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Report to Congressional Requesters

April 2008

ABOVEGROUND OIL STORAGE TANKS

More Complete Facility Data Could Improve Implementation of EPA's Spill Prevention Program

GAO-08-482

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Highlights

Highlights of GAO-08-482, a report to congressional requesters

Why GAO Did This Study

Oil leaks from aboveground tanks have contaminated soil and water, threatening human health and wildlife. To prevent damage from oil spills, the Environmental Protection Agency (EPA) issued the Spill Prevention, Control, and Countermeasure (SPCC) rule in 1973. EPA's 10 regions inspect oil storage facilities to ensure compliance with the rule. EPA estimates that about 571,000 facilities are subject to this rule. Some states also regulate oil storage tanks.

GAO determined (1) how EPA regions implement the SPCC program, (2) the data EPA has to implement and evaluate the program, and (3) whether some states' tank programs suggest ways for EPA to improve its program. GAO surveyed all 10 EPA regions and interviewed officials in EPA and six states selected on the basis of experts' recommendations, among other criteria.

What GAO Recommends

GAO recommends that EPA (1) analyze options for obtaining data on SPCC-regulated facilities, including a tank registration program; (2) develop guidance for EPA regions on how to better coordinate with states on SPCC issues; and (3) finish developing performance measures and obtain data to evaluate SPCC program effectiveness. In commenting on a draft of this report, EPA generally agreed with GAO's recommendations and provided a number of technical comments that have been incorporated into the report, as appropriate.

To view the full product, including the scope and methodology, click on GAO-08-482. For more information, contact John B Stephenson at (202) 512-3841 or stephensonj@gao.gov.

What GAO Found

EPA allows regional offices flexibility to implement the SPCC program according to their individual circumstances. These differences account, at least in part, for regional variations in the number of SPCC inspections. According to GAO's survey, during fiscal years 2004 through 2006, EPA regions conducted 3,359 SPCC inspections—less than 1 percent of EPA's estimate of SPCC facilities—ranging from 184 in Region 10 to 745 in Region 6. Furthermore, because of regional differences in the number of inspections and the enforcement mechanisms used, the number of SPCC enforcement actions also varied. While EPA allows regional flexibility, it has begun implementing SPCC policies and procedures to promote consistency in how the SPCC regulations are interpreted and enforced.

EPA has information on only a portion of the facilities subject to the SPCC rule, hindering its ability to identify and effectively target facilities for inspection and enforcement, and to evaluate whether the program is achieving its goals. Because facilities subject to the SPCC rule do not have to report to EPA, the agency can only estimate the universe of SPCC-regulated facilities and must try to identify them through such means as oil spill data, state referrals, and Internet searches. Through inspections, EPA determines if the facility is subject to the rule. While inspections of known SPCC facilities are generally risk-based, the risk assessments exclude the large number of estimated SPCC facilities that have not yet been identified and that may pose more serious threats than those currently targeted for inspection. EPA is developing a national database to promote standard data collection across regions and expand the facility information available to regional managers. However, this database is limited to previously inspected facilities and will not enable EPA to identify SPCC facilities beyond those already known. Ultimately, incomplete information on which facilities are subject to the SPCC rule, and where and how often leaks may occur, prevents EPA from effectively targeting inspections to facilities that potentially pose the highest risks. Furthermore, EPA does not have performance measures to examine the program's effectiveness. EPA is developing additional measures, but without more complete data on the SPCC-regulated universe, these measures cannot gauge the program's accomplishments.

The tank inspection programs of Florida, Minnesota, Missouri, New Jersey, New Mexico, and Virginia can provide EPA with insight on potential improvements to the SPCC program. For example, five of the six states use tank registration and reporting systems to collect data on oil storage facilities, giving them information on the universe of facilities subject to state regulations. These states can therefore inspect all their facilities or target those they believe present the highest risks of spills. By taking a similar approach, EPA would have more complete data for setting inspection priorities based on risk. Furthermore, because these states have detailed knowledge of their facilities, EPA could benefit from increased coordination with them, when, for example, it identifies facilities and targets inspections.

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Abbreviations

ASTSWMO	Association of State and Territorial Solid Waste Management Officials
EPA	Environmental Protection Agency
ESA	Expedited Settlement Agreement
FRP	Facility Response Plan
GIS	geographic information system
GPRA	Government Performance and Results Act
ICIS	Integrated Compliance Information System
NRC	National Response Center
OECA	Office of Enforcement and Compliance Assurance
OEM	Office of Emergency Management
OMB	Office of Management and Budget
OSCARS	On-Scene Coordinators Area Response System
SPCC	Spill Prevention, Control, and Countermeasure

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United States Government Accountability Office
Washington, DC 20548

April 30, 2008

The Honorable Barbara Boxer
Chairman, Committee on Environment
and Public Works
United States Senate

The Honorable Arlen Specter
United States Senate

Industrial and other facilities store billions of gallons of oil—from petroleum products to vegetable-based cooking oils—in aboveground storage tanks at various locations throughout the United States. These tanks have sometimes leaked oil that may migrate into soil, nearby waterways, and groundwater, potentially threatening human health, wildlife, and the environment. To prevent certain oil spills, the Environmental Protection Agency (EPA), under the authority of the Clean Water Act, issued the Spill Prevention, Control, and Countermeasure (SPCC) rule in 1973. The SPCC rule, as amended, requires each owner or operator of a regulated facility to prepare and implement a plan that describes how the facility is designed, operated, and maintained to prevent oil discharges into or upon U.S. navigable waters and adjoining shorelines. The plan must also include measures to control, contain, clean up, and mitigate the effects of these discharges.

EPA estimated that in 2005, about 571,000 facilities in a variety of industry sectors, such as oil and gas production, petroleum bulk storage, farming, electric utilities, and manufacturing, are regulated under the SPCC rule. Facilities are subject to the rule if they (1) are non-transportation-related, (2) have a total oil storage capacity of greater than 1,320 gallons in aboveground oil storage containers or a total oil storage capacity greater than 42,000 gallons in completely buried storage tanks, and (3) could reasonably be expected, due to their location, to discharge harmful quantities of oil into or upon U.S. navigable waters or adjoining

shorelines.[1] According to EPA, while some underground storage tanks are regulated under the SPCC rule, the majority of the regulated facilities consist of aboveground tanks.[2]

In 1974, EPA initiated the SPCC program to administer the rule. EPA directly administers the SPCC program, in contrast to some other EPA programs, which the agency authorizes the states to implement. The Clean Water Act does not provide EPA with the authority to authorize states to implement the program in its place. To ensure that facility owners and operators are meeting SPCC requirements, EPA regional personnel inspect regulated facilities to determine their compliance with regulations. EPA's Office of Emergency Management (OEM) and Office of Enforcement and Compliance Assurance (OECA) support the regions by developing and amending SPCC regulations and compliance assistance materials, providing general guidance on how to conduct inspections and enforcement actions, facilitating communication and coordination among regions, and conducting research on the incidence of oil spills, cleanups, and environmental harm. OEM and OECA provide general guidance to regional offices on how to implement the SPCC program, and regional offices decide which facilities to inspect and when and how to proceed with administrative or civil judicial enforcement actions consistent with national guidance.

In 1989, we reported that certain areas of the SPCC program lacked either the necessary data or procedures to ensure consistent and effective program implementation and recommended ways to strengthen the program.[3] Among other actions, we recommended that EPA (1) develop an inventory of aboveground oil storage facilities because it had little information on facilities that might be regulated by the SPCC rule and (2)

[1]For purposes of the SPCC rule, non-transportation-related facilities include, among others, such facilities as fixed or mobile onshore and offshore oil drilling and production facilities; oil refining and storage facilities; industrial, commercial, agricultural, and public facilities that use and store oil; waste treatment facilities; loading racks, transfer hoses, loading arms, and other equipment used to transfer oil in bulk to or from highway vehicles or railroad cars; and highway vehicles, railroad cars, and pipelines used to transport oil within confines of a non-transportation-related facility. 40 C.F.R. pt. 112, app. A.

[2]While EPA refers to oil storage "containers" in the SPCC rule, with "tanks" as a subset of those containers, in this report we refer to those storage units described in the SPCC rule by the more commonly used term "tanks."

[3]GAO, *Inland Oil Spills: Stronger Regulation and Enforcement Needed to Avoid Future Incidents*, GAO/RCED-89-65 (Washington, D.C.: Feb. 22, 1989).

provide uniform instructions to its regions for conducting and documenting inspections at SPCC facilities. In 1995, we reported that EPA had taken steps to address these recommendations but had not fully implemented them.[4]

While EPA is solely responsible for ensuring that facilities comply with SPCC regulations, a number of states have established their own parallel regulations and programs whose goal—preventing leaks from aboveground oil storage tanks—is similar to that of the SPCC program. These programs may differ from EPA's program in type and extent of regulations and in their implementation. For example, while EPA's program regulates those facilities that could discharge quantities of oil into or upon U.S. navigable waters and adjoining shorelines, some states regulate facilities that have the potential to spill oil into groundwater and surface waters. In addition, some states do not have separate, formal spill prevention programs, but may inspect aboveground storage tanks as part of other regulations, such as state fire prevention codes. Because states differ in their approaches to regulating aboveground storage tanks, in some states, both EPA and the state may inspect some facilities, while in other states, EPA may be the sole regulatory agency inspecting oil storage facilities.

To hold federal agencies systematically accountable for achieving results from their programs, such as EPA's SPCC Program, the Congress passed the Government Performance and Results Act (GPRA) of 1993. The act requires EPA and other federal agencies to develop strategic plans covering at least 5 years and submit them to the Congress and the Director of the Office of Management and Budget (OMB). In addition, GPRA requires agencies to prepare annual performance plans that establish goals for the upcoming fiscal year that are aligned with the agencies' long-term strategic goals that are described in their strategic plans. These annual performance plans must include results-oriented annual goals that are linked to program activities and indicators that the agency will use to measure performance against these goals.

In this context, you asked us to review EPA's SPCC program. Specifically, we (1) determined how EPA regions implement the SPCC program, especially inspection and enforcement activities, (2) identified the data

[4]GAO, *Aboveground Oil Storage Tanks: Status of EPA's Efforts to Improve Regulation and Inspections*, GAO/RCED-95-180 (Washington, D.C.: July 18, 1995).

EPA has available to implement and evaluate the SPCC program, and (3) examined the extent to which tank programs in selected states offer examples of ways that EPA might improve its implementation of the SPCC program.

To review EPA regions' practices in implementing the SPCC program, we surveyed all 10 EPA regions to determine, among other things, how they identify facilities to inspect, the number of inspections each region has conducted in recent years, how many SPCC inspectors have received training, and the number of those inspected facilities that complied with SPCC regulations and, for those that did not comply, the number of enforcement actions taken. We also discussed the regions' responses to our survey in detail with regional officials. To determine what SPCC data EPA officials have available, we spoke with EPA officials to identify the agency's data sources for enforcing SPCC regulations, determine how the agency uses the data, and determine the data's overall limitations. Finally, we interviewed officials from aboveground oil storage tank programs in six states—Florida, Minnesota, Missouri, New Jersey, New Mexico, and Virginia—to understand the nature of their programs and how they are implemented, to identify practices that might be applied to EPA's program, and to learn about any coordination between these states' programs and EPA's SPCC program. We selected these six states because they (1) had aboveground storage tank programs, (2) were recommended by trade associations and other officials as states that had well-run storage tank programs, and (3) represented a cross section of geographical areas and EPA regions. Appendix I provides a more detailed explanation of our scope and methodology. We conducted this performance audit between August 2007 and April 2008 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Results in Brief

EPA allows its regional offices flexibility in how they implement the SPCC program to fit their needs and address their unique challenges. EPA regional offices often have different numbers and types of regulated facilities and staffing arrangements, and face different geographic challenges in implementing the SPCC program. As a result, the regions have varied in their use of staff for inspections, the number of facilities inspected, and penalty assessments, although their budget allocations for SPCC activities have been similar in recent years. For example, Region 2—

responsible for New Jersey, New York, and Puerto Rico—uses only dedicated EPA SPCC program staff to inspect facilities subject to the SPCC rule. In contrast, Region 6—responsible for Arkansas, Louisiana, New Mexico, Oklahoma, and Texas—which is considered to have a large portion of the nation's oil business, uses several contractors as well as regional staff to help inspect facilities in that region subject to the SPCC rule. Partly because of these regional differences, the number of facilities inspected and the level of enforcement actions taken have varied across regional offices in recent years. According to our survey, EPA regions inspected a total of 3,359 SPCC facilities from fiscal year 2004 through fiscal year 2006, representing less than 1 percent of EPA's estimated total number of SPCC facilities nationwide. The number of facilities inspected during that 3-year period ranged from a low of 184 inspected in Region 10—responsible for Alaska, Idaho, Oregon, and Washington state—to a high of 745 inspected in Region 6. Similarly, the percentage of inspected facilities against which regions took enforcement actions varied. Furthermore, in enforcing the SPCC rule, regions are allowed to determine if, and when, they will use expedited settlement agreements, an enforcement action designed, according to EPA, to gain facility compliance more quickly than traditional approaches. While still allowing flexibility, EPA has begun implementing nationwide policies and procedures to promote more consistency in how the SPCC regulations are interpreted and enforced. For example, in 2005, EPA issued guidance to assist regional inspectors in understanding the SPCC rules and their roles when inspecting facilities. According to officials we interviewed, the regions are using this guidance to ensure that inspectors conduct complete inspections.

EPA has information on only a portion of the facilities potentially subject to the SPCC rule. This limited knowledge hinders the agency's ability to effectively identify regulated facilities, establish inspection priorities, and evaluate whether the program is achieving its goals. Because EPA's regulations do not require facilities to report to the agency that they are subject to the SPCC rule, EPA does not know the universe of SPCC-regulated facilities and must identify them by other means. EPA identifies potential SPCC facilities through sources such as available oil spill data, state referrals, Internet searches, and the *Yellow Pages*. Then, through an inspection, EPA confirms whether a facility is covered by the rule. While inspections of known SPCC facilities are generally risk-based, the risk assessments exclude the large number of estimated SPCC facilities that have not yet been identified, some of which may pose more serious threats than those targeted for inspection. EPA is creating a national database to improve its management of the SPCC program by promoting standard data

collection across regions and expanding the amount of facility information available to regional managers. However, this database is limited to facilities that have already been inspected and will not enable program managers to better identify additional SPCC facilities. Ultimately, incomplete information on which facilities are subject to the SPCC rule, and where and how often leaks may occur, prevents the agency from effectively targeting inspections to those facilities that potentially pose the highest risks. Furthermore, EPA does not have performance measures that can be used to examine the SPCC program's effectiveness in preventing oil spills. EPA is developing such measures, but without more complete data on the SPCC-regulated universe, these measures cannot gauge the program's accomplishments.

State officials we contacted told us that requiring tank owners to register their facilities and report data allows states to more effectively manage their tank programs, and that better coordination with EPA would benefit both the SPCC and state programs. Specifically, because they require tank owners to register and to report data, five of the six states we contacted have information on the full universe of facilities subject to state regulations. With comprehensive data, these states can either inspect all of their facilities or target those facilities that they believe present the highest risk of oil spills. Officials in the sixth state, Missouri, told us that they obtain information on tanks through voluntary compliance and their relationships with affiliated industries. Furthermore, state officials told us that because they have detailed knowledge of the regulated facilities in their jurisdictions, EPA could benefit from increased coordination with their offices, such as when identifying and targeting facilities for inspection. Currently, the extent and nature of such coordination between EPA and the six states vary. Officials in five of the six states told us that they have occasional discussions or no contact with their EPA regions, but that they are open to more coordination with EPA on identifying and targeting facilities for inspections and conducting outreach activities. The remaining state, Virginia, has a formal agreement with EPA Region 3 to coordinate its regulatory programs' activities, such as aboveground oil storage tank inspections.

To more effectively manage the SPCC program, we are recommending that EPA (1) analyze the costs and benefits of the options for obtaining data on the universe of SPCC-regulated facilities, including, among others, a tank registration program similar to that of some states; (2) in conjunction with states that have oil spill prevention programs, develop uniform guidance for EPA regional offices on how to better communicate and coordinate with those states on SPCC-related issues; and (3) complete the

development of performance measures and obtain the data needed to evaluate the effectiveness of the SPCC program.

In commenting on a draft of this report, EPA generally agreed with our recommendations. According to EPA, the report provided a good, comprehensive picture of a portion of the oil spill program implemented by EPA's Office of Emergency Management. With regard to our recommendation that EPA finish developing performance measures and obtain the data needed to evaluate SPCC program effectiveness, the agency noted—as we acknowledge in the report—that EPA has already initiated work to develop such measures and that the feedback the report provides will help to further shape the agency's actions in this regard. Beyond agreeing with our other two recommendations, EPA did not comment on them.

Background

The Clean Water Act prohibits the discharge of oil and hazardous substances into or upon U.S. navigable waters or adjoining shorelines and directs the President to issue regulations establishing procedures, methods, and equipment requirements to prevent such discharges. The President subsequently delegated this responsibility to EPA. In 1973, to meet this responsibility as it relates to oil discharges, EPA issued the Oil Pollution Prevention Regulation—also referred to as the SPCC rule—which outlined the actions oil storage facilities that store greater than certain quantities of oil must take to prevent, prepare for, and respond to oil spills before they reach U.S. navigable waters or adjoining shorelines. In 1974, the SPCC rule took effect and EPA initiated the SPCC program. Under this program, regulated facilities must implement procedures and methods and have certain equipment to prevent oil discharges from reaching U.S. navigable waters and adjoining shorelines. SPCC requires facilities to prepare oil spill prevention plans that spell out (1) design, operation, and maintenance procedures to prevent spills from occurring and (2) countermeasures to control, contain, clean up, and mitigate the effects of an oil spill.

In 1994, in response to directives in the Oil Pollution Act of 1990—which amended the Clean Water Act—EPA established specific requirements for a subclass of SPCC facilities, including that these facilities develop and implement Facility Response Plans (FRP). According to EPA, there are about 4,100 FRP facilities nationwide—less than 1 percent of the estimated SPCC-regulated facilities. FRP facilities are those that, because of their location, could reasonably be expected to cause substantial harm to the environment by discharging oil into or on U.S. navigable waters,

adjoining shorelines, or the exclusive economic zone.[5] Under EPA regulations, facilities are considered FRP facilities if they have (1) 42,000 gallons or more of oil storage capacity and transfer oil over water or (2) 1 million gallons or more of oil storage capacity and meet other specific criteria, such as risking injury to sensitive environments or the shutting down of public drinking water intake. Owing to the higher risk they pose, FRP facilities are subject to more stringent rules and regulations than other SPCC facilities, primarily focusing on response preparedness. For example, FRP facilities must submit for EPA's review and possible approval, plans that identify the individual having full authority to implement removal actions at the facility and the resources available to remove a discharge, and describe the training, testing, and response actions of persons at the facility, among other things. Even though FRP facilities are subject to more stringent requirements than other SPCC facilities, they are required to have SPCC plans and are also inspected through the SPCC program.

In response to some major oil spills, our 1989 report, and similar findings by an EPA taskforce, the agency proposed revisions to the SPCC rule in 1991, 1993, and 1997 and finalized these amendments in 2002.[6] These amendments made over 30 changes that EPA considers major to the SPCC rule, such as including new subparts outlining the requirements for various classes of oil; revising the applicability of the regulation; amending the requirements for completing SPCC plans; and strengthening tank integrity testing requirements, among other changes. The final rule also contained a number of provisions designed to decrease regulatory burden while preserving environmental protection. Since then, EPA

- in 2006, made several major changes to the SPCC rule to further reduce regulatory burden, including an amendment that allows certain smaller facilities, identified as "qualified facilities," storing up to 10,000 gallons of oil, to prepare self-certified SPCC plans and

[5]The 1982 Convention on the Laws of the Seas granted coastal countries, such as the United States, exclusive economic zones that extend to a distance of 200 nautical miles out from a country's coast line. They provide a country with special rights over the exploration and use of marine sources within the zone.

[6]For example, 1 million gallons spilled into the Monongahela River from the collapse of an aboveground storage tank at the Ashland Oil Co. facility near Pittsburgh, Pennsylvania, in 1988.

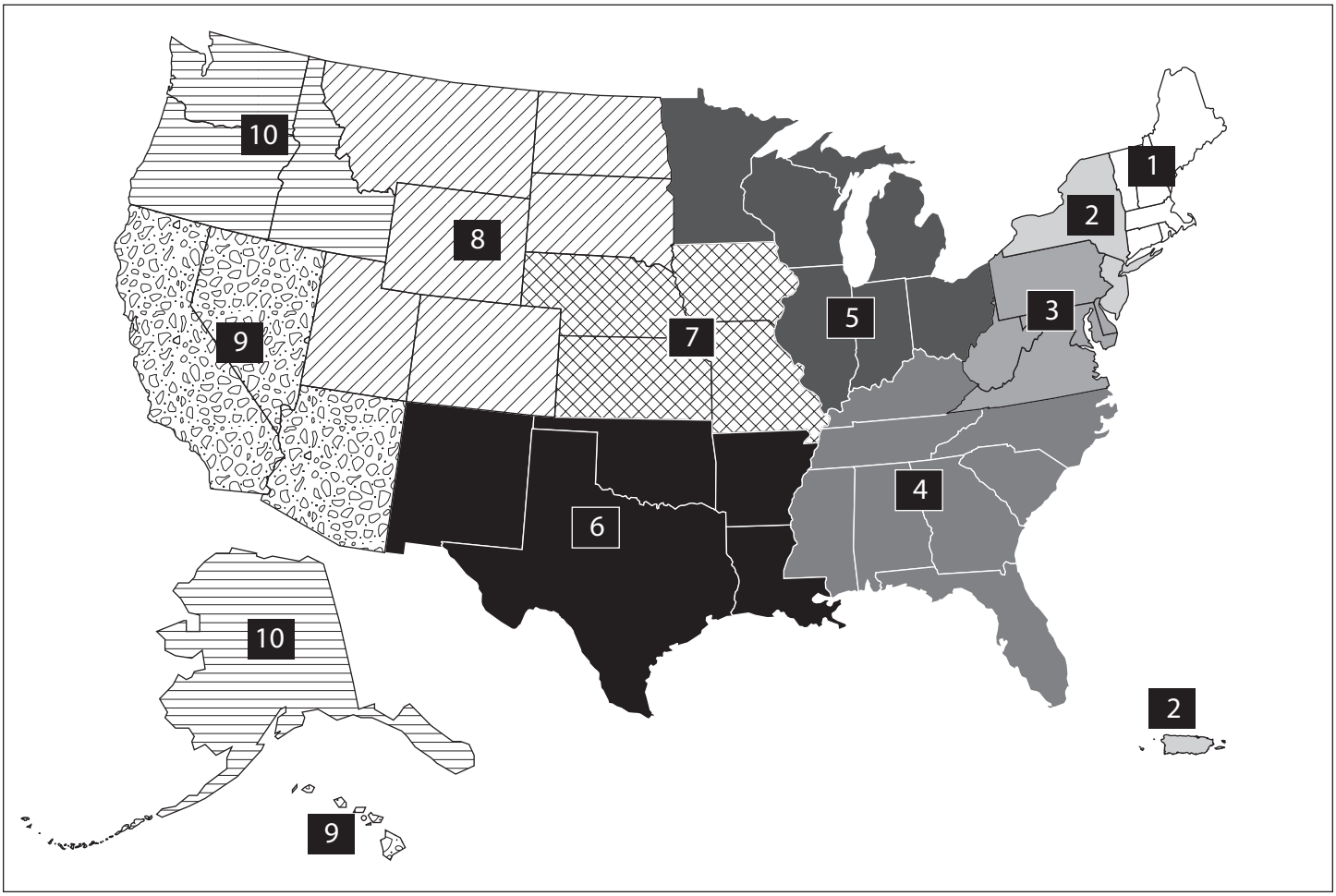
- in October 2007, proposed further changes to streamline the SPCC requirements to, among other things, reduce regulatory burden on industries such as farms and oil production facilities. The agency plans to make these changes final in late 2008.

Although EPA amended the SPCC rule in 2002 and 2006, the new requirements have not taken effect because EPA extended the date by which facilities were to come into compliance with these revised requirements in 2003, 2004, 2006, and 2007. That is, owners and operators of facilities operating on or before August 16, 2002, must continue to maintain their SPCC plans based on current SPCC requirements and then must amend them to ensure compliance with the amended requirements by July 1, 2009. Facilities beginning operations after August 16, 2002, have until July 1, 2009, to prepare and implement a plan. EPA made this latest extension to, among other things, give owners and operators of facilities the time to fully understand the 2002 and 2006 amendments and the further revisions that are planned for implementation in 2008, and to make changes to their facilities and plans. We reported on the reasonableness of the economic analyses EPA performed in support of the 2002 and 2006 amendments to the SPCC rule in July 2007.[7] We found that the economic analysis of the 2002 amendments had several limitations that reduced its usefulness for assessing the amendments' benefits and costs. We also found that although EPA's economic analysis of the 2006 amendments addressed several of the 2002 limitations, it also had some limitations that reduced its usefulness for assessing the amendments' benefits and costs.

EPA delegates implementation of the program to its 10 regional offices, which carry out inspection programs to ensure that the facilities are in compliance with the SPCC regulations. Figure 1 shows the locations of EPA's 10 regions.

[7]GAO, *Aboveground Oil Storage Tanks: Observations on EPA's Economic Analyses of Amendments to the Spill Prevention, Control, and Countermeasure Rule*, GAO-07-763 (Washington, D.C.: July 27, 2007).

Figure 1: EPA Regions



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When EPA inspects a facility, it typically sends one or more inspectors from the region to the facility. These visits generally begin with a list of questions about the facility, such as confirming that the facility meets the criteria for the SPCC rule and asking whether it has an SPCC plan. The inspectors will then review the plan to see if it contains information required under the SPCC rule, including facility diagrams, training of employees, security measures, containment structures, and records of facility inspection and tests. The inspectors then tour the facility and examine how the plan is being implemented by, for example, inspecting equipment and taking notes and photographs. After the inspection, a

compliance determination that completes the inspection process for that facility is made unless observed noncompliance warrants another fact-finding inspection.

Before informing facility owners or operators of any violations found, inspectors may discuss their observations with supervisors and enforcement and compliance staff to determine what actions to take. This process generally takes several weeks, but can take up to several months, depending on the severity of the violations. Determining whether a penalty is appropriate or determining appropriate penalties for violations depends, among other things, on the seriousness of the violation, the economic benefit to the facility owner or operator resulting from the violation, the degree of the facility owner's or operator's culpability in the violation, and any history of violations at the facility. When a violation is found, EPA may send a "notice of deficiency," "letter of violation," or similar notice to the owner or operator.[8] The owner or operator could also receive an Expedited Settlement Agreement (ESA) offer to settle the violations by paying a penalty between $500 and $2,500 and promptly correcting any violations found.[9] Finally, EPA could seek the issuance of an administrative penalty order against the owner or operator, or submit a judicial referral for penalties to the Department of Justice.[10] Typically, the investigation is considered closed when, in cases where there is a deficiency but not a penalty, corrective actions are taken, or when a penalty is issued, when the penalty payment is received and corrective action is performed.

EPA headquarters annually determines how funds for implementing the Oil Program are allocated to regional offices. The budget allocation for the Oil Program combines funds for oil spill prevention (SPCC), preparedness

[8]These letters or notices are essentially warnings to the recipients informing them that the facility is in violation of the Clean Water Act and indicating the possibility of escalated enforcement action if the violation is not corrected in a timely manner.

[9]According to EPA officials, ESAs are generally appropriate for minor, easily correctable violations and provide for a lower penalty settlement than called for by the civil penalty policy under Section 311 of the Clean Water Act.

[10]Administrative penalties can be either Class I or Class II penalties. Class I administrative penalties may not exceed $11,000 per violation or $32,500 in total. Class II administrative penalties may not exceed $11,000 per day of violation or $157,500 in total. For penalties above $157,500, the case is referred to the Department of Justice to obtain civil penalties in a federal district court. EPA officials stated that in administrative enforcement actions, EPA can seek only monetary penalties, not actual compliance.

(FRP and area contingency planning), and response infrastructure. As shown in table 1, the total operational budget allocated for EPA Oil Program activities in fiscal year 2006 was $12 million and, in fiscal year 2007, $12.3 million. In fiscal year 2006, EPA allocated between 5 and 10 percent of the total operational budget for Oil Program activities to each EPA regional office. In fiscal year 2007, EPA's allocation for Oil Program activities to each EPA regional office ranged between 5 and 9 percent. EPA regional offices determine how they will use the allocated funds to implement the SPCC program in their regions, including how they will manage inspection and enforcement activities.

Table 1: Fiscal Year 2006 and 2007 Operational Budgets for Oil Spill Prevention, Preparedness, and Response Infrastructure, by Region

Dollars in thousands

	Fiscal year 2006		Fiscal year 2007	
	Operating budget	Percentage of total 2006 program budget	Operating budget	Percentage of total 2007 program budget
Headquarters	$2,883.7	24	$2,958.00	24
Region 1	865.2	7	889.00	7
Region 2	899.4	7	896.00	7
Region 3	896.9	7	933.00	8
Region 4	1,261.6	10	1,146.00	9
Region 5	912.5	8	1,161.00	9
Region 6	1,141.9	9	1,098.00	9
Region 7	592.3	5	679.00	5
Region 8	786.0	7	779.00	6
Region 9	896.1	7	868.00	7
Region 10	930.4	8	941.00	8
Total	**$12,066.2**	**100**	**$12,348.00**	**100**

Source: GAO analysis of EPA data.

Note: Percentages may not add up to 100 due to rounding.

According to EPA headquarters and regional officials, most funds for oil spill response come out of another fund—the Oil Spill Liability Trust Fund—which is managed by the U.S. Coast Guard. Although EPA receives some funding from the emergency response portion of the Oil Spill Liability Trust Fund for response activities, there are no funds provided for additional staff to conduct inspection activities. The staff that perform other oil spill activities, including SPCC inspections, also conduct

response activities. Thus, when there is a high level of response activity, there may be an impact on prevention and preparedness activities, including the number of SPCC inspections.

In our 1989 report, we made several recommendations to EPA's Administrator to strengthen SPCC regulations and the program. Among other things, to strengthen SPCC regulations, we recommended that EPA require that (1) aboveground storage tanks be built and tested in accordance with industry or other specified standards, (2) facilities develop response plans for spilled oil beyond the facilities' boundaries, and (3) storm water drainage systems be designed and operated to prevent oil from passing through them. EPA included provisions in the 1991 SPCC proposed amendments to implement the recommendations regarding tank integrity testing and storm water drainage systems and finalized these amendments in the 2002 rule. In 1994, EPA partially addressed our recommendation regarding submitting response plans when it began requiring FRP facilities to submit plans as required by the Oil Pollution Prevention Act of 1990. This act required the President to issue regulations for response plans for oil or hazardous substances for facilities that, because of their location, could reasonably be expected to cause substantial harm to the environment by discharging into or on U.S. navigable waters and adjoining shorelines, or the exclusive economic zone. EPA, however, did not require response plans from other SPCC facilities.

Furthermore, our 1989 report recommended that EPA take the following four actions to improve its implementation and evaluation of the SPCC program:

- better define the training needs for the agency's SPCC inspectors because each of EPA's regions had established a training program for SPCC inspectors using different program styles, curricula, and manuals;
- develop instructions for performing and documenting inspections because EPA had not required the regions to follow uniform inspection or documentation procedures, allowing regions in many cases to let inspectors rely on their experience and knowledge;
- establish a national policy for fining violators because, in the absence of a policy, regions had adopted inconsistent polices and rarely assessed fines; and

- develop a system of inspection priorities, based on a national inventory of tanks, because, without knowing the location and number of facilities or tanks, EPA could not assess the relative risk of spills to the environment or target for inspections the facilities most in need of attention.

In 1993, the Congress passed GPRA, requiring all federal agencies to (1) develop and submit strategic plans covering at least 5 years to the Congress and the Director of OMB, (2) set annual performance goals consistent with the goals and objectives in the strategic plans, and (3) annually compare actual program results with established performance goals and report this information to the Congress. Under the act, agencies are to prepare annual performance plans that articulate goals for the upcoming fiscal year that are aligned with their long-term strategic goals described in the strategic plans. These annual performance plans must include results-oriented annual goals linked to program activities and indicators that the agency will use to measure performance against the results-oriented goals. Performance measures are the yardsticks used to assess an agency's success in meeting its performance goals.

EPA Allows Regional Offices Flexibility in Implementing the SPCC Program while Taking Steps to Promote Consistency when Needed

Over the last several years, EPA has allowed each regional office to implement the SPCC program in a manner that best fits its unique circumstances while also establishing national SPCC policies and procedures to promote consistent enforcement of SPCC regulations. EPA allows flexibility because the EPA regional offices often have different numbers and types of regulated facilities and staffing arrangements, and face different geographic challenges in implementing the SPCC program. Partly because of these regional differences, the number of facilities inspected and the level of enforcement taken have varied across regional offices in recent years. To promote consistency in how SPCC regulations are interpreted and enforced, while allowing for this variation, EPA has also developed a training curriculum for inspectors and guidance on how to conduct SPCC inspections and penalize violators.

EPA Allows Regional Offices Flexibility in Implementing the SPCC Program

While EPA has budgeted similar amounts for each region's SPCC activities in recent years, its regional offices may use varying staffing arrangements to conduct inspections. According to our survey, Regions 1 and 2 use only EPA regional employees for SPCC inspections, while other regions, such as Region 6, employ several contractors and EPA personnel to perform these inspections. In many regions, EPA on-scene coordinators, whose primary function is emergency response, also conduct SPCC inspections. In addition, some EPA regions employ their regional and contract staff full

time on SPCC inspections, while other regions—such as Region 6—in addition to the personnel dedicated to SPCC inspections, have several employees who split their time between SPCC inspections and inspections for other EPA environmental regulations or programs. Furthermore, inspectors may differ in how they allocate their time. For example, according to Region 5 officials, their inspectors divide their time between enforcement activities and inspection activities, while Region 6 and 8 officials told us that they have separate offices and staff members to perform these activities. Table 2 shows the regions' SPCC staffing and amount of time spent on SPCC-related activities in fiscal year 2006, such as planning for inspections, conducting outreach to facilities, visiting facilities, and documenting inspection results.

Table 2: Staffing and SPCC-Related Activities, Fiscal Year 2006

					Percentage of time spent and number of individuals who engaged in SPCC-related activities			
Region	Total number of EPA regional employees who conducted SPCC inspections	Number of contractors or grantees who conducted SPCC inspections	Number of individuals who conducted only SPCC inspections	Number of individuals who conducted SPCC and other EPA inspections	Less than 25 percent	25 percent to 50 percent	50 percent to 75 percent	Greater than 75 percent
1	11	0	6	5	9	0	2	0
2	16	0	16	0	14	2	0	0
3	5	1	6	0	2	1	0	3
4	24	1	21	4	24	0	1	0
5	2	2	4	0	1	0	0	3
6	3	7	2	8	3	0	0	7
7	6	1	3	4	5	2	0	0
8	1	3	3	1	0	1	1	2
9	2	0	2	0	0	0	0	2
10	5	5	9	1	5	3	1	1
Total	**75**	**20**	**72**	**23**	**63**	**9**	**5**	**18**

Source: GAO survey of EPA regions.

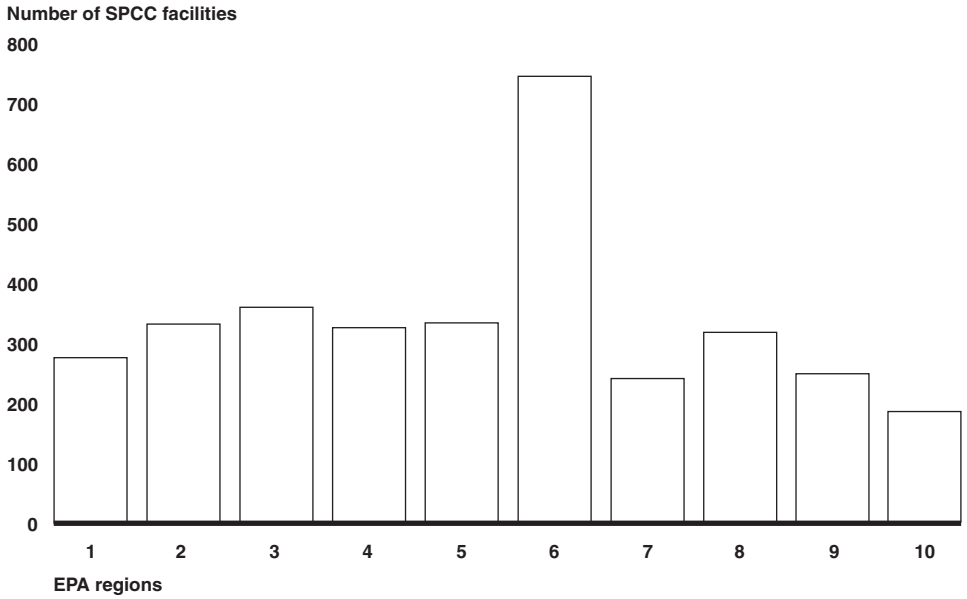
EPA officials told us that some regional variation in staffing and time spent on SPCC-related activities is inevitable and necessary owing to different management structures, geographic size, and number and type of regulated facilities. For example, some regions, such as Region 8—which is responsible for Colorado, Montana, North Dakota, South Dakota, Utah,

and Wyoming—must take into consideration significant travel costs, while Region 1—which is responsible for Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont—has much lower travel costs. In addition, EPA Region 6, which is considered to have a large portion of the nation's oil business, uses several contractors or grantees as well as EPA inspectors to conduct inspections. Finally, Region 10 has unique travel challenges associated with remote facilities in Alaska and, in particular, North Slope operations.

According to EPA officials, partly as a result of the differences in how the regions staff the SPCC program, and the travel issue associated with the geographical differences in the regions, the number of facilities each EPA region has inspected in recent years has varied. Also, the number of SPCC inspections may be affected when it is necessary for EPA regional staff's time to be dedicated to unique response operations (such as Hurricane Katrina).

Our survey shows that EPA's regional offices inspected a total of 3,359 facilities for compliance with the SPCC rule from fiscal year 2004 through fiscal year 2006, or less than 1 percent of EPA's estimate of the number of SPCC-regulated facilities in the United States. However, the number of facilities inspected in each EPA region varied in these years—from 184 in Region 10 to 745 in Region 6. (See fig. 2.)

Figure 2: Number of SPCC Facilities Inspected, Fiscal Years 2004 through 2006

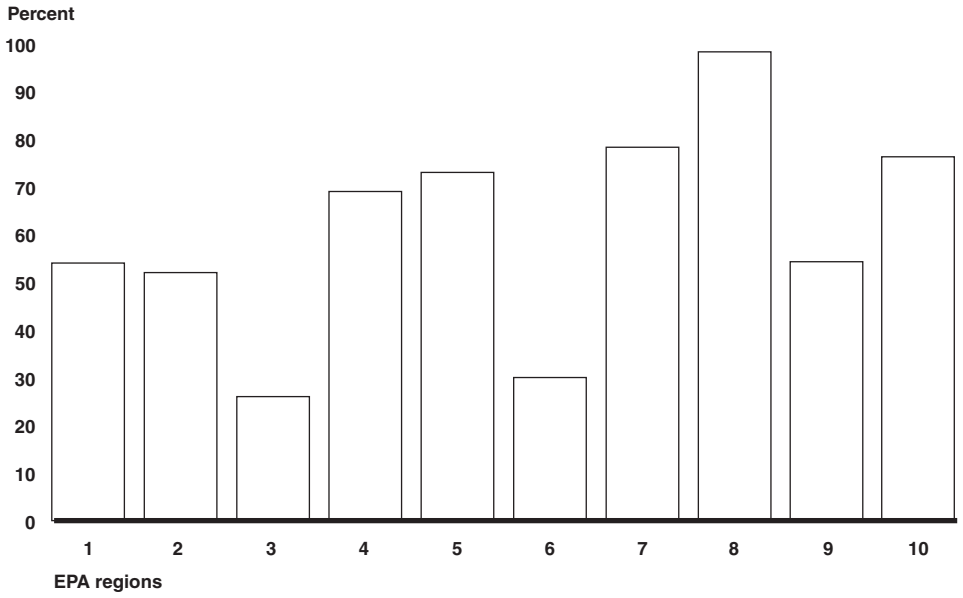


Source: GAO analysis of EPA data.

The percentage of facilities complying or not complying with SPCC regulations at the time of inspection also has varied across regional offices. For example, as shown in figure 3, in fiscal year 2006, the rate of facility noncompliance—measured as the percentage of inspected facilities found to be not fully complying with the requirements—ranged from a low of 26 percent in Region 3 to a high of 98 percent in Region 8, according to our survey. The average rate of facility noncompliance of inspected facilities across regional offices was about 59 percent.[11]

[11]This is an approximate percentage of noncompliance. Some totals of facilities reported as being in compliance or noncompliance may not equal the total number of inspected facilities in that year. This may be due to inspections that were ongoing at the end of the fiscal year, where compliance had not yet been determined. The average rate is based on the number of facilities that regions reported being in noncompliance, divided by the total number of facilities reported as inspected in that year.

Figure 3: Percentage of Facilities Inspected in Fiscal Year 2006 That Were Not in Compliance with SPCC Regulations



Source: GAO analysis of EPA data.

We also found regional differences in the extent of enforcement actions taken against inspected facilities—as measured by the percentage of noncompliant facilities that were subject to enforcement action in fiscal year 2006—from a low of zero for Regions 7 and 10 to a high of 84 percent in Region 6. According to EPA officials, these regional differences are due to various reasons, including how each EPA region has historically defined "compliance" and the types of enforcement actions each region uses. For example, some regions may use ESAs as an enforcement action more than others. ESAs allow EPA officials to negotiate compliance with facility owners without using traditional enforcement mechanisms. According to EPA, ESAs also use fewer EPA resources and promote quick settlements with violators. They can take between 30 and 60 days to complete, while traditional enforcement mechanisms can take years to settle, depending on the violation, the type of facility, and the extent of any court-ordered corrective actions. The shorter time frame allows those regions that use ESAs to conduct enforcement actions against a relatively large proportion of noncompliant facilities. Currently, all regions except Region 5 use ESAs to varying degrees, and that is a factor in the large variation in enforcement activities across regions. Region 5, which covers most of the Great Lakes states, does not use ESAs at all, because, according to Region 5 officials, they focus on taking enforcement actions against the more

serious noncompliant cases that would result in larger Class II administrative penalties, rather than the less serious cases where they could use ESAs.

EPA's use of ESAs in recent years has outpaced the agency's use of the more resource intensive traditional enforcement mechanisms. According to our survey, EPA regional offices concluded a total of 111 ESAs in fiscal year 2006, compared with 21 settlements using traditional enforcement mechanisms. EPA Regions 1, 3, 6, and 9 each issued ESAs in more than 25 percent of the cases in which inspectors found facilities were noncompliant. Together, these four regional offices concluded 97 of the 111 ESAs issued by all regional offices in fiscal year 2006, with Region 6 alone issuing 60 ESAs. In addition, according to officials in Region 6, they believe that their use of ESAs has resulted in increased compliance through word of mouth by regulated facilities about the mechanism. EPA headquarters officials stated that given that the SPCC requirements are performance-based, they continue to learn from and share information with the regions about alternative approaches to achieve facility compliance.

EPA Has Developed SPCC Policies and Procedures to Promote Consistent Enforcement of SPCC Regulations

While regional offices have flexibility in implementing the SPCC program to address factors unique to each region, EPA has taken steps over the last several years to promote consistency in how the regions interpret and enforce the SPCC regulations. As we reported in 1989, procedures for training SPCC inspectors, conducting inspections, and enforcing compliance varied across EPA regional offices.

For example, in 1989 we found the following:

- Each EPA regional office had developed its own training program for SPCC inspectors using different styles, curricula, and manuals. As a result, SPCC inspectors were conducting inspections after meeting different training requirements, and had different levels of knowledge and skills.
- EPA had not required its regions to follow uniform procedures for conducting and documenting inspections, and had not developed written procedures on how to conduct inspections. EPA regional officials told us at the time that they relied on the experience and knowledge of individual inspectors rather than on written procedures.
- EPA did not have a uniform policy in place to determine the type of enforcement action, including penalties when enforcing SPCC regulations,

and rarely used enforcement mechanisms. Some EPA regional officials had stated that the inspection itself, and the threat of possible penalties, was sufficient to bring the facilities into compliance. While we agreed that frequent inspections would promote compliance, we stated that greater compliance would most likely be achieved if penalties were assessed.

As a result of these findings, we recommended that EPA define and implement minimum training needs for inspectors, develop instructions for performing and documenting inspections, and establish a national policy for penalizing violators of SPCC regulations.

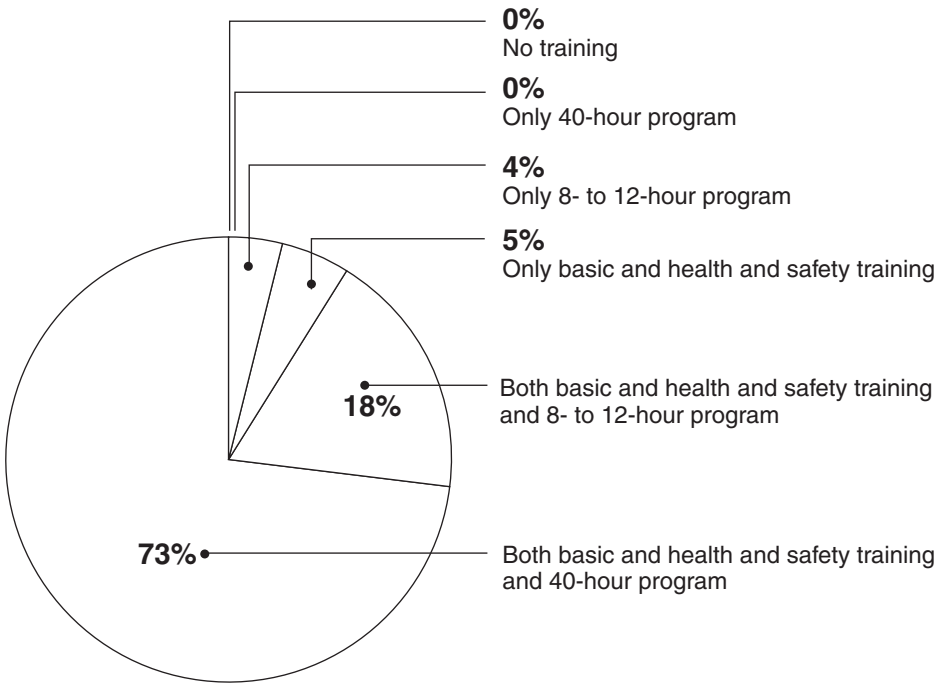
In response to these recommendations, EPA developed a new training protocol. It now requires inspectors to be trained both in the basic principles of inspections and in the conduct of SPCC inspections. EPA now requires 40 hours of specific SPCC/FRP classroom time that provide inspectors with information on the history and scope of the SPCC and FRP rules, relevant vocabulary, inspection requirements, tank integrity testing procedures, SPCC and FRP plan review, and enforcement issues and procedures. EPA requires all media inspection programs to train their inspectors in basic inspector training, health and safety training, and program-specific inspector training.[12] The SPCC/FRP training program is standard across EPA, and is offered to new inspectors approximately every 6 months. EPA also offered 8- to 12-hour "short courses" that it designed to temporarily fulfill training requirements while it developed the 40-hour program training following the 2002 rule requirements. While these short courses are condensed versions of the 40-hour SPCC/FRP course, they were not intended to be long-term substitutes for the more extensive training sessions. In addition to classroom training, EPA requires on-the-job training, in which new inspectors shadow more experienced inspectors during site visits, training for inspection supervisors, and annual refresher courses. The on-the-job and refresher training is offered in the regions and nationally at certain training events.

According to our survey, 73 percent of individuals who inspected at least one SPCC facility in 2006 met the full requirements for classroom training—that is, they had received basic inspector training in combination with the mandatory 40-hour SPCC/FRP-specific program. Figure 4 shows,

[12]Under a 2003 agency order, this requirement is to be fulfilled before EPA inspectors can lead an inspection, but it does not preclude an inspector from participating in an inspection as part of a team.

for fiscal year 2006, the training level of inspectors who inspected at least one facility.

Figure 4: Training Level of Inspectors Who Inspected at Least One Facility, Fiscal Year 2006



Source: GAO analysis of EPA data.

In 2005, EPA issued national guidance to facilitate consistent understanding among regional inspectors on how to apply provisions of the SPCC rule. This guidance has been incorporated into the EPA national inspector training that EPA regional inspectors receive, and it is also available to owners and operators of facilities that may be subject to SPCC requirements. Inspectors use the inspection and plan review checklists included in the guidance as they inspect a facility to ensure that they conduct complete inspections. In visits to three SPCC facilities in three EPA regions, we found that inspectors were using the checklist. In addition, regional officials told us that the guidance provided them with information on how to enforce the SPCC regulations and also helped them in answering facility owners' questions on compliance. OEM has also developed and presented specialized inspector training courses that address topics related to corrosion, integrity testing, and production sector operations.

EPA further addressed our 1989 recommendations by issuing a national penalty policy for SPCC enforcement in 1998. Among other things, this EPA policy describes the penalties that EPA can collect through administrative and enforcement actions for SPCC violations and includes a minimum settlement penalty calculation, which generally describes what EPA would accept as a settlement.[13] The policy also lays out a process that EPA enforcement officials can use to determine the level of seriousness of different SPCC violations and their associated penalties. EPA officials told us that EPA regions consistently use this tool—adjusted for inflation—when determining penalties.

EPA Has Limited Information for Implementing and Evaluating the SPCC Program

EPA's ability to implement the SPCC program is limited by three factors. First, facilities subject to the SPCC rule are not required to identify themselves to EPA, and therefore EPA cannot effectively identify and target facilities for inspection and enforcement. Second, the national database EPA is creating to improve SPCC program management is limited to facilities that have already been inspected; consequently, the database will not enable program managers to better identify additional SPCC facilities. Finally, EPA cannot determine the extent to which the SPCC program is succeeding in its goal of preventing oil spills to U.S. navigable waters and adjoining shorelines because of the limited data and because EPA does not have performance measures to examine program effectiveness.

EPA Has Limited Data for Identifying Facilities Subject to the SPCC Program and Effectively Targeting Inspections

Although EPA estimated in 2005 that more than 500,000 facilities nationwide could be subject to the SPCC rule, the actual number is unknown. According to EPA officials, none of the EPA regional offices have complete data for their jurisdictions on the number of potential SPCC-regulated facilities or tanks; their location, size, age, quality of construction; or method of operation.

To address these data gaps, we recommended in 1989 that EPA develop a national inventory of all facilities under the program's jurisdiction. We stated that a national inventory could gather the information necessary to assess the relative risks of spills and allow EPA to develop a system of inspection priorities, which would require national guidance on how to

[13]Office of Enforcement and Compliance Assurance, EPA, Civil Penalty Policy for Section 311(b)(3) and Section 311 (j) of the Clean Water Act, August 1998.

select facilities for inspection. While EPA did not directly act upon our recommendation, in 1991 it proposed a rule to require any facility subject to the SPCC rule to make itself known to the agency on a onetime basis, and subsequently sought OMB's approval to collect data from all facilities that might be covered by the SPCC rule. However, as we noted in our 1995 report, OMB stated that EPA had not adequately justified the proposed reporting requirements and did not approve the request.

EPA conducted a survey in 1995 to estimate the number and size of oil production and storage facilities in most industries regulated by the SPCC rule. Since then, EPA has updated its estimates of the number of facilities in the SPCC universe, but it still does not know the exact universe of facilities and their locations. In the preamble to the 2002 amendments to the SPCC rule, EPA explained that it had decided not to pursue the proposed notification requirement because it was still considering whether to establish a paper or an electronic notification system. EPA officials recently stated that the agency has still not fully considered a notification requirement. According to EPA officials, the agency also has not developed national guidance on how to target facilities for inspection, although it has crafted a framework in preparation for this guidance. EPA officials stated that the agency plans to develop this guidance, but it has not yet established a schedule for completing it. However, this guidance will not be based on an assessment of the relative risks of spills across all facilities because EPA does not have such information.

Because EPA has incomplete information about which and how many facilities are subject to the SPCC rule, the regional offices attempt to identify SPCC facilities through a variety of indirect means and limited information sources. For example, according to our survey, 9 out of 10 EPA regional offices reported that they use oil spill data from the National Response Center (NRC) to identify regulated facilities and target them for inspection.[14] NRC data track the incidence of oil spills as they are reported to NRC, but these data do not always associate spills with the specific facilities where they originated or include detailed information about those facilities. In addition, if any information is later collected on the actual source or facility responsible for an oil spill, NRC does not update its database. Consequently, NRC data generally can alert SPCC program

[14]NRC is the federal government's national communications center and the national point of contact for spill reporting. NRC also distributes reported spill information to agencies—including EPA and the U.S. Coast Guard—tasked with responding to spills. It is staffed 24 hours a day by Coast Guard officers and marine science technicians.

officials to the possibility that SPCC facilities may be in the area of a reported spill rather than positively identifying any facilities as being subject to the rule.

Nine out of 10 regional offices also reported using referrals from state agencies or other institutions to identify SPCC facilities and target inspections. For example, officials in EPA Region 3—which covers Delaware, the District of Columbia, Maryland, Pennsylvania, Virginia, and West Virginia—stated that, for the last 2 years, the region has requested all the states in its region to provide a list of facilities that the states would like inspected, and then incorporated these facilities into its inspection planning for the fiscal year. The region then submits the list of facilities to be inspected to the states for comment.

According to an EPA official, the agency's reliance on incomplete spill data and state referrals does not allow it to target facilities for inspection on the basis of their relative spill risks. EPA officials told us that, to a certain extent, the fact that they know about a facility at all—because of past spills and state referrals—can be an indication that the facility poses a relatively high risk. However, EPA does not have sufficient information to determine with any certainty how the risks posed by these facilities compare with those of other as yet unknown and not inspected SPCC-regulated facilities.

EPA regions have also used other strategies to both identify SPCC facilities and target them for inspection. For example, Region 6 has developed its own geographic information system (GIS)—the On-Scene Coordinators Area Response System (OSCARS)—to identify facilities that may pose a high risk of spills into or upon navigable waters and adjoining shorelines. OSCARS provides regional inspectors with a graphics-based tool that integrates basic geographic information with separate location-based data sets, such as the location of lakes, waterways, and roads with industrial infrastructure, such as regulated facilities and pipelines. The output from this tool can be used by officials to help identify and pinpoint the location of facilities and prioritize their inspections based on potential risk and other criteria. EPA officials told us that OSCARS may have some outdated information because it is costly to update, but they considered this an acceptable limitation. According to Region 6 officials, OSCARS has allowed them to more effectively target problem sites and identify egregious regulation violators. They consider OSCARS of particular importance in Region 6, in which 116 counties contain a large proportion of the nation's petroleum facilities and exhibit high-risk characteristics such as the potential to cause significant and substantial harm to the

environment or public health if a large release into or upon navigable water occurs. In addition, according to Region 6 officials, all EPA regions have the capability to develop GIS systems for SPCC- and FRP-regulated facilities to respond promptly to an oil spill.

Some other EPA regions use certain other criteria to conduct as many inspections as possible given resource constraints, as the following examples show:

- According to Region 5 and 8 officials, inspectors will visit a chosen location and inspect as many facilities as they can in that area within a week.
- Region 3 officials stated that although the region inspects facilities in all the states within their region, each fiscal year they perform more inspections in Delaware and Maryland than in Virginia because of the travel funding limitations.
- Several EPA regional officials stated that they try to identify and target additional facilities to inspect by, among other things, talking to the local population, consulting the Internet and local *Yellow Pages*, or through "drive-by sightings."

None of the data sources that regional offices consult when trying to identify and target facilities necessarily indicate that a facility is subject to SPCC regulations. Regional officials stated that SPCC inspectors sometimes identify and visit a facility, only to discover that the facility is either not subject to the SPCC rule or, if it is a facility established after 2002, will not be subject to the regulations until July 2009. EPA officials said that visits to non-SPCC facilities waste limited inspector time and program resources. In contrast, if SPCC inspectors find that the facility is subject to SPCC regulations, they can conduct a full inspection.

Recognizing the constraints on their ability to identify and effectively target facilities for inspections, the regions also conduct outreach activities to encourage compliance. To inform owners of facilities that may be subject to SPCC regulations of their obligations, EPA regions we spoke with devote substantial time to outreach activities. For example, Region 5 officials told us that an estimated 75 percent of their time spent on SPCC activities is devoted to outreach and compliance assistance. These activities include, among other things, attending seminars and educating facility owners through regular mail, e-mails, and calls about SPCC regulations. EPA officials hope that educating facility owners will lead to

more overall compliance, giving facility owners a chance to comply with SPCC regulations on their own initiative rather than waiting until they might be inspected and found out of compliance.

EPA's New Database to Facilitate SPCC Program Implementation Has Limitations

EPA is launching a pilot SPCC/FRP national database that it hopes will be more useful to regional managers in implementing the SPCC program than existing data sources. The pilot database is essentially an expansion of the database that EPA has maintained on about 4,100 FRP facilities. EPA officials hope that a central database will make it easier to gather more consistent facility information across regions and provide for more efficient use of the regions' time and resources. The expanded database will include information from the following sources:

- *The Integrated Compliance Information System (ICIS)*. Since 2005, EPA has required regional SPCC inspectors to record their inspections in ICIS, a central database designed to track the number of inspection and enforcement cases across several EPA programs. However, EPA officials told us that ICIS is not particularly useful to program managers in implementing the SPCC program. For example, ICIS records the initial investigation and enforcement outcomes of investigation cases, but it does not allow the user to track a facility's progress in coming into compliance after violations have been found. As a result, the regions' use of ICIS is largely limited to checking facilities' inspection histories when considering them for inspection, to determine if the facility has been inspected previously and if it has a history of violations.

- *Regional databases.* Most regional offices also maintain their own program databases, in addition to ICIS, to track open SPCC cases and the number of inspections. However, EPA officials told us that without a way to know when an SPCC facility opens, closes, or makes changes, facility information kept in these regional databases can quickly become out of date after a case is closed.

  The pilot SPCC/FRP national database is intended to provide regional personnel with a nationally consistent platform to track facility status and inspection information. The database fields include the facility's name, relevant program identification numbers, status, and location, including its distance from navigable waters and whether it is subject to either SPCC or FRP regulations. The database can sort information by these fields to generate more descriptive reports than is possible with existing data sources. As of October 2007, EPA had entered information on about 5,000 previously inspected SPCC facilities going back to 1987. The pilot national

database will also allow program managers to track open SPCC cases as they progress.

According to an EPA official, in December, 2007 the pilot SPCC/FRP national database was made available to regional managers for their review and comment. EPA noted that this data consolidation effort is ongoing and EPA officials have a tentative time frame of the end of 2008 to implement the database nationally to the regions. Regardless of timing, however, EPA officials acknowledge that this database will not help the agency to further identify all SPCC-regulated facilities. However, EPA intends to further evaluate how the database, and other program activities, can more effectively target facilities for inspection.

EPA Has Neither Data Nor Performance Measures to Adequately Measure the SPCC Program's Success

EPA's limited data make it difficult for the agency to determine the extent to which the SPCC program is achieving its goals. While EPA can determine whether a facility is complying with SPCC requirements by inspecting it, the agency inspects only a small portion of the total universe of SPCC facilities—less than 1 percent of the estimated more than half a million facilities per year. Consequently, the agency is limited in evaluating the success of the SPCC program. Without data on the full regulated community, EPA is unable to assess the program's effectiveness in preventing oil spills from the vast majority of the facilities subject to the SPCC rule.

Even if EPA had the necessary data, it does not have the appropriate performance measures in place to examine the extent to which the program is meeting its goals. Currently, to evaluate the SPCC and FRP programs, EPA uses two performance measures that focus on the level of facility compliance: "the percent of inspected SPCC facilities in compliance with the regulations at the time of inspection" and "the percent of inspected FRP facilities in compliance with FRP regulations at the time of inspection." These measures were developed for SPCC as part of a 2005 OMB program review.[15] According to EPA officials, both EPA and OMB recognized at the time that these measures on facility compliance do not fully capture the effectiveness of the overall program in preventing oil

[15]OMB conducted a program assessment of EPA's oil spill control program in 2005, including an assessment of strategic planning and program design, management, and performance measures. It rated each area and suggested improvements to the program.

spills from regulated facilities into or upon U.S. navigable waters and adjoining shorelines, and that improved measures should be developed.

EPA officials expressed concern about the appropriateness of using performance measures that are focused on facility compliance levels. First, according to these officials, regional program managers try to identify and target facilities that present a large spill risk in an effort to ensure spill prevention and therefore should not expect to see high rates of facility compliance upon inspection because of the nature of these facilities.[16] Second, they told us that program managers are held accountable for achieving the goals set in these "percent compliance" measures in their performance reviews. Consequently, these officials are concerned that the goal of compliance at the time of inspection might steer regional offices away from inspecting the facilities that they believe pose the highest risk of noncompliance in order to improve their compliance rates.

As a result of concern over the current program measures, EPA initiated a joint OEM/regional workgroup to develop revised measures for the SPCC and FRP programs. OEM has committed to OMB to begin implementation of the new program measures in fiscal year 2009.

[16]EPA officials told us that defining "compliance" has also raised some questions on how to measures the "percent of SPCC and FRP facility compliance." When the measures were established, there were questions across regional offices about how "compliance" should be defined and measured. SPCC management subsequently clarified the measure as full—rather than partial—compliance with the SPCC and FRP regulations at the time of initial inspection. According to EPA officials, the regional offices should now be using this common definition of compliance when reporting their results. However, concerns about the appropriateness of these output measures in assessing the SPCC program remain.

States Report That Registration Requirements Lead to More Effective Tank Program Management and That Better EPA-State Coordination Efforts Would Be Beneficial

The six state tank programs we reviewed suggest a number of potential options for improving the implementation of the SPCC program. Like the SPCC program, the state programs we reviewed generally have the goal of preventing and controlling oil spills. However, unlike the SPCC program, the state programs all collect information on the status and location of all tanks subject to their state regulations, according to state officials. Furthermore, the six states use this information to periodically inspect all of their regulated facilities. The states' collection of tank data could benefit the SPCC program, according to state officials, noting that better coordination with the states could help identify and target SPCC facilities for inspection and inform owners of SPCC-regulated facilities about storage tank requirements.

Six States Obtain Data That Enable Them to Inspect the Full Universe of Their Regulated Tanks

The six states we contacted—Florida, Minnesota, Missouri, New Jersey, New Mexico, and Virginia—have oil tank requirements and inspection processes that differ in some respects from each others' and from EPA's. Specifically, the type of regulated tanks or facilities may differ from those subject to the SPCC rule. Table 3 summarizes the number and types of tanks subject to regulation in the six states and key actions required by these regulations.

Table 3: Summary of States' Aboveground Storage Tank Program Requirements and Activities

	Missouri	Florida	Minnesota	New Jersey	New Mexico	Virginia
Regulations						
Facility or tank capacity	All tanks utilized for the sale of products, regardless of size, with petroleum or certain hazardous substances; most tanks between 1,000 and 30,000 gallons	Tanks with 550 gallons or more of oil or certain hazardous substances	Regulates tanks with 500 gallons or more of oil and other hazardous substances; permits required for facilities with 1 million gallons or more total capacity	Facilities with 200,000 gallons or more of petroleum or 20,000 gallons or more of hazardous substances	Tanks or combinations of tanks with 1,320 gallons or more of petroleum. Tanks with 55,000 gallons or more of petroleum are not currently regulated by the state.	Tanks with greater than 660 gallons of oil or facilities with greater than 1,320 gallons of oil have to be registered. Facilities with an individual tank or aggregate capacity of tanks of 25,000 gallons or more of oil have additional requirements; tanks with over 1 million gallons of oil have more requirements.
Number of regulated facilities	5,500	20,354	3,500	320	1,700	780

	Missouri	Florida	Minnesota	New Jersey	New Mexico	Virginia
Regulations focused on protecting ground and surface water	Yes	Yes	Yes	Yes	Yes	Yes
Registration						
Regulated facilities must register	No	Yes	Yes[a]	Yes	Yes	Yes
Registration fee	No	Yes	No	No	Yes	Yes
Regulated facilities must report facility changes	No	Yes	Yes	Yes	Yes	Yes
Facilities must report leaks	Yes	Yes	Yes	Yes	Yes	Yes
Program activity						
Number of Inspections	By mandate, about 11,000 per year	26,687 underground and aboveground storage facilities in fiscal year 2006	250-300 annually	About 240 annually	1,200 per year	About 200
Number of enforcement actions	Unknown	4,067 in fiscal year 2006	A few enforcement actions annually	About 80 to 100 in total annually; around 20 with penalties per year	50 annually	15
Above and underground storage tank programs are jointly managed	No	Yes	Yes	No	Yes	No
Maintains database on the full regulated universe	Yes	Yes	Yes[a]	Yes	Yes	Yes
Time frame to inspect full regulated universe	Every 6 months	Risk-based at 80 percent of facilities each year	Every 8-10 years	Annually	About once every 2 years	Every 5-10 years

Source: GAO analysis of state data.

[a]Does not include nonpetroleum oils

While the six states have different requirements, they all collect data on their entire regulated universe rather than on only a limited portion of the total facilities, as EPA does. Except for Missouri, the states acquire this information by requiring tank owners to register their tanks and provide basic information on their facilities at the time they begin operations. The five states with a registration process require facility owners to notify the state of any changes to their facilities, including any changes in ownership, construction of new tanks, or alterations to existing tanks. Furthermore, officials from all five of these states said that inspectors check to ensure that they have current and accurate information on each facility at the time, or after, they conduct the inspection. Missouri does not use a registration system to identify facilities for inspection, but state officials told us that they obtain data on facilities by maintaining a strong relationship with tank installers and petroleum suppliers, and some of the facility owners voluntarily provide information to the state. According to a state official, Missouri does not need a registration system because the tank inspection program's strong presence in the field allows it to inspect all of the state's 5,500 regulated facilities every 6 months.

The type of information collected through the registration process varies by state but can include the facility's ownership, location, storage capacity, age, number of tanks, and the tanks' construction, as well as the facility's history, such as any past inspections, violations, enforcement actions, or reported discharges. According to state officials, the information they obtain enables them to implement and manage their storage tank programs effectively. In addition to requiring facilities to submit basic tank and facility information, New Jersey requires tank owners to develop and submit their plans for leak prevention and emergency response to the state for review prior to becoming operational.

All of the states that we contacted compile facility information into central databases that they can use to inspect a facility for the first time or to follow up on a prior inspection. In addition, all of these states use their databases to inspect their entire universe of regulated facilities, although the frequency of these inspections varies by state, as table 3 shows. Officials from Minnesota and New Jersey also stated that databases that capture the full regulated universe play an important role in the success of their inspection programs and that implementation would be difficult without these data. However, because of different reporting requirements, states may not have information on the full universe of SPCC-regulated facilities that EPA needs.

State Officials Reported That a Closer State-EPA Working Relationship Could Benefit the SPCC Program

The extent to which EPA regions coordinate with the states in identifying, targeting, and inspecting aboveground storage tank facilities, and ensuring compliance, depends on the individual region. Some regions we contacted told us they proactively contact the states as well as other federal and local agencies for information, while other regions told us they have varied or limited contact with the state tank programs in their region.

For example:

- Region 8 officials told us that they have two staff members who focus on building relationships with local fire departments and other first responders to identify potential SPCC facilities and target them for inspection. They often work with first responders when a spill occurs, and may conduct an SPCC inspection after the immediate remediation efforts are completed.

- A Region 1 official credited that region's success in identifying and targeting SPCC-regulated facilities for inspection largely to the region's close work with state institutions and the U.S. Coast Guard.

- Region 3 has a formal agreement—known as the Performance Partnership Agreement—with Maryland, Pennsylvania, and Virginia to coordinate their regulatory program activities, including the aboveground storage tank programs. According to officials from both the EPA regional office and Virginia, EPA routinely asks the state for a list of aboveground oil storage tank facilities that may be of concern relating to the SPCC and FRP regulations. In addition, EPA notifies Virginia state officials before conducting inspections, issuing administrative orders, and initiating litigation against facilities in that state. Finally, EPA Region 3 and Virginia officials try to coordinate inspections of facilities of interest to both the SPCC and the state's programs and in some cases conduct joint inspections, although these are limited because of the differences in the SPCC and state regulations.

- Region 5 officials told us that they often contact states in the region and have asked officials in these states for lists of facilities they recommend for inspections, invited those states with tank or oil programs to accompany them on inspections, and copy them on correspondence with facilities. Region 5 officials stated that they work more closely with states in the region that do not have programs similar to SPCC.

- Region 6 officials told us that they are in touch with the various state agencies in their region but relationships will vary and are dependent on the leadership and personnel of these agencies.

- Region 7 officials stated that they do not regularly communicate with the states in their region.

From the state perspective, officials in Florida, Minnesota, Missouri, New Jersey, and New Mexico reported varying degrees of communication with their respective EPA regional officials on coordinating activities, such as identifying and targeting facilities for inspection and conducting inspections. According to these state officials, this can range from occasional discussions to no contact at all. For example, New Jersey officials stated that they are in contact with their counterparts in EPA Region 2 and share information on their regulated universes and are invited by the region to participate in certain inspections. However, although Region 5 officials stated that they often contact all the states in their regions, including inviting those with tank programs to accompany them on inspections, Minnesota officials stated that they have little or no communication with EPA Region 5 aboveground storage tank officials. They stated that they do not receive advance notification of when EPA Region 5 plans to conduct SPCC inspections in their state and often learn about an EPA inspection only after it takes place, when the region copies the state on any compliance correspondence with the facility. In addition, a Florida official stated that the EPA region does not contact the state program about its SPCC program activities in the state, such as when it conducts inspections or training. Officials in several states said that further contact between their offices and EPA regions' SPCC programs could improve EPA's identification and targeting of SPCC-regulated facilities because the states have more detailed data on their regulated community and have established relationships with the facility owners in their states. For example, a Missouri official said that further coordination between the SPCC program in Region 7 and Missouri's inspection program could be useful to the SPCC program because the state maintains close ties with facility owners to be better aware of the regulated community.

Although EPA regions conduct outreach activities to educate facility owners on their responsibilities under the SPCC regulations, officials in several of the states we contacted told us that these efforts needed improvement. Several of these officials stated that they find facility owners are confused about the relationship between SPCC regulations and state regulations. For example, Missouri officials told us that facility owners want to comply with both state and SPCC regulations but they often do not because the difference between the two types of regulations is often confusing. Given this confusion, according to state officials, coordinating federal and state outreach activities—such as educating facility owners about SPCC and state regulations through seminars or

conferences—is important to provide the regulated community with more complete and comprehensive information. State officials told us that increased coordination by EPA regions with the states on outreach activities, such as educating facility owners on the SPCC program and state regulations, could benefit both the SPCC and state tank programs by making these efforts more comprehensive. For example, a Minnesota official told us that the state recently learned that EPA had held training sessions with facility owners in Minnesota after they had occurred and that the state would like EPA to contact them prior to any planned training for the regulated community so that information on state aboveground storage tank rules could be distributed at the same time. EPA Region 5 officials stated that the region has conducted workshops that included state oil pollution programs, such as Minnesota's, as well as other local and federal partners. Recently, however, training sessions in Minnesota were limited to those requested by trade groups.

State officials also noted that outreach efforts in their state programs have contributed to better compliance. According to state officials, working closely with facility owners maximizes compliance and minimizes the need for legal actions. For example, a Missouri official told us that the state program has between 10 and 50 active enforcement cases ongoing on any given day. However, he said the state has imposed penalties only five or six times over the last 20 years because working with facility owners helps to eliminate the need for formal penalties. Similarly, Florida tries to work collaboratively with facility owners to gain compliance. Florida's program is relatively decentralized; the state contracts with the counties to conduct inspections. A Florida state official told us that county-level inspectors are well equipped to identify violators and use their relationships to gain compliance because they live in the same communities they are inspecting.

Conclusions

Leaking aboveground storage tanks can contaminate soil and waterways and threaten human health and the environment before the leaks are identified and stopped. However, EPA has identified and inspected only a small portion of the more than 500,000 facilities it estimates are subject to the SPCC rule, and when it inspects these facilities, it often finds them out of compliance. EPA's current method of identifying facilities subject to the SPCC rule—through referrals, the *Yellow Pages*, and Internet searches—does not allow the agency to use its limited resources effectively to identify facilities most at risk of leaking oil. Without more comprehensive data on the universe of facilities that are subject to the SPCC rule, EPA cannot employ a risk-based approach to target its SPCC inspections to

those facilities that pose the greatest risks of oil spills into or upon U.S. navigable waters and adjoining shorelines. Similarly, incomplete information on the universe of SPCC facilities prevents EPA from determining whether and to what extent the SPCC program is achieving its goals. But even with the needed data, EPA will be unable to measure the program's success unless and until it develops reliable performance goals. While EPA may have forgone developing such measures because the data for them were unavailable, effective program management requires that the two aspects—data and measures—be developed in tandem.

EPA may have a number of options for filling this data gap. One such approach would be to initiate a facility registration program, similar to that of some states we contacted. While the details might vary, this approach would, in its basic form, require that facilities that meet the criteria of the SPCC rule report that fact to EPA, along with other basic facility and tank information. While this mechanism would likely involve some costs to both EPA and the individual facilities, it would also increase the agency's knowledge of the SPCC universe and allow it to better target its inspection resources on the basis of the relative risks posed by the facilities, which may outweigh the increased costs. There may also be other options available to EPA to expand its knowledge of the SPCC universe at a lower cost and that may be worth the agency exploring.

Greater coordination with states may also help EPA to fill its SPCC data gap. As noted, primarily through their registration processes, some states have what they consider to be very comprehensive data on the oil storage facilities that they regulate, including some that may be SPCC facilities. Either with or without a registration process or some other information-gathering mechanism, greater coordination with states that have inspection programs comparable to EPA's SPCC program could help to expand EPA's knowledge base on SPCC facilities and provide a more informed basis for targeting limited inspection resources. However, given the variation that we found in regional office-state interactions, without uniform guidance for EPA regional offices on how to better communicate and coordinate with states on SPCC-related issues, EPA may not be able to take full advantage of this opportunity to gain information that may be critical for achieving the SPCC program's goals.

Recommendations for Executive Action

To better identify and target SPCC facilities for inspection, we recommend that the Administrator of EPA direct the Office of Emergency Management to take the following two actions:

- analyze the costs and benefits of the options available to EPA for obtaining key data about the universe of SPCC-regulated facilities, including, among others, a tank registration program similar to those employed by some states, which would require tank owners to report to EPA, on a regular basis, facility information such as the number of facilities and tanks, their size, age, location, quality of construction, and methods of operation and

- in conjunction with states that have oil spill prevention programs, develop uniform guidance for EPA regional offices on how to better communicate and coordinate with those states on SPCC-related issues.

In addition, to assess the effectiveness of the SPCC program, we recommend that the Administrator, EPA, direct the Office of Emergency Management to complete, in a timely manner, the development of performance measures and obtain the data needed to determine the extent to which the program is achieving its goals of preventing and controlling oil spills.

Agency Comments and Our Evaluation

GAO provided EPA with a draft of this report for its review and comment. The agency stated that it generally agreed with the recommendations in the report and that the report provided a good, comprehensive picture of a portion of the oil spill program implemented by EPA's Office of Emergency Management. With regard to our recommendation that EPA finish developing performance measures and obtain the data needed to evaluate SPCC program effectiveness, the agency noted—as we acknowledge in the report—that EPA has already initiated work to develop such measures and that the feedback the report provides will help to further shape the agency's actions in this regard. Beyond agreeing with our other two recommendations, EPA did not comment on them.

EPA also provided technical comments on the draft report, which we have incorporated as appropriate. The full text of EPA's comments is included as appendix III.

As agreed with your offices, unless you publicly announce the contents of this report earlier, we plan no further distribution until 30 days from the report date. At that time, we will send copies to the Administrator, EPA, and other interested parties. We will also make copies available to others upon request. In addition, the report will be available at no charge on the GAO Web site at http://www.gao.gov

If you or your staff have any questions about this report, please contact me at (202) 512-3841 or stephensonj@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. Key contributors to this report are listed in appendix IV.

John B. Stephenson
Director, Natural Resources
and Environment

Appendix I: Objectives, Scope and Methodology

To determine how the Environmental Protection Agency (EPA) regions implement the Spill Prevention, Control, and Countermeasure (SPCC) program, we spoke with EPA headquarters on the overall management of the program, including the organizational structure, formulation and implementation of the SPCC rule and amendments, training of staff on the rule, funds allocated to the program, enforcement policy, and headquarters' interaction and coordination with the EPA regions that implement the program. To determine what data EPA officials have available to implement the SPCC program, we spoke with EPA region officials to determine the agency's data sources for identifying facilities and targeting them for inspection, and for enforcing SPCC regulations; how the agency uses the data; and the data's overall limitations. To obtain this information, we visited EPA Regions 3, 5, and 6 because they conducted the most inspections of all the EPA regions over a 3-year period and to achieve geographical diversity. We visited an SPCC facility in each of these regions with EPA officials to observe how SPCC inspectors conduct their work.

To obtain information on both how the program is implemented and what data sources the agency uses, we conducted a survey of SPCC program officials in all 10 EPA regions. In this survey, we sought to determine, among other things, how the regions identify and target facilities to inspect, the number of inspections each region has conducted in recent years, how much training an SPCC inspector receives, and the number of those inspected facilities that complied with SPCC regulations and, for those that did not comply, the number and type of enforcement actions taken. On November 30, 2006, we e-mailed the survey with a cover letter to officials in the 10 regions that were primarily responsible for day-to-day management and implementation of SPCC requirements. We also issued an addendum to each region on December 5, 2006, when it was brought to our attention that two questions in the survey regarding the training of inspection staff posed some confusion. Completed surveys were received by December 18, 2006. To supplement the survey and to elaborate on survey responses, in addition to the three regions we visited, we followed up by telephone with four regions—1, 2, 7, and 8. The calls helped us obtain more specific examples of how EPA regions identify and target SPCC facilities for inspection. A copy of our survey used in this review is in appendix II. It includes the aggregate responses to the survey and summaries of open-ended questions from all 10 EPA regions, when appropriate. The practical difficulties of conducting any survey may introduce errors, commonly referred to as nonsampling errors. For example, respondents may have difficulty in interpreting a particular question or may lack information necessary to provide a valid and reliable

response. In order to minimize these errors, we conducted a pretest of the draft survey with two EPA regions—4 and 8—over the telephone. We made changes to the content and format of the survey after this review based on the feedback we received.

To understand the nature of states' aboveground oil storage tank programs and how they are implemented, to identify potential options that might be applied to EPA's program, and to learn about any coordination between these states' programs and EPA's SPCC program, we first reviewed the *Aboveground Storage Tank Guide*, Vols. I and II, by the Thompson Publishing Group, which includes a comprehensive section on individual state aboveground storage tank regulations. We found that although many states regulate aboveground storage tanks in a piecemeal fashion through various state statutes, including adopted versions of uniform fire codes, such as the Uniform Fire Safety Standards, the International Fire Code, and the National Fire Protection Association's code, some states have developed comprehensive regulatory programs. After our analysis of this information, we spoke with the Association of State and Territorial Solid Waste Management Officials (ASTSWMO) and other state officials who recommended we speak to several states that they considered to have well-run aboveground storage tank programs. We then selected our states based on these recommendations, as well as geographical considerations such as whether the states were in diverse areas of the United States. We also limited our selection to one state each for a particular EPA region. We then interviewed officials from aboveground oil storage tank inspection programs in six states—Florida, Minnesota, Missouri, New Jersey, New Mexico, and Virginia.

We conducted this performance audit between August 2007 and April 2008 in accordance with generally accepted government auditing standards.[1] Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our

[1]Aspects of our review, including the survey of EPA regional offices, were conducted during our previous review of the amendments to the SPCC rule from June 2006 to July 2007.

findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Appendix II: Summary of EPA Regional Survey Results

The following information includes the aggregate responses and, when appropriate, summaries of answers to open-ended questions from our survey of 10 EPA regional offices on how the SPCC program is implemented and the data sources the agency uses. We also followed up with officials from several regional offices to clarify some of their survey responses.

Section 1–Facilities Inspected

1. Did your region document the number of facilities that were inspected for compliance with Spill Prevention, Control, and Countermeasures (SPCC) regulations in the following federal fiscal years?

	Yes	No
FY 2004	9	1
FY 2005	10	0
FY 2006	10	0

2. Can your region separately account for facilities inspected for compliance with SPCC and with FRP?

Yes	10
No	0 → **SKIP to question 11.**

3. How many facilities in your region were inspected for compliance with SPCC regulations in each of the following federal fiscal years? *Please count each facility once in a given year, regardless of the number of times it was inspected in that year.*

	Number of Facilities
FY 2004	1,067
FY 2005	1,167
FY 2006	1,125

4. Of the total number of facilities inspected in each of the following federal fiscal years how many if any were in full compliance with all SPCC requirements at the time of inspection?

	Number of Facilities
FY 2004	200
FY 2005	389
FY 2006	446

5. Of the total number of facilities inspected in each of the following federal fiscal years, how many were not in full compliance with all SPCC requirements at the time of inspection?

	Number of Facilities
FY 2004	503
FY 2005	650
FY 2006	664

6. Of the total number of facilities that were not in full compliance at the time of inspection, how many were issued an Expedited Settlement Agreement (ESA)? *For this question, please consider an ESA to be a mechanism used by EPA to address a facility's compliance shortcomings with reduced fines.*

	Number of Facilities
FY 2004	123
FY 2005	140
FY 2006	111

7. Of the total number of facilities that were not in full compliance at the time of inspection, against how many did EPA apply traditional enforcement mechanisms (that is, taking legal action)?

	Number of Facilities
FY 2004	32
FY 2005	28
FY 2006	21

8. Of the total number of facilities that were not in full compliance at the time of inspection in FY 2006, for how many facilities has EPA not determined the final enforcement action it will take?

	Number of Facilities
FY 2006	255[a]

[a]Number of facilities for which EPA had not determined final enforcement action as of December 2006.

Data Accuracy

Government auditing standards require that GAO assess the accuracy of data we use in our reports. Your responses to the following questions will be used to help us correctly interpret the information you have provided in questions 3–8.

9. Are there circumstances in which an inspected facility would be counted more than once in your responses to questions 3–8?

Yes	1 → **Please explain these circumstances in the space below.**
No	9 (3 elaborations)

We received one "yes" response to this question, from Region 7. Region 7 said that an inspection could be counted twice if it was entered into its data system with different facility ID numbers. We do not know how common it estimates this mistake to be or if there is any systematic reason that this mistake would be made.

We received three "no" response clarifications to this question, from Regions 1, 2, and 4. Region 2 stated that the term "inspections" for this survey is being interpreted as a Field Inspection, not SPCC Plan Reviews conducted without a Field Inspection and that this interpretation will reduce the amount of double counts for a facility. Region 4 stated that it conducted 168 inspections in fiscal year 2006 and that it counted 166 inspections total per the GAO survey instructions provided in Question 3, since two facilities were inspected twice in the same year. Region 1 stated "With exception, as Questions 4 and 5 are subsets of Question 3, and Questions 6 thru 8 are subsets of Question 5."

10. Are there circumstances in which an inspected facility <u>would not be counted at all</u> in your responses to questions 3–8?

Yes	4 → **Please explain these circumstances in the space below.**
No	6

We received four "yes" response elaborations from this question, from Regions 1, 3, 7, and 10. We received no elaborations from "no" responses.

EPA Region 1 clarified that legal actions were included in Question 8, rather than Question 7, per a follow-up conversation with Region 1 officials. These actions may be administrative orders or Clean Water Act Section 308 Information Requests. EPA Region 3 officials stated that in fiscal year 2006, they discontinued counting inspections that were conducted in conjunction with the Underground Injection Control program. This reduces their number of reported inspections. EPA Region 7 responded that an inspection would not be counted if it failed to enter it into the data system. Region 7 also stated that some inspections had not been counted because the inspector has not been able to complete the inspection reports due to extended family friendly leave. Region 10 clarified that facilities that were determined not to be subject to SPCC regulations were counted as an inspection, but were not counted in any other section of the report. In some cases, facilities that were found not to be subject may explain the difference between the number of inspections and those found to be in compliance or noncompliance.

Section 2–Number of Individuals Inspecting Facilities

We would like information on the individuals available to conduct inspections of facilities for compliance with SPCC. We would like to know who is trained to conduct inspections and the types of inspections these individuals have performed in fiscal year 2006. We understand that that not all inspectors may have completed the 40-hour SPCC/FRP specific training.

11. For federal fiscal year 2006, did your region document the number of individuals who inspected at least one facility for compliance with SPCC regulations?

Yes	10
No	0 → **SKIP to question 20.**

12. How many individuals inspected at least one facility for compliance with SPCC regulations in your region in FY 2006?

	Number of Individuals
FY 2006	95

13. Of the individuals who inspected at least one facility for compliance with SPCC regulations in FY 2006, how many completed each of the following types of SPCC training?

	Number of Individuals
Completed only Basic Inspector/Health and Safety training	5
Completed only 40-hour program specific SPCC/FRP training	0
Completed both Basic Inspector/Health and Safety and 40-hour program specific training	69
Completed only 8- hour or 12-hour program specific SPCC/FRP training……..	4
Completed both Basic Inspector/Health and Safety training and 8-hour or 12-hour program specific SPCC/FRP training……..	17
Completed none of the Basic Inspector/Health and Safety training nor any program specific SPCC/FRP training (40-, 12- or 8-hour training sessions)	0
Total (from question 12)	95

14. Of individuals who did <u>not</u> inspect at least one facility for compliance with SPCC regulations in FY 2006, how many completed each of the following types of SPCC training?

	Number of Individuals
Completed only Basic Inspector/Health and Safety training	5
Completed only 40-hour program specific SPCC/FRP training	0
Completed both Basic Inspector/Health and Safety and 40-hour program specific training	19
Completed only 8- hour or12-hour program specific SPCC/FRP training……...	2
Completed both Basic Inspector/Health and Safety training and 8-hour or 12-hour program specific SPCC/FRP training……..	25
Completed none of the Basic Inspector/Health and Safety training nor any program specific SPCC/FRP training (40-, 12- or 8-hour training sessions)	3
Total	54

15. Of the total number of individuals who inspected at least one facility in FY 2006, how many are employees of each of the following organizations? *The total should equal the number of individuals entered for question 12.*

	Number of Individuals
EPA Regional employees	75
Contractor/Grantee employees	20
Other (Please specify: _____)	0
Total (from question 12)	95

16. Of the total number of individuals who inspected at least one facility in FY 2006, how many conduct inspections for only SPCC/FRP regulations and how many conduct inspections for both SPCC/FRP and other environmental regulations? *The total should equal the number of individuals entered for question 12.*

	Number of Individuals
Conduct inspections for only SPCC/FRP regulations	72
Conduct inspections for both SPCC/FRP and other environmental regulations	23
Total (from question 12)	95

17. Of the total number of individuals who inspected at least one facility in FY 2006, how many spent the following fractions of their time on activities related to SPCC? *The total should equal the number of individuals entered for question 12. In calculating your responses, please consider all SPCC-related activities, including planning for inspections, conducting outreach to facilities, visiting facilities, and documenting inspection results.*

	Number of Individuals
Less than 25% of their time	63
Between 25% and 50% of their time	9
Between 50% and 75% of their time	5
More than 75% of their time	18
Total (from question 12)	95

Data Accuracy

Government auditing standards require that GAO assess the accuracy of data we use in our reports. Your responses to the following questions will be used to help us correctly interpret the information you have provided in questions 12–17.

18. Are there circumstances in which an inspector might be double-counted in your responses to questions 12–17?

Yes	0 → **Please explain these circumstances in the space below.**
No	10

19. Are there circumstances in which an inspector might be mistakenly excluded from your responses to questions 12–17?

Yes	2 → **Please explain these circumstances in the space below.**
No	8

We received "yes" responses and elaborations to this question from Region 3 and Region 7. Region 3 responded that "multimedia" inspectors who reside in the Office of Enforcement, Compliance, and Environmental Justice are not counted in the numbers presented here. They receive no compensation, nor are their inspections recorded by EPA headquarters. Region 7 responded that it did not include a contractor that conducted two multimedia inspections, which included SPCC, in answering Questions 13 and 14. Inspectors not involved in the SPCC program were not included in the response to Question 14.

Section 3–Selecting Facilities for Inspection

20. Does your region use written criteria to select facilities for inspection?

Yes	6 → **Please send us a copy of these criteria.**
No	4 → **SKIP to question 25**.

21. In what year did your region develop these criteria?

Region 1	Not Applicable
Region 2	2000
Region 3	2005
Region 4	2005
Region 5	Not Applicable
Region 6	1995
Region 7	Not Applicable
Region 8	2005
Region 9	2004
Region 10	Not Applicable

22. How often does your region re-evaluate these criteria?

Of the six regions that reported having written inspection criteria, four said that they evaluate their criteria at least annually (Regions 3, 4, 8, and 9). Region 6 stated that its criteria are evaluated regularly, as conditions warrant. Region 2 stated that evaluation of which facilities to target is an ongoing process, done informally among the three staff members involved.

23. What process did your region use to develop these criteria?

Regions briefly described processes that involve consulting a number of sources: staff, states, SPCC coordinators, etc., to set the priorities for targeting facilities. Region 4 said that formal mechanisms for targeting SPCC facilities have only been in place in recent years, but informally, the mechanisms have been in places for longer. Region 6 described the criteria used in its geographic information system (GIS) selection system.

24. What data do these criteria require in order to be used to select facilities for inspection?

The regions described a variety of data sources: National Response Center (NRC) spill reports, other spill data, previous SPCC inspection checklists, enforcement priorities, GIS mapping data, facility history, etc. Region 2 said that state data can be of some use, but they do not correspond exactly to SPCC data.

25. Does your region have a list of facilities that it planned to inspect in FY 2006?

Yes	8 → **Please submit a copy of this list.**
No	2 → **SKIP to question 30.**

26. How many facilities were on your region's originally planned list in federal fiscal year 2006?

Number of facilities: 718-818

27. How many of these facilities did your region actually inspect during federal fiscal year 2006?

Number of facilities: 607

28. What are the stages of the planning process that your region uses to select facilities for inspection?

Eight of 10 regions gave written responses to this question. Responses reflect a variety of priorities in targeting facilities, but some common priorities are present: need of the state and spill histories is mentioned by a few regions.

29. What sources of data or information does your region use at each of these stages?

Eight of 10 regions gave written responses to this question. Regions mention a variety of data sources: state data, Internet sites, and spill data. The responses generally do not tie specific data with specific stages in the facility targeting process.

30. In your region's decisions about which facilities to inspect for compliance with SPCC regulations, how important are each of the following criteria? *Please check one response in each row.*

	Very little Importance	Little Importance	Moderate Importance	Great Importance	Very Great Importance	No basis to judge
Region already responding to a spill at the facility	0	0	0	1	9	0
Facility has history of spills	0	0	0	1	9	0
Facility has large oil storage capacity	0	1	2	6	1	0
Facility is particularly close to a water body	0	0	1	4	5	0
Facility is particularly close to other sensitive environment	0	1	1	4	4	0
Regional focus on particular geographic area	0	0	3	4	3	0
Regional focus on particular industry or facility type	1	2	3	3	1	0
Region received referrals from federal, tribal, state, or local officials	0	0	0	2	8	0
Region received tips or complaints from the public	0	0	0	2	8	0

	Very little Importance	Little Importance	Moderate Importance	Great Importance	Very Great Importance	No basis to judge
Region received news reports suggesting non-compliance at a facility	0	1	2	4	3	0
Other (Please specify: _____ _____)	0	1	2	4	3	0

Section 4–Number of Facilities Regulated

31. Does your region have a database of the total number of facilities that are subject to compliance with SPCC regulations in your region?

Yes	0
No	10 → **SKIP to question 34.**

32. What is the source of these data?

Three regions gave written responses to this question. Regions 3, 4, and 6 responded, saying that they do not have data on the universe of SPCC-regulated facilities.

33. How accurately do these data capture the total number of facilities subject to SPCC regulations in your region?

Regions 3 and 6 gave responses to these questions. Both regions clarified that their databases do not fully capture the universe of regulated facilities. Region 6 said that it has found the general accuracy of its database to be less than 50 percent.

Section 5 – Number of Oil Spills

34. In federal fiscal year 2006, did your region use oil spill data from the U.S. Coast Guard's National Response Center to manage the SPCC program in your region?

Yes	9
No	1 → **SKIP to question 36.**

35. How accurately do the NRC data capture the total number of facilities subject to SPCC regulations in your region?

Nine out of 10 regions responded to this question. Regions listed the flaws of NRC data. NRC only includes spill incidence, rather than the SPCC universe, and it is not always possible to trace the spill to its source.

36. In federal fiscal year 2006, did your region use oil spill data from state databases to manage the SPCC program in your region?

Yes	2 → **Which states? (See Below)**
No	10 → **SKIP to question 38.**

37. How accurately do these state data capture the total number of facilities subject to SPCC regulations in your region?

Region 9: California. Region 9 says that California data are "Better than NRC, but still very little." Region 6: Texas and Oklahoma. Region 6 says that state databases "have not been designed for determining SPCC inventories. However, they may include locational attributes which help identify potential SPCC facilities."

38. In federal fiscal year 2006, did your region use oil spill data from other sources to manage the SPCC program in your region?

Yes	3 → **What sources?**
No	7 → **SKIP to question 40.**

39. How accurately does this data from other sources capture the total number of facilities subject to SPCC regulations in your region?

Regions 1, 2, and 10 were the only regions that used other data and responded to this question. These regions said that their other data sources were from states, and that these data sources do not capture the regulated facilities. They only track complaints or spills and not the regulated universe.

40. Can any of the spill data used in your region be broken out for particular industrial category in any particular year?

Yes	3 → **Which data?**
No	7 → **SKIP to question 42.**

41. Can any of the spill data used in your region be broken out for particular years?

Yes	6 → **Which data?**
No	4

Section 6– Coordination with State Oil Programs

We are interested in identifying the extent EPA regions cooperate with states on oil spill prevention-related activities and regulations. We plan to meet with officials in at least two states in order to describe how these states and EPA cooperate in evaluating and implementing SPCC requirements.

42. What is the contact information for oil spill prevention-related activities and regulations in each of the states in your region?

Contact information provided by the regions is not included.

State Name	Agency Name	Program Name	Contact Name	Phone Number	E-mail Address

43. Please describe the relevant oil spill prevention-related activities and regulations in each of the states in your region.

The answers to this open-ended question are not included.

State Name	Description of oil spill prevention-related activities and regulations

44. Do the states in your region have a system to register facilities that are subject to oil spill regulations?

A total of 16 states were reported by EPA regions as having a system to register facilities subject to oil spill regulations.

State Name	Yes	No	No basis to judge

Section 7–Regional Organization

45. In what month and year did the last reorganization that effected SPCC functions in your region take place?

Month:_____
Year: _____

The answers to this question are not included.

Section 8–Final Comments

46. Please provide any additional comments you'd like us to consider in our review.

The answers to this question are not included.

47. Please attach copies of each of the following when submitting your response to us:

1. List of facilities that the region inspected in fiscal year 2006, including the following information on each facility:

- Whether or not the facility was in full compliance with SPCC regulations at the time of inspection;
- Whether EPA issued the facility an ESA;
- Whether or not EPA has taken legal action against the facility; and
- The amount of fines, if any, levied against this facility

2. Written criteria used to select facilities for SPCC inspections (see question 20)

3. List of facilities that region planned to inspect in fiscal year 2006 (see question 25)

4. Documentation to support answers in Section 5 regarding oil spill databases, such as spreadsheets or descriptions of databases in which these data may be housed

5. An annotated organizational chart of your region explaining where all SPCC-related staff are located, including (but not limited to) inspectors, enforcement, data, and legal staff

The information received from the regions that GAO requested is not included.

Appendix III: Comments from the Environmental Protection Agency

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

APR 16 2008

OFFICE OF
SOLID WASTE AND
EMERGENCY RESPONSE

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441 G Street, N.W. Room 2075
Washington, D.C. 20548

Dear Mr. Stephenson:

Thank you for the opportunity to comment on the draft report entitled, "Aboveground Oil Storage Tanks: More Complete Facility Data Could Improve Implementation of EPA's Spill Prevention Program (GAO-08-482)." We appreciate the collegial working relationship and dialog with GAO as this report was developed.

Overall, we generally agree with the recommendations in the report to: (1) analyze the costs and benefits of the options for obtaining data on Spill Prevention, Countermeasure and Control (SPCC) regulated facilities, including, among others, a tank registration program, although we would also need to analyze whether we have the authority to implement a container registration program; (2) develop guidance for EPA regions on how to better coordinate with the states on SPCC issues; and (3) finish developing performance measures and obtain data to evaluate SPCC program effectiveness. As noted in this draft report, EPA has already initiated work in developing performance measures and the additional feedback provided will help us further shape our actions.

This report also provides a good, comprehensive picture of a portion of the oil spill program implemented by EPA's Office of Emergency Management (OEM). OEM strives to work effectively with its headquarters and regional office partners within the agency and with external stakeholders to protect public health and the environment from oil spills through prevention, preparedness, and response programs. EPA's Regional Offices work to cultivate relationships with state and local entities to carry out these programs. We appreciate GAO's efforts to accurately describe and document this challenging effort on behalf of headquarters and field personnel.

EPA requests that the report be modified to address several technical corrections and edits (see enclosure). We have also provided your staff with edits that address typographical errors. We offer additional description of the resource allocations between the Oil Spill Liability Trust Fund (OSLTF) and EPA for a more accurate characterization. Our regional offices also offer some additional details to better describe the relationship between the Regions and the States.

Again, we appreciate the opportunity to work with your team on this review and your consideration of technical corrections. If you have any other comments or questions about these corrections, please contact Deborah Dietrich, Director of the Office of Emergency Management at 202-564-8600.

Sincerely.

Susan Parker Bodine
Assistant Administrator

Enclosure

Appendix IV: GAO Contact and Staff Acknowledgments

GAO Contact

John B. Stephenson, (202) 512-3841, stephensonj@gao.gov.

Staff Acknowledgments

In addition to the individual named above, Vincent P. Price, Assistant Director; Kevin Bray; Mark Braza; Greg Carroll; Bernice H. Dawson; Mary Robison; and Carol Herrnstadt Shulman made key contributions to this report.

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