No single discharge of oil to navigable waters or adjoining shorelines exceeding 1,000 gallons; and (2) No two discharges of oil to navigable waters or adjoining shorelines each exceeding 42 gallons.	No individual above ground oil containers greater than 5,000 gallons.	Tier I: Complete and self-certify plan template (Appendix G to 40 CFR Part 112) in lieu of a full PE-certified plan.
		Any individual above ground oil container greater than 5,000 gallons	Tier II: Prepare self-certified plan in accordance with all the applicable requirements of 40 CFR Part 112.7 and Subparts B and C of the rule, in lieu of a PE-certified plan.

4. What information will I need to prepare an SPCC plan for my construction jobsite?

Following is an example of the type of information you could include in your SPCC plan:

- A list of the oil containers at the jobsite (including their contents and location);
- A brief description of the procedures that you will use to prevent oil spills. For example, the steps that you use to prevent fuel spills when you transfer fuel from a storage tank to your construction equipment;
- A brief description of the measures you installed to prevent oil from reaching water;
- A brief description of the measures you will use to contain and cleanup an oil spill to water; and
- A list of emergency contacts and first responders.

5. What spill-prevention measures should I implement and include in my SPCC plan?

Following is an example of the type of spill-prevention measures you could include in your SPCC plan:

- Use containers suitable for the oil stored. Use a container designed for flammable liquids to store gasoline;
- Identify contractors or other local personnel who can help you clean up an oil spill;
- Provide overfill prevention for your oil storage containers;
- Provide effective, sized secondary containment for bulk storage containers, such as a dike or a remote impoundment;
- Provide effective, general secondary containment (40 CFR Part 112.7(c)) to address the most likely discharge where you transfer oil to and from containers and for mobile refuelers; and
- Periodically inspect and test pipes and containers.

6. How and when do I maintain my SPCC plan?

You must review your plan every five years to make sure it includes any changes in oil storage at your facility/jobsite. You also must amend and update your SPCC plan when changes are made to your facility/jobsite; for example, if you add new storage containers (*e.g.*, tanks) that are 55 gallons or larger.

7. What should I do if I have an oil spill? Are there reporting requirements?

If you have an oil spill, you should activate your SPCC plan procedures to prevent the oil spill from reaching a waterway. Immediately implement the spill cleanup and mitigation procedures outlined in your plan.

EPA rules also impose [certain reporting requirements](#)—

- Notify the National Response Center (NRC) at 800-424-8802 if you have an oil discharge to waters or adjoining shorelines.
- If the amount of oil spilled to water is more than 42 gallons on two different occasions within a 12-month period or more than 1,000 gallons to water in a single spill event, then notify your EPA Regional office in writing. The gallon amount(s) specified (either 42 or 1,000) refers to the amount of oil that actually reaches navigable waters of the United States or adjoining shorelines, not the total amount of oil spilled.

Resources on EPA's Website

SPCC Rule: <http://www.epa.gov/emergencies/content/spcc/index.htm>

Example SPCC Plan Template:

<http://www.epa.gov/emergencies/content/spcc/tier1temp.htm#ext1>

Secondary Containment Calculation Worksheets:

<http://www.epa.gov/emergencies/content/spcc/tier1temp.htm#sec>

SPCC Guidance for Regional Inspectors:

http://www.epa.gov/emergencies/content/spcc/spcc_guidance.htm

EPA's SPCC Plan Template

*By Jo Moore, Environmental Director for Ranger Construction Industries, Inc;
2010-2013 Member of AGC's Environmental Forum Steering Committee*

EPA has provided an "[SPCC plan template](#)" (*hereinafter* EPA's template) for use by so-called "Tier I facilities" (*e.g.*, a construction site that is regulated by the SPCC rule, that stores limited quantities of oil and has no history of oil spills—*see* below). Construction companies that are eligible to use EPA's template will find that it is the most simple and cost effective means of achieving compliance. A full-blown, PE-certified SPCC plan can cost from \$2,000.00 to \$4,000.00, depending on your geographical area and the complexity required. With the template, you will be able to establish a standard of practice that will be useful on most projects. Template users can then simply adjust the storage capacities, at risk waters and the required maps and drawings for each individual project. Construction companies that have storage yards with fuel tanks or shop facilities meeting the Tier I criteria will also be able to use EPA's template to develop SPCC plans for those facilities as well.

Can you use EPA's SPCC plan template on your jobsite?

If you are regulated by the SPCC rule, you may use [EPA's template](#), if your facility or jobsite meets the following criteria:

1. a total aboveground oil storage capacity of 10,000 gallons or less (count containers 55 gallons and up);
2. no aboveground oil storage containers with a capacity greater than 5,000 gallons; and
3. in the three (3) years prior to the date the SPCC plan is certified, had no single discharge of oil to navigable waters or adjoining shorelines exceeding 1,000 gallons, or no two discharges of oil to navigable waters or adjoining shorelines each exceeding 42 gallons within any 12-month period.

The basics of developing your plan using EPA's template

Go online to access [EPA's template](#) and complete sections I, II and III as directed by the instructions. Section A for onshore facilities (table G-10) will also apply. Include the appropriate attachments for maps, reviews, inspections, training logs, etc. You may choose to modify EPA's template to meet your own specific needs, *but note* that if you customize any of EPA's forms, you must provide a reference document that cross-references all appropriate sections of your form to the template and/or rule. If you have questions, EPA's [SPCC Guidance for Regional Inspectors](#) is a good document to use for additional information as to the meaning of specific sections and to review the EPA's opinion as to the meaning of various sections.

Some typical types of containers and oil found on construction sites would include bulk fuel tanks, maintenance oils, form oils, fuel tanks connected to pumps or generators and oil filled equipment such as transformers. SPCC will apply to a construction site until such time as the contractor has completed his work and/or removed the oil storage systems from the site. Remember to obtain information from any subcontractors who may bring containers to the site and assure that they understand the requirements of your SPCC plan. Changes to the plan must be made within six (6) months of the occurrence requiring the change.

After completing all appropriate sections of your SPCC plan, it must be signed and certified by a corporate officer, partner or business owner. Remember that certification statements carry "penalty of law" in that you can be charged (fines and / or jail time) if you make false statements. Be certain to conduct inspections and tests in accordance with your written procedures and keep your records for a period of three (3) years. Incorporating these records into your project records should provide sufficient protection for the record-keeping duration requirement since most contractors keep project records longer than three years.

The regulations require a formal five (5)-year review and recertification. Since some projects last less than five years, it would be wise to have each project plan certified and establish a recertification schedule for those projects lasting longer than five years.

The written plan must be kept at the facility (or site) if it is "manned" four (4) or more hours per day. If staffed less than four hours per day, then keep the plan at the closest field office.



Example Secondary Containment
Courtesy of Ranger Construction

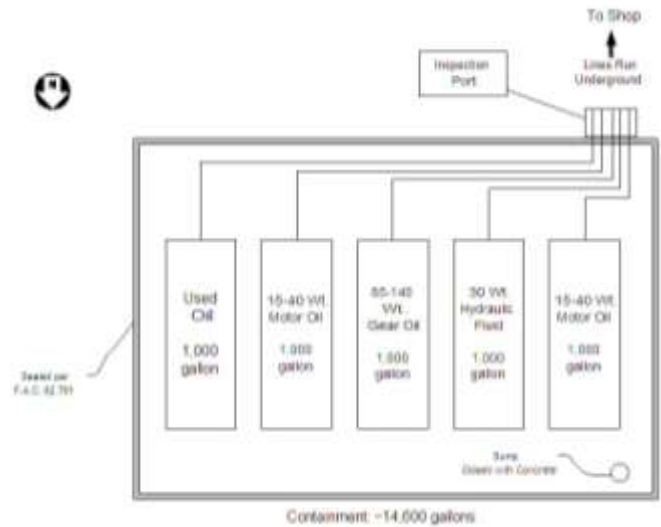


Example Spill Kit
Courtesy of Ranger Construction

A closer look at using EPA's template

The primary segments of EPA's template including the following:

1. List a reference number for the **oil storage containers**: unit, size and type of oil and above- or below-ground tank location.
2. Describe the **secondary containment** and/or diversionary equipment that will be utilized. Identify tanks and containers with a potential for oil discharge, how they may fail, direction of oil flow and potential quantity of discharge along with secondary containment method and containment capacity.
3. Describe **inspection procedures**, frequency, method of testing (if a specific industry standard is utilized) for tanks and piping at the site. Make a written report signed by the person conducting the inspection. If your site has a stormwater permit, you can combine the two inspections into one report. The only challenge for this is when using owner-required inspection forms, which could be handled by providing an attachment. In reality, inspection of oil storage areas is a normal part of a stormwater inspection, but most owner-provided forms do not reference this type of activity nor provide appropriate space for it.
4. Assure that personnel handling oil are **properly trained** and that **training records** are kept. This should be done annually. Include past discharges or incidents as a means of additional instruction and any recently developed precautionary measures that may have been added to the plan since the last briefing.
5. Describe **security measures** used to control access to oil storage and handling areas. Describe how you will prevent unauthorized access to starter controls on oil pumps, loading and unloading connections and to prevent acts of vandalism. Site lighting and fencing are components of security that should be included.
6. Discuss **emergency procedures** to be taken in the event of a spill as well as additional measures to be employed if a spill reaches navigable waters. Also discuss the appropriate notifications that are to be made and include a list or notification "tree" (calling priority) for the facility or site. Include the National Response Center (NRC) and any State Response Center in your notifications per state or local requirements.
7. Identify a list of response contractors that can be contacted in the event of a spill. They should have **24-hour contact numbers** and these should be easy for your site personnel to find. Site-specific personnel should also be listed with their 24-hour contact numbers. Some sites will



Example Oil Storage Containment
Courtesy of Ranger Construction

- have additional requirements for contacting owner personnel and their contact information should be listed here also. If 911 is not the emergency response number for the **fire department**, list it here as well. The name of the closest **hospital** and phone number also should be included. If there are other entities that may receive an immediate threat due to a release from your site (*e.g.*, gasoline spill near a day care center), you should include their information here and direct your staff to notify them as soon as possible after other appropriate notifications are made.
8. It is a good idea to develop a format for your staff to use in **reporting an incident**. The Tier I template identifies information that is to be provided to the NRC. Having a format to use will help assure appropriate communication reaches all necessary parties. On EPA's template, Section A is to be completed using Table G-10 and indicating if the element in the chart is included in your plan, or select "not applicable" or "N/A" to indicate that it is not.
 9. Track **five (5)-year review and recertification** (form provided in Attachment 1.1).
 10. Maintain a log of any **technical amendments** (provided in Attachment 1.2). The actual amendment should be placed in the proper section of the plan, with a reference to it placed here along with the date.
 11. When needed, use the **oil spill plan and contingency checklist** (provided in Attachment 2)—typically used in some circumstances where there is oil-filled equipment (such as a transformer or generator) at the site.
 12. Document inspections using an **inspection log**. Attachment 3.1 provides a log, or refer to a separate inspection form developed for use by your company in lieu of this form. Include date, general observations of the condition of equipment (tanks, piping, hoses and containment, etc.), any minor spills that are located and cleaned up and the signature of the inspector.
 13. Use the **bulk container inspection log** (provided in Attachment 3.2) for information on elements to be included in an inspection of bulk containers. This information can be combined with other SPCC inspection logs to create a general inspection log on one form.
 14. Use a **dike drainage log** (provided in Attachment 3.3) for recordkeeping of the times stormwater is removed from the secondary containment, condition of the water and signature of the inspector who supervised the drainage. Also record that any drains have been closed and locked. This information may also be included in a general inspection log on one form.

A Ranger directive – "Do the right thing." – weaves compliance into the culture of the company. The cost of clean-up of a small spill of 25 gallons can start at \$5,000.00 by the time you use a response company and complete the documentation required to prove the removal of contamination. It is much more cost effective and environmentally responsible to prevent spills than to deal with a cleanup. An SPCC plan will help you prevent spills as well as plan what to do in advance so you can respond quickly and effectively to minimize both damage and cost should a spill occur.



Example Required USGS
 Quadrangle Map with Subject Site
 Indicated (top) and Example
 Facility Site Map (bottom)
 Courtesy of Ranger Construction

15. Use an **oil handling personnel training and briefing log** (provided in Attachment 3.4) to keep track of training conducted. For some companies, this form would not provide enough space to describe the training provided and the number of attendees with signatures. You may refer to other documents in this log.
16. Complete a **discharge notification form** when applicable. Attachment 4 provides the information required to be given to the NRC in the event of a discharge. It would be helpful to already have this information filled out prior to making the phone call. Also record the time and date of the call as well as the name of the person spoken to (who received the call). Additional forms may be required by other agencies.
17. You will need a general area **map** (USGS), a site specific map or drawing (**site plan**) indicating where oil storage and handling activities take place and perhaps a detail of any containment areas that may be constructed on site. Indicate the location of water bodies and the path that a spill may be expected to take along with the locations of any prevention or diversion devices that have been installed.

Spill prevention tips for contractors

- When possible, do not store tanks or other oil sources near water bodies, storm drains, ditches or channels that can carry oil to a water body.
- Evaluate the potential for run-in damage and take precautions to prevent this from occurring.
- Maintain supplies of cleanup materials (absorbents, etc.) close to areas where fuel transfers take place.
- Assure that all personnel who transfer fluids follow procedures, use drip pans under connection points and possibly also use tarps to prevent drips from oil changes or other equipment maintenance activities from contacting the soil.

- General housekeeping and maintenance should apply to fuel tanks as well. Keep tanks in good condition by preventing corrosion, and inspect hoses and nozzles for cracks and leaking gaskets.
- Secondary containment that has a drain(s) must be kept “normally closed” and preferably locked. Do not let anyone remove a drain plug and walk away from the tank as it is too easy to forget to replace it. Collected stormwater must be free of sheen prior to discharge from secondary containment.
- Double wall tanks are preferable to using secondary containment on sites as they alleviate the need for dealing with collected stormwater removal. Manufacturers are making more of these now than in the past (250 – 1,000 gallon size).
- Inspections should include some daily awareness for those accessing fueling/oil storage areas on a regular basis. A written weekly inspection should be conducted in those areas most likely to receive spills/contamination. On a monthly basis, take a closer look at hoses, connections, spill prevention structures, etc. to assure all equipment is in good working order. Include an evaluation of the spill kits to assure adequate supplies are on hand. Mobile service units should also carry spill cleanup supplies sufficient to deal with a discharge from their unit.
- If inspections are not performed by someone with the supervisory authority to direct corrective action, then they should at least be reviewed and secondarily signed by such a person.
- Training necessary for SPCC compliance can be incorporated into the regular tool box safety meetings, if your company conducts them. If not, then you must assure that those handling oil receive separate adequate training.



Jo Moore has more than 30 years of construction experience and is the Environmental Director for Ranger Construction Industries, Inc. Ranger is a heavy and highway contractor and asphalt paving materials producer with operations throughout central and south Florida. Jo developed and implemented Ranger’s environmental compliance and training program. Jo is a Florida Department of Environmental Protection (FDEP) Qualified Stormwater Inspector as well as being a Qualified Instructor for FDEP’s Inspector Training Program. She regularly presents at the local AGC Chapter as well as at various professional and industry associations.

Contractor Case Study

*By Chris Ennes, Western Region Environmental Manager for Ames Construction, Inc;
2010-2013 Member of AGC's Environmental Forum Steering Committee*

It is a late weeknight evening and my cell phone rings. A project superintendent alerts me that a portable aboveground storage tank (AST) has been mobilized on one of Ames' construction sites. He wants to know the best spot to stage the tank and then asks if it is okay to put fuel into it. Over time, one learns as an environmental manager of a construction firm how to field an impromptu call like this.

If you use, consume, store, transfer or otherwise handle oils at your construction site, you need to take the appropriate actions to prevent, control and contain spills. My advice to the project superintendent: Do not put product into the AST until you have registered it, secured the local operating permit(s) (generally an inspection is required) and developed a federally-required SPCC plan, if applicable. Locate the AST in your construction yard as far away as possible from drainage ways.

In fact, my first reaction to this sort of question is not to focus on whether or not we need to develop an SPCC plan to meet EPA's "Oil Pollution Prevention Regulations" under the Clean Water Act for storing oil on a jobsite. But rather, I first want to determine the local jurisdiction covering the jobsite. Many states and/or localities require registration and permitting of all ASTs that contain oil—on top of federal SPCC requirements.

Securing the state/local permit(s) and developing the site SPCC plan can generally be done concurrently if you have an understanding with the permitting agency (*e.g.*, state environment department and fire marshal office) that a copy of the final SPCC plan will be submitted to them for their files and safety/emergency planning purposes.

As for the SPCC plan, the development can be fairly straightforward. A good starting point is to assess the site-specific variables and determine whether or not you meet the eligibility criteria to use EPA's example SPCC plan template (*hereinafter* EPA's template) and/or to self-certify your plan without assistance from a professional engineer. As a general rule, if the aggregate aboveground capacity to store oil at your construction site (counting only containers greater than or equal to 55 gallons) is greater than 10,000 gallons then you *may not* use EPA's template or self-certify your own SPCC plan. Instead, you will have to develop your own full-blown plan and retain a professional engineer to *at least* certify the plan. Speaking from experience, it is best to engage the engineer early to streamline the plan development, with an end goal of being able to fill the aboveground tanks with product as soon as possible.

This case study demonstrates how Ames meets the SPCC compliance requirements.

In advance of the November 10, 2011, compliance deadline, and in the spirit of environmental stewardship, Ames developed and continually refines its own company-specific templates (*hereinafter* Ames' template) in accordance with the requirements outlined in the statute (*see*, [40 CFR Part 112](#)). Because most if not all of Ames' jobsites utilize a single AST tank larger than 5,000 gallons, we are not permitted to use EPA's template for a so-called "Tier I qualified facility" (*see* sidebar on this page; *see also* previous section which discusses when and how construction sites owners/operators may use EPA's template).

In this case study, the subject AST is a single portable steel skid mounted dual-walled 6,000-gallon on-highway, low-sulfur *diesel* fuel tank. Besides some miscellaneous boxes of oil quarts, the superintendent assures me that no other petroleum product tanks will be staged with the subject AST as the project will utilize mobile oilers based from our regional maintenance shop. With this information, I determined that this SPCC plan will most likely fall under the "Tier II qualified facility" category requirements. Under Tier II, the facility owner/operator can prepare and self-certify an SPCC plan for the jobsite, so long as the jobsite/facility meets the eligibility requirements pursuant to the statute (*see* 40 CFR Part 112.6(a)(1-8) or review the list of eligibility requirements at the end of this case study). Primarily, the facility must have an aggregate aboveground storage capacity of 10,000 gallons or less and a "good" spill history (*i.e.*, has had no discharges exceeding 1,000 gallons or no two discharges each exceeding 42 gallons within any 12-month period in the three years prior to the plan's self-certification date).

I determine that the jobsite meets the eligibility requirements and therefore is regulated as a "Tier II qualified facility." Ames' template has a dedicated section that outlines the 40 CFR Part 112.6(a) (1-8) eligibility requirements, complete with a signature

Tier I versus Tier II

A **Tier II qualified facility** has an aggregate aboveground oil storage capacity of 10,000 gallons or less and meets the oil discharge history criteria in 40 CFR Part 112.3(g)(2). To qualify as a **Tier I qualified facility**, in addition to meeting the eligibility criteria for a Tier II qualified facility, a facility must have no individual aboveground oil storage containers with a capacity greater than 5,000 gallons (40 CFR Part 112.3(g)(1)).

The owner or operator of either a **Tier I or Tier II qualified facility** may self-certify the facility's SPCC plan, as provided in 40 CFR Part 112.6.

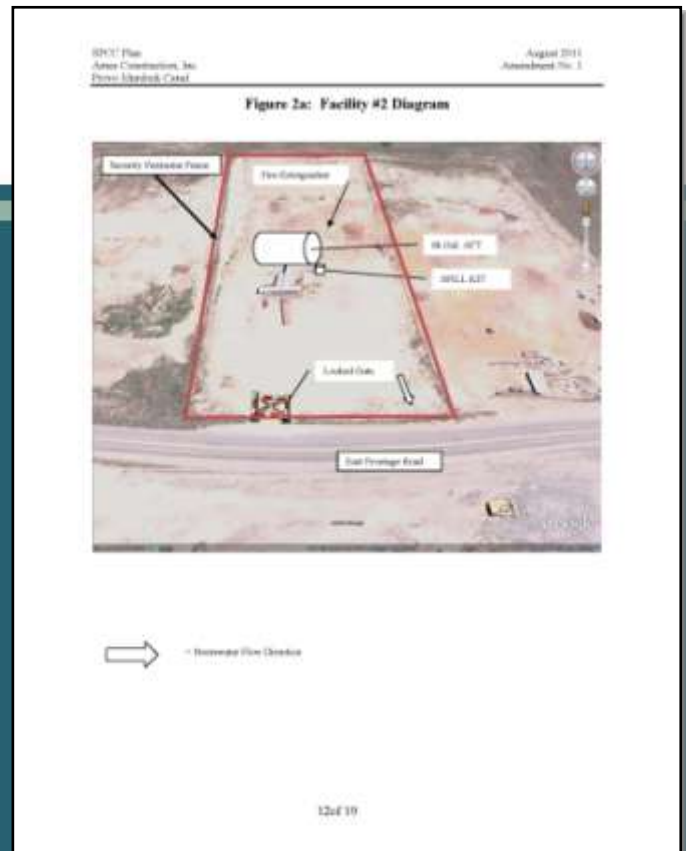
The owner or operator of a **Tier I qualified facility** also may complete and implement EPA's streamlined, self-certified SPCC plan template at 40 CFR Part 112, Appendix G. **The streamlined requirements are related to provisions on** failure analysis, bulk storage secondary containment, and overfill prevention (40 CFR Part 112.6(a)(3)).

block at the bottom of the page. The owner/operator representative must actually sign this section of the plan in order to truly “certify” compliance. Also, the site owner/operator must self-certify any “technical amendments” pursuant to 40 CFR Part 112.6(b) in this fashion.

Meanwhile, I have located the proper local permitting authority and have secured an AST permit. I explain to the fire marshal that in the next week or so I will submit to his office a completed SPCC plan. During the inspection he points out that there were some dry weeds too close to the facility and that the fire extinguisher that was rigged onto the AST should actually be staged away from the tank for access in case of an actual fire emergency. Ames responds by clearing the weeds to form a reasonable buffer (approximately 50 feet) and mounting the fire extinguisher on a post about 30 feet from the tank. In general, my recommendation is to make sure combustibles are not stored within 50 feet of the tank. The fire marshal liked the idea of placing precast portable concrete barrier rail for attenuating potential crash impact and this practice is part of our security component.

Before I start to write the SPCC plan narrative, I visit the site to get the facility diagram and layout maps correct and to make sure that the tank was set up in the best possible spot to minimize or even avoid the potential for a discharge (*i.e.*, spill) into a “waters of the United States” during filling/dispensing activities. I also take several photos for desk reference. The plan itself must have a general location map and a more detailed diagram or layout of the jobsite.

6,000 Gallon Diesel AST – Precast Portable Concrete Barrier Rail for Attenuating Potential Crash Impact (left) and Example Facility Site Diagram (right)
Courtesy of Ames Construction



The next step is to designate a response action team. For this project, I select the project superintendent as the facility manager and as an alternate I choose a key foreman. These folks are inserted into the call-down sheet comprising the key personnel that I will instruct on the contents of the plan and who in turn will train their field staff, mechanics, etc. These steps are necessary to satisfy the training component of the SPCC plan. Probably the biggest challenge for Ames has been getting this training done and then formally documenting it into an appendix of the SPCC plan. The SPCC plan also should list at least one local spill response clean up company for that potential catastrophic release. A prearranged contract with them is very beneficial.

The narrative section of the SPCC plan for this site includes extensive spill prevention mitigation best practices as well as instructions on what to do when there is a significant spill. Spill reporting protocol is outlined in the plan; however, only upper management handles regulatory reporting (*i.e.*, typically performed by an environmental manager, such as myself). The facility manager must fill out an incident report (attachment to the SPCC plan) which serves as the basis for our reporting. Be sure to have a spill kit handy and proper labeling in place (*see* sidebar and photo on this page).



Spill kits

Here is Ames' spill kit rule of thumb:

- For oil storage greater than or equal to 10,000 gallons, we use 1-2 drums to hold the following materials: 4 bags (25-pound) of sorbent clay material (*e.g.*, "kitty litter"), 36 gray/white pads, 24 gray/white socks, 9 gray/white pillows, 12 gray/white booms (or more if near a watercourse), approximately 6 garbage bags, rubber gloves and shovels.
- For oil storage less than 10,000 gallons, material supplies can be reduced by 50 percent.
- For all spill kits, include MSDS(s) (material safety data sheet) for the product(s) in a sealed bag.

Labeling

Ideally all sides of the AST should be labeled with the following:

- Product ID;
- Gallons/capacity;
- Applicable placards; and
- "No Smoking" signs (generally applies to most oil-based products).

Image this page: 6,000 Gallon Diesel AST;
Spill Kit, Sample Labeling
Courtesy of Ames Construction

The subject AST is a dual-walled tank system therefore secondary containment is not necessary. However, the most cost-effective successful pollution mitigation measure that Ames has instituted is placing a piece of liner material (HDPE, 45-mil) partially under the AST. Extend the liner away from the tank dispenser platform to cover a footprint big enough for service/fuel trucks. The area is excavated down a couple feet and sharp rocks are removed. The liner is layered between imported finer textured sand material (alleviates liner puncture) and then capped with the dirt that was initially excavated. Sometimes the liner is turned up at the surface interface to form a small berm around the perimeter to capture any potential spill or small drips that may occur during the dispensing of the AST. The liner essentially alleviates the potential for groundwater contamination.

Periodically, accumulated stains (less than 5-gallon volume) are scooped up. Generally, all media resulting from cleanup of non-reportable quantities of petroleum products are placed in a 55-gallon drum and appropriately secured. Once the drum is filled, a composite sample is collected to characterize the waste and evaluate disposal options, which may include treatment prior to disposal or direct deposit in our dumpster, upon approval from the local landfill. Also keep in mind that any accumulated stormwater in this lined area must be periodically pumped. We check for presence of an oil sheen prior to pumping. If no sheen is present, it is safe to upland infiltrate adjacent to the AST. If there is a sheen, we call an oiler to suck up the contaminated water for disposal/recycling. Generally, if you secure an oil absorbent boom (some come with carabiners) in the corner of your sump, then most if not all of the oil product is absorbed. It is obvious when it is time to replace the boom because the dominant color shifts from white (new out of the package) to dark brown. You can dispose of the used boom in a dumpster as long as no free product is present. Remember to document containment area drainage events with the SPCC plan.



6,000 Gallon Diesel AST – Custom Fabricated Dispenser Nozzle Holder
Courtesy of Ames Construction

Another more recently developed best management practice is the fabrication of a custom steel dispenser nozzle box holder (*see photo*). Before this custom box was made, the nozzle would leak onto the platform and potentially onto the surrounding land surface (note the “oil-dri” absorbent clay on the platform). Once the steel box is approximately 50 percent full (identified during a periodic inspection), an oiler will drain the fuel through a valve installed at the bottom. You can also rig up a quick inexpensive drip pan made from a 5-gallon bucket/lid or there are, of course, plenty of manufactured drip pans on the market.

You also must describe in your plan how you secure and control access to the oil that is being stored on the jobsite. This subject AST was in part selected due to the perimeter fence (see photo below) which is locked at the end of every shift.

Lastly, the SPCC plan must include the periodic inspection protocol including any applicable forms that are utilized. Ames uses the Steel Tank Institute's (STI) Standard for the Inspection of Aboveground Storage Tanks SP001. STI released their 5th edition in September 2011. It costs \$165.00 and cannot be distributed outside your organization. If you are an environmental manager, like me, who has to know a little bit about everything, this document may be overwhelming at first. Only Sections 5 and 6 are the most applicable to your SPCC plans, so you can let the certified tank inspectors worry about becoming an expert on the rest of the standard. In the subject AST example, the tank is classified as a Category 1 Portable and therefore no integrity testing (formal external inspection by a certified inspector) of the tank is required. However, you must perform a periodic AST inspection as defined in Section 6 of the SP001 standard.

I encourage you to spend the time upfront and develop a template plan for your company (Tier II facilities) and familiarize yourself with EPA's template (Tier I facilities). You will still have to fill out forms for each site that must comply with the SPCC requirements, but these templates will save you time and expense in the long run.



6,000 Gallon Diesel AST – Security Perimeter Fence –
Gate Is Closed and Locked at the End of Every Shift
Courtesy of Ames Construction

Tier II qualified facility eligibility requirements

1. Familiarity with 40 CFR Part 112.6(a);
2. Preparer has visited and examined the facility;
3. SPCC plan was prepared in accordance with accepted and sound industry practices and standards;
4. Procedures for required inspections and testing have been established;
5. SPCC plan is being fully implemented;
6. Facility meets the qualification criteria set forth under 40 CFR Part 112.3(g):
 - a. Has an aggregate aboveground storage capacity of 10,000 gallons or less; and
 - b. Has had no single discharge as described in 40 CFR Part 112.1(b) exceeding 1,000 gallons or no two discharges as described in 40 CFR Part 112.1(b) each exceeding 42 gallons within any 12 month period in the 3 years prior to the SPCC plan self-certification date, or since becoming subject to this part if the facility has been in operation for less than 3 years (other than discharges as described in 40 CFR Part 112.1(b) that are the result of natural disasters, acts of war, or terrorism);
7. SPCC plan does not deviate from any requirement of this part as allowed by 40 CFR Part 112.7(a)(2) and Part 112.7(d), except as provided in paragraph (c) of this section; and
8. SPCC plan and individual(s) responsible for implementing the plan have the full approval of management and the facility owner or operator has committed the necessary resources to fully implement the plan.



Chris Ennes is the Western Region Environmental Manager for Ames Construction, Inc. Ames is a full-service heavy civil and industrial general contractor established in 1963. While maintaining corporate offices in Minnesota, Ames Construction services many areas of the country from regional offices in several Western and Midwestern states. Chris has worked for Ames primarily focusing on oversight of their

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Oil Spill Prevention, Clean-up and Reporting: What Federal EPA Requires



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During this informative, 90-minute webinar, EPA's SPCC Technical Team Leader will give you the exact information you need on federal Spill Prevention Control & Countermeasure (SPCC) program requirements. This program applies in all 50 states and regulates any jobsite that has the capacity to store more than 1,320 gallons of oil. Since EPA's Nov. 2011 compliance deadline, ALL "regulated" jobsites must have a compliant SPCC Plan in place before starting work. Don't miss this opportunity to get your real-world SPCC issues addressed by EPA's SPCC leader. Learn need-to-know strategies to keep your construction jobsite compliant.

- Easy to understand explanation of EPA's rules (straight out of EPA's mouth)
- Specific answer to exactly what "oil" substances are regulated (asphalt cement is on the list!)
- What EPA is looking for when it does a site inspection (see real-life pictures of common violations)
- Clear guidelines for developing your site's SPCC Plan (template are available for low-risk sites)
- Secondary containment requirements you need to know now

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Check out the AGC webinar recording on AGC's e-Store online at www.agc.org/estore.

About this SPCC fact sheet

AGC derived this fact sheet from a series of articles that ran in *AGC's Environmental Observer* newsletter prior to the SPCC compliance deadline in November 2011.

This fact sheet should not be construed as legal advice or legal opinion on any specific facts or circumstances. The contents are intended for general information purposes only, and you are urged to consult your own lawyer on any specific legal questions you may have concerning your situation.

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