

Module 1: Overview of the Site Assessment Process Under CERCLA



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Course Overview

- ◆ **Describes the “WHAT”**
 - » Scope and activities conducted for preliminary assessment (PA) and site inspection (SI)
- ◆ **Explains the “WHY”**
 - » Statutes, regulations, and guidance
 - » HRS considerations
 - » Purpose of PA and SI
- ◆ **Provides opportunities to “PRACTICE”**
 - » Evaluating and scoring a site based on PA
 - » Evaluating and devising SI sampling strategies



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Notes



- ◆ **Describes the “WHAT”:** This course describes the scope of the preliminary assessment (PA) and site inspection (SI) and the specific activities conducted during the PA and SI. The course describes how to plan, implement and document both a PA and an SI.
- ◆ **Explains the “WHY”:** More importantly, this course describes why the PA and SI are conducted in the manner they are conducted. The course provides a detailed discussion of the statutory and regulatory underpinnings for the PA and SI, important PA and SI guidance that helps inform the process, and the important Hazard Ranking System (HRS) considerations that drive data collection and evaluation.
- ◆ **Provides opportunities to “PRACTICE”:** The course provides several opportunities for the participants to practice the concepts they learn in the course. The participants will be able to evaluate and score a site based on a PA conducted for a fictional site. The participants will also be able to evaluate and devise SI sampling strategies.

Course Objectives

◆ **By the end of this course, participants will be able to:**

- » Explain when, where, why and how site assessments are performed under CERCLA authority
- » Prepare for, conduct and report the results of a PA
- » Determine the need for, conduct, and report the results of an SI
- » Identify and use guidance, software and other tools to successfully meet the requirements for conducting PAs and SIs



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Overview of the PA/SI Webinar Series

- ◆ **First offering of this webinar series and includes 9 modules offered from June 30 through July 30, 2014**
- ◆ **Condensed version of the 3-day in-person training course**
- ◆ ***Intended Audience:* EPA Regional, state, tribal and contractor personnel, who support site investigation programs**
- ◆ **Webinar Series will apply the Quickscore software to an example PA in Modules 3 through 6**



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Receiving Credit and a Certificate

- ◆ **It is recommended that you take each webinar session in numerical order**
- ◆ **You must attend each session in order to receive credit for taking the course**
 - » Archived versions will be posted on <http://www.clu-in.org/live/archive/>
 - » If you cannot attend a session, you must complete the missed session within 2 months of the original scheduled date and submit an evaluation form for that missed module
- ◆ **Electronic certificates will be distributed after the entire series is complete to participants who have completed all nine modules**



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Agenda

| Module | Date |
|--|--|
| Module 1: Overview of the Site Assessment Process under CERCLA | Monday, June 30, 2014 1:00 p.m. to 3:00 p.m. Eastern |
| Module 2: Basics of Performing Site Assessments and Conducting the PA | Wednesday, July 2, 2014 1:00 p.m. to 3:00 p.m. Eastern |
| Module 3: Site Evaluation and Scoring Site Sources | Monday, July 7, 2014 1:00 p.m. to 3:00 p.m. Eastern |
| Module 4: PA Scoring Exercise: Groundwater Migration Pathway | Wednesday, July 9, 2014 1:00 p.m. to 3:00 p.m. Eastern |
| Module 5: PA Scoring Exercise: Surface Water Migration Pathway | Friday, July 11, 2014 1:00 p.m. to 3:00 p.m. Eastern |
| Module 6: PA Scoring Exercise: Soil Exposure and Air Migration Pathways | Monday, July 14, 2014 1:00 p.m. to 3:00 p.m. Eastern |
| Module 7: Conducting the SI, Overview of SI Strategies, and Site Sources | Monday, July 21, 2014 1:00 p.m. to 3:00 p.m. Eastern |
| Module 8: SI Sampling Strategies for Groundwater and Surface Water | Monday, July 28, 2014 1:00 p.m. to 3:00 p.m. Eastern |
| Module 9: SI Sampling Strategies for Soil and Air | Wednesday, July 30, 2014 1:00 p.m. to 3:00 p.m. Eastern |



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Course Information and Resources

- ◆ **Participant Manual**
- ◆ **Hazard Ranking System (HRS) Quickscore**
 - » Available at http://www.epa.gov/superfund/programs/npl_hrs/quickscore.htm
- ◆ **PA Guidance Manual**
- ◆ **SI Guidance Manual**



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Module Objectives

- ◆ **By the end of this module, participants will be able to:**
 - » Describe the legal framework for conducting response actions under CERCLA
 - » Determine if a CERCLA response is authorized for a specific release
 - » Explain the basic steps in the CERCLA response process
 - » Explain how sites are identified under CERCLA
 - » Describe the purpose and scope of different steps in the site assessment process
 - » Explain the roles and responsibilities of different parties in the site assessment process

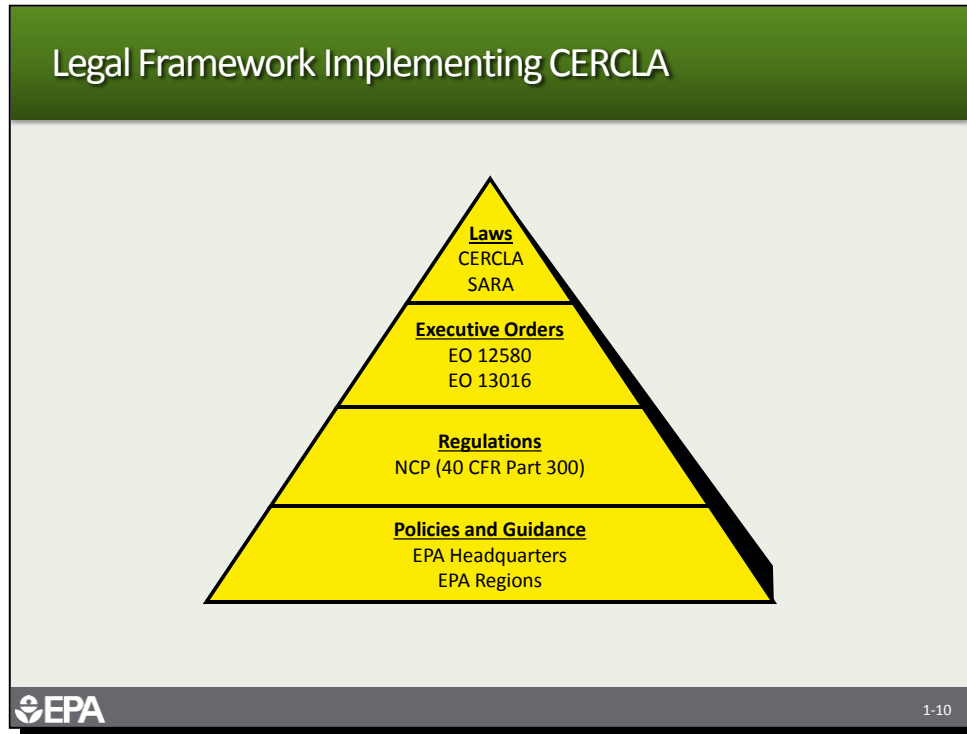


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CERCLA Statutory and Regulatory Background



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Notes



- ◆ **Laws:** The Superfund program was created by Congress with the enactment of CERCLA.
 - » **CERCLA:** Congress created the Superfund cleanup program with the enactment of CERCLA on December 11, 1980. CERCLA required the EPA, for the first time, to step beyond its traditional regulatory role and provide response to clean up hazardous waste sites.
 - » **SARA:** On October 17, 1986, Congress reauthorized CERCLA by enacting the Superfund Amendments and Reauthorization Act (SARA). SARA reflected EPA's experience in administering the complex Superfund program during its first six years and introduced many improvements in the existing program.
 - SARA stressed development and use of permanent remedies.
 - SARA helped answer the "how clean is clean" question at sites.
 - SARA also established new enforcement and settlement tools and provided for increased involvement of states in the Superfund program.

- » **Other amendments to CERCLA:** Congress amended CERCLA in 1996 and 2002. As part of the Omnibus Consolidated Appropriations Bill for Fiscal Year 1997, Congress enacted the Asset Conservation, Lender Liability, and Deposit Insurance Protection Act of 1996. The act includes lender and judiciary liability amendments to CERCLA and addresses the liability of involuntary acquisitions made by government entities. In 2002, Congress enacted the Small Business Liability Relief and Brownfields Revitalization Act (“Brownfields Act”) to provide certain relief for small businesses from liability under CERCLA, to provide financial assistance to Brownfields revitalization, to enhance state response programs and for other purposes.
- ◆ **Executive Orders:** CERCLA vested response powers in the President. Several presidential executive orders (E.O.) have delegated those authorities and other powers of the President under CERCLA to the EPA Administrator and heads of other Federal departments or agencies.
 - » E.O. 12580 and 13016: The President issued E.O. 12580 and 13016 to delegate his authorities to carry out various actions under CERCLA to the EPA, the U.S. Coast Guard (USCG), U.S. Department of Defense (DoD), U.S. Department of Energy (DOE) and other Federal agencies.
- ◆ **Regulations:** The National Contingency Plan (NCP) is the major regulatory framework that guides the Superfund response effort.
 - » **The National Contingency Plan:** The NCP is a comprehensive body of regulations set forth in Title 40 Code of Federal Regulations (CFR) Part 300 that outlines a step-by-step process for implementing Superfund responses and defines the roles and responsibilities of EPA, other Federal agencies, states, tribes, private parties and communities in responding to situations where hazardous substances are released into the environment.

The NCP also governs the process and responsibilities of parties responding to discharges of oil to navigable waters of the United States.

Appendix A to CFR Part 300 presents the requirements of the HRS.
- ◆ **Policies and guidance:** The EPA further clarifies its interpretation of CERCLA through policy and guidance documents. The EPA has issued numerous policy documents that specify operating procedures on Superfund topics such as risk assessments, remedy selection, remedial design and remedial action, redevelopment and post-construction completion. EPA program offices use the policies or procedures to outline the manner in which elements of the program are to be carried out.

CERCLA

- ◆ **Created to provide direct federal response authority to hazards posed by abandoned or uncontrolled hazardous waste sites**
- ◆ **Provides President with authority to respond to a release of:**
 - » A hazardous substance
 - » Any pollutant or contaminant that may present an imminent and substantial endangerment



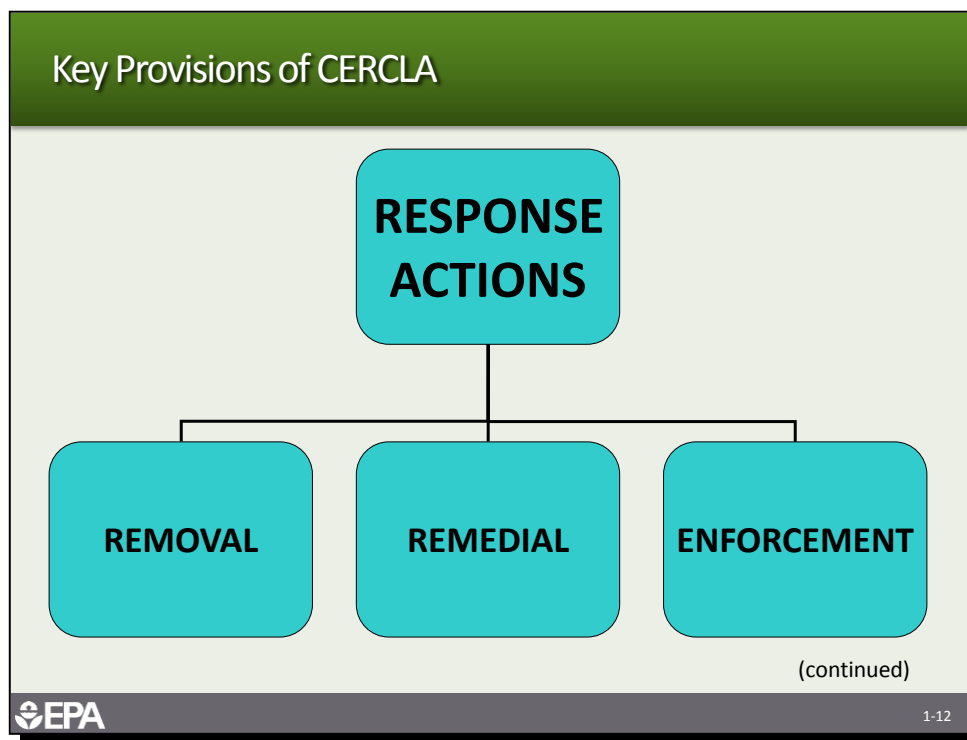
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- ◆ **Created to provide direct federal response authority to hazards posed by abandoned or uncontrolled hazardous waste sites:** CERCLA provides the federal government with unique and distinct authorities to take action in response to releases that threaten human health and the environment in the event responsible parties do not take prompt action. CERCLA enables direct federal authority to respond to a release or substantial threat of a release of a hazardous substance or any pollutant or contaminant.
- ◆ **Provides President with authority to respond to a release of:** Under CERCLA, “release” is broadly defined to include “any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposing into the environment.”
 - » **A hazardous substance:** A “hazardous substance” is broadly defined under CERCLA to include any substance the EPA has designated under specified sections of the Clean Air Act (CAA), the Clean Water Act (CWA) or the Toxic Substances Control Act (TSCA) and any hazardous waste as defined under the Resource Conservation and Recovery Act (RCRA). In addition, the EPA has the ability to identify additional substances as hazardous substances under CERCLA.

- » **Any pollutant or contaminant that may present an imminent and substantial endangerment:** Under CERCLA, the phrase “pollutant or contaminant” is defined to include “any element, substance, compound or mixture, including disease-causing agents, which after release into the environment and upon exposure, ingestion, inhalation or assimilation into any organism, whether directly from the environment or indirectly by ingestion through food chains, will or may reasonably be anticipated to cause death, disease, behavioral abnormalities, cancer, genetic mutation, physiological malfunctions or physical deformations, in such organisms or their offspring.”



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- ◆ **Authorizes three types of response actions:** CERCLA authorizes the President to undertake three types of responses to the release of a hazardous substance or any pollutant or contaminant: CERCLA defines “response” or “respond” to include removal actions, remedial actions and enforcement activities related to removal or remedial actions.
 - » **Removal:** A removal action is generally defined as a short-term action designed to stabilize or clean up a hazardous waste site that poses an immediate threat to human health or the environment. Removal actions also may be conducted to respond to accidental releases of hazardous substances. In addition, removal actions may be taken to abate short-term threats at a site and to facilitate a long-term remedial response.
 - » **Remedial:** Remedial actions are used to respond to long-term and chronic releases. Remedial actions usually are more costly and are intended to achieve a permanent solution that mitigates risk to human health and the environment.
 - » **Enforcement:** CERCLA provides the President with enforcement authorities to obtain consensual settlement or to compel potentially responsible parties (PRP) to implement removal or remedial actions at sites where a release of a hazardous substance occurred and where the parties are liable. CERCLA also provides authority to seek reimbursement from responsible parties when the Agency has spent trust fund monies to finance removal or remedial actions.

Key Provisions of CERCLA

- ◆ **Created a Hazardous Substance Trust Fund**
- ◆ **Holds responsible parties liable for cleanup and other costs**
 - » Natural resource damages
- ◆ **Inventories and prioritizes hazardous waste sites for cleanup**
 - » Establishes the NPL

(continued)



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- ◆ **Created a Hazardous Substance Trust Fund:** CERCLA established a Hazardous Substance Trust Fund to pay for responses by the Federal government to releases of hazardous substances in cases when the PRPs cannot be found or are unable to pay for the response.

The original amount of the trust fund was \$1.6 billion in 1980 and increased to \$8.5 billion in 1986. The fund was financed primarily through taxes on crude oil and 42 commercially used chemicals. Since 1990, the tax has not been reauthorized, and cost recovery and general revenues voted each year by Congress support the Superfund program.

- ◆ **Holds responsible parties liable for cleanup and other costs, such as natural resource damages:** CERCLA provides the President with enforcement authorities and unique provisions imposing strict liability on parties deemed under the statute to be responsible for releases, requiring them to conduct or pay for the cleanup actions. In addition, the statute also provides for assessment and restoration of natural resources that have been injured by a hazardous substance release or response.
- ◆ **Inventories and prioritizes hazardous waste sites for cleanup:** CERCLA required the President to amend the NCP with respect to implementing response actions authorized under the law. CERCLA specifically directed that the President develop criteria for setting priorities among releases throughout the United States for taking remedial action and removal action (taking into account the potential urgency of the action).

- » **Establishes the NPL:** The NPL is a list of the highest priority sites where releases of hazardous substances have occurred in the United States. Only sites on the NPL are eligible for trust fund-financed remedial actions.

Key Provisions of CERCLA

- ◆ Encourages participation of states and tribal governments in response actions
- ◆ Provides opportunities for public involvement
- ◆ Advances scientific and technological capabilities for cleaning up hazardous waste sites



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Notes



- ◆ **Encourages participation of states and tribal governments in response actions:** CERCLA requires that the EPA coordinate with states when the Federal government leads or oversees the response. Various provisions of CERCLA identify specific roles and responsibilities of states and qualified tribal governments during implementation of a response action.
- ◆ **Provides opportunities for public involvement:** CERCLA and the NCP require that the public be informed about the progress of response actions and to participate and provide input in decisions about the response actions.
- ◆ **Advances scientific and technological capabilities for cleaning up hazardous waste sites:** When CERCLA was enacted, little information was available about the investigation and cleanup of hazardous waste sites. CERCLA provides for research and development of scientific and technical capabilities in all aspects of hazardous waste management, treatment and disposal. For example, under EPA's Superfund Innovative Technology Evaluation (SITE) program, the EPA has supported development, testing and implementation of technologies that provide faster, better or more cost-effective cleanups at Superfund sites than did previously available methods. Overall, more than 100 technologies have been successfully demonstrated under the SITE program. Another example is EPA's Technology Innovation Program (TIP) which advocates more effective, less costly approaches by government and industry to assess and clean up contaminated waste sites, soil and groundwater, such as EPA's Triad approach to decision-making for hazardous waste sites.

Determining if a Response is Authorized

◆ Key definitions used in deciding whether a response is allowed under CERCLA:

- » “Release”
- » “Threatened release”
- » “Hazardous substance”
- » “Facility”



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◆ Key definitions used in deciding whether a response is allowed under CERCLA: The following definitions are crucial to determining whether a response is triggered under CERCLA or CWA or Oil Pollution Act (OPA) authorities:

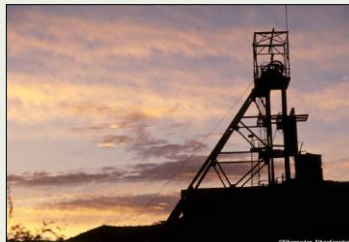
- » **“Release:”** “Release” is defined under CERCLA Section 101 (22). The term can mean spilling, pumping, leaking, pouring, emitting, discharging or disposing into the environment. In addition, a release can be continuous over time and includes leaking from tanks, pipelines and drums; leaching into soil or ground water; fugitive dust; and surface runoff from a site.
- » **“Threatened release:”** “Threatened release” is not further defined in CERCLA. However, the definition of release in the NCP states that, “For the purposes of the NCP, release also means threat of release.” It is left to case law to identify the site conditions or situations that constitute a threat of release. Some conditions or situations that have been found to constitute such a threat are:
 - The owners lack of expertise in handling waste
 - Hazardous substances are stored in deteriorating drums
 - The presence of waste oil and hazardous substances in open pits near a river

- » **“Hazardous substance:”** Under CERCLA, a “hazardous substance” is defined in several statutes and regulations, including various sections of CERCLA and CWA and OPA, Section 3001 of the Solid Waste Disposal Act, Section 7 of TSCA, Section 112 of the CAA, 40 CFR 302.4 and 40 CFR 300.5. Mixtures of hazardous and nonhazardous substances are considered “hazardous substances.” Under CERCLA, petroleum, crude oil and natural gas are not defined as hazardous substances but can become hazardous substances when contaminated with hazardous substances through use.

- » **“Facility:”** “Facility” is defined under CERCLA Section 101(9) to mean a site or property, but also includes buildings or other structures, including pipes, and containers such as barrels and tanks, wherever the contaminant has come to be located. A facility may extend beyond property lines.

Releases That Are Not Addressed Under CERCLA

- ◆ **Petroleum, crude oil and synthetic or natural gas**
- ◆ **Federally permitted**
- ◆ **Recycling transactions**
- ◆ **Activities listed in CERCLA § 104(a)(3)**



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- ◆ **Petroleum, crude oil and synthetic or natural gas:** Congress excluded petroleum, crude oil, natural gas and synthetic gas from the definitions of “hazardous substance” and “pollutant or contaminant” set forth under CERCLA. Therefore, releases of only petroleum, crude oil, natural gas or synthetic gas into the environment do not trigger CERCLA response authorities, although the releases may be regulated under another environmental statute, such as OPA.
- ◆ **Federally permitted:** Certain releases, such as the discharge of pollutants in compliance with a National Pollutant Discharge Elimination System (NPDES) permit under the CWA, qualify as a “Federally permitted release” under CERCLA § 101(10). Although the EPA has full response authority under CERCLA with respect to Federally permitted releases, the permittee is not liable for cleanup costs related to these releases.
- ◆ **Recycling transactions:** On November 29, 1999 a bill amending the Superfund statute providing liability exemptions for certain “recycling transactions” was signed into law. The new CERCLA amendment narrowed the scope of arranger and transporter liability by excluding recycling transactions that meet the standards set forth in the amendment. A new Section 127 was added entitled “Recycling Transactions.” Under Section 127, any person who “arranged for recycling of recyclable material” is exempt from liability under CERCLA sections 107(a)(3) and (4) with respect to such materials. Section 127(b) of the amendment defines “recyclable material” under CERCLA to include the following materials: scrap paper; scrap plastic; scrap glass; scrap textiles; scrap rubber (other than whole tires); scrap metal; and spent lead-acid, nickel-cadmium and other spent batteries. “Recyclable material” specifically includes minor amounts of material adhering to the scrap, but does not include items containing greater

than 50 parts per million PCBs. The definition of “recyclable material” does not include “shipping containers of a capacity from 30 liters to 3,000 liters whether intact or not, having any hazardous substance (but not metal bits and pieces or hazardous substances that form an integral part of the container) contained in or adhering thereto.” The practical effect of this “container exception” is that 55-gallon drums containing residues of non-metal hazardous substances would still give rise to CERCLA liability, while drums that are empty or contain only “metal bits and pieces” would qualify for the recycling exemption.

- ◆ **Activities listed in CERCLA § 104(a)(3):** Congress generally disallows use of the trust fund to finance federal responses to releases:
 - » Of naturally occurring substances, such as radon, from locations where they usually are found
 - » From products that are part of residential, business or community structures and that result in exposure within those structures (such as asbestos)
 - » Into public or private drinking water supplies as a result of the deterioration of pipes (such as leaching of lead)

Releases That Are Not Addressed Under CERCLA

◆ Activities excluded from definition of “release:”

- » Workplace exposures
- » Vehicular engine exhausts
- » Certain radioactive contamination
- » “Normal” application of fertilizer



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- ◆ **Activities excluded from definition of “release”:** Several types of activities are excluded from the definition of the term “release” in CERCLA § 101(22) and therefore are not subject to Superfund response actions. These activities include:

- » Workplace exposures (covered by the Occupational Safety and Health Act [OSHA])
- » Vehicular engine exhausts
- » Certain radioactive contamination covered by others laws: A limited category of radioactive materials is excluded from CERCLA consideration. They include (1) releases from a nuclear facility licensed by the Nuclear Regulatory Commission (NRC) and covered under NRC financial protection provisions, and (2) releases from one of 17 uranium tailings sites specifically designated in the Uranium Mill Tailings Radiation Control Act of 1978 (UMTRCA). It is Agency policy not to list releases of radioactive materials from facilities with a current license issued by the NRC (e.g., certain medical facilities, manufacturing plants, research laboratories). CERCLA § 101(22) excludes a limited category of radioactive materials from the statutory definition of “release,” making them ineligible for CERCLA response or the NPL. They include (1) releases of source (uranium or thorium, or any combination of the two, in any physical or chemical form), by-product (any radioactive material that was made radioactive by exposure to radiation from the process of using or producing special nuclear material), or special nuclear material (plutonium, uranium-233, enriched uranium-233 or -235, or any material that the NRC determines to be special nuclear material (not including source material) subject to section 170 of the Atomic Energy Act; and (2) any release of

source, by-products, or special nuclear material from any processing site specifically designated under UMTRCA. The Agency also exempted (1) releases of naturally occurring radionuclides from large generally undisturbed land holdings, such as golf courses and parks; (2) release of radionuclides naturally occurring from the disturbance of large areas of land for purposes other than mining, such as farming or building construction; (3) releases of radionuclides from the dumping of coal and coal ash at utility and industrial facilities with coal-fired boilers; and (4) radionuclide releases to all media from coal and coal ash piles at utility and industrial facilities with coal-fired boilers.

- » “Normal” application of fertilizer. Normal application is if the pesticides were applied in accordance with the label. EPA policy indicates that a site can be listed on the NPL if **documentation exists** to prove that the pesticides were applied in a manner that is inconsistent with the label or if the pesticide contamination resulted from leaks, spills or improper disposal. An example of improper disposal is if pesticides are found at locations where they typically would not be found like in a landfill and the surrounding areas were not treated with pesticides. Another such example is if pesticide contamination is detected at levels that far exceed normal application like an order of magnitude or more higher.

Identifying the Lead Agency for the Response

- ◆ **The NCP specifies the lead agency responsible for planning and implementing a response action under CERCLA**
- ◆ **Lead agencies may include:**
 - » EPA, USCG, other federal agencies, states and Indian tribes
- ◆ **On-Scene Coordinators (OSC) and Remedial Project Managers (RPM) are federal officials designated by NCP to coordinate and direct removal or remedial responses**



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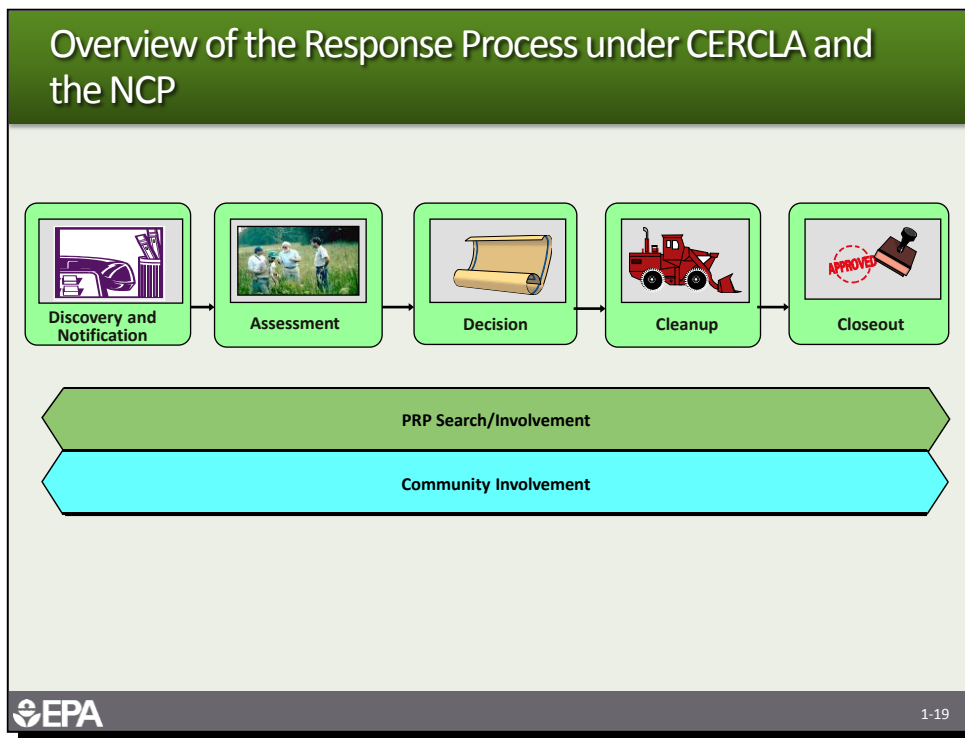
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- ◆ **The NCP specifies the lead agency responsible for planning and implementing a response action under CERCLA:** Subpart B of the NCP discusses the general organizational concepts and National Response System for implementing response actions. Subpart B also identifies duties of the President that are delegated to federal agencies.
- ◆ **Lead agencies may include:** Section 300.5 of the NCP defines the lead agency and support agency. The lead agency provides the On-Scene Coordinator (OSC) or Remedial Project Manager (RPM) to plan and implement response actions under the NCP. The EPA, the USCG, another federal agency or a state operating pursuant to a contract, cooperative agreement, or Superfund memorandum of agreement may serve as the lead agency for a response action. The lead agency will consult with the support agency, if one exists, throughout the response process.

The support agency means the agency or agencies that furnish necessary data to the lead agency, review response data and documents, and provide other assistance as requested by the OSC or RPM.
- ◆ **OSCs and RPMs are federal officials designated by NCP to coordinate and direct removal or remedial responses:** The definitions of an OSC and RPM are in 40 CFR 300.5. The NCP identifies an OSC as the federal official predesignated by the EPA or USCG to coordinate and direct responses under the CWA or OPA, or the government official designated by the lead agency to coordinate and direct removal actions under CERCLA. An RPM means the official designated by the lead agency to coordinate, monitor, or direct remedial or other response actions under CERCLA.

Section 300.120 of the NCP specifically identifies the duties and responsibilities of OSCs and RPMs and the responsibilities for lead agencies to provide OSCs and RPMs.



Notes



- ◆ **Overview of the response process under CERCLA and the NCP:** Although there are differences in types of responses and circumstances presented by each site, the steps to be taken to identify the site, assess the extent of contamination, achieve cleanup and close out a site follow a general framework established by the NCP. In addition, enforcement and public involvement activities occur throughout the response action.

The basic steps in the response process are:

- » Discovery and notification
 - » Assessment
 - » Decision
 - » Cleanup
 - » Closeout
- ◆ **Two paths:** The Superfund program has two primary focuses: the emergency response program and the long-term cleanup of contaminated sites.

Application of CERCLA at Federal Facilities

- ◆ **President's response authority has been delegated to federal agencies**
- ◆ **Cleanups must be consistent with requirements of the NCP**
 - » Special timetables and requirements apply
- ◆ **Trust fund monies cannot be spent at federal facilities**



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Notes

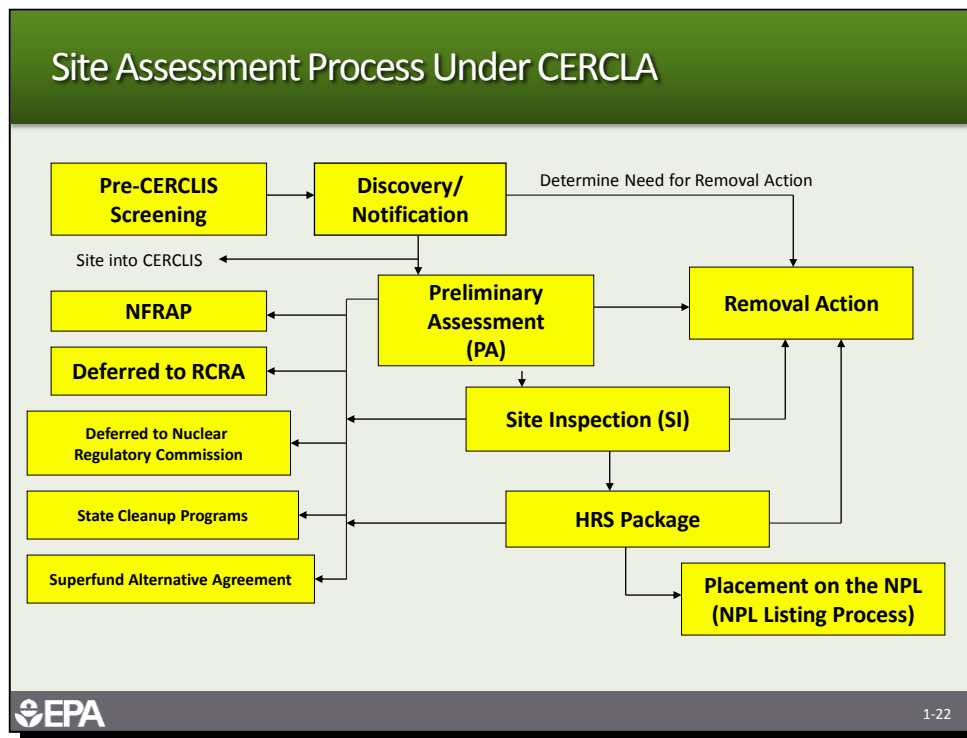


- ◆ **President's response authority has been delegated to Federal agencies:** E.O. 12580, *Superfund Implementation*, delegates the President's authorities to various heads of federal agencies. E.O. 12580 delegates most response authorities to the EPA and the USCG. However, authority to address releases at federal facilities is generally delegated to the head of the federal agency with jurisdiction over the federal facility. E.O. 12580 was amended in 1996 by E.O. 13016, which delegated certain CERCLA abatement and settlement authorities to other federal agencies.
- ◆ **Cleanups must be consistent with requirements of the NCP:** Subject to the exceptions in § 120(a)(3), federal agencies must comply with all rules, guidelines, regulations and criteria related to removal and remedial actions and cannot adopt guidelines inconsistent with those established by the EPA Administrator.
 - » **Special timetables and requirements apply:** Section 120 of CERCLA is devoted to federal facilities and established several special requirements and timetables on assessment and implementation of response activities.
- ◆ **Trust fund monies cannot be spent at federal facilities:** Section 111(e) of CERCLA precludes use of the trust fund to finance remedial actions at federal facilities.

Site Assessment Process Under CERCLA



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Notes



- ◆ **Site Assessment Process under CERCLA:** The graphic above depicts the site assessment process established under section 105 of CERCLA and identifies specific phases as set forth by the NCP.
 - » **Pre-CERCLIS Screening:** Pre-CERCLIS screening is conducted to determine if a site is eligible under CERCLA. The screening step is designed to keep sites not eligible under CERCLA (for example, the site has no hazardous substances, pollutants or contaminants defined under CERCLA and the NCP) from being placed into the CERCLIS database and having to go through the site assessment process.
 - » **Discovery/Notification:** Methods for discovering releases subject to CERCLA response authorities are set forth at 40 CFR 300.405.
 - » **Preliminary Assessment (PA):** Requirements for a remedial PA are set forth in 40 CFR 300.420(b). A PA must be performed by the lead agency for every site included in the CERCLA Information System (CERCLIS). The PA must precede the SI work plan. A preliminary HRS score should be calculated using PA information. The lead agency shall perform a removal action if a remedial PA indicates that such action is warranted.
 - » **Site Inspection (SI):** Requirements for a remedial SI are set forth in 40 CFR 300.420(c). The lead agency shall perform a removal action if a remedial SI indicates that such action is warranted.

- » **Hazard Ranking System (HRS) Package and National Priority List (NPL) Listing Process:** Requirements for establishing remedial priorities and methods for determining eligibility for the NPL (including the HRS) are set forth in 40 CFR 300.425.
- » **No Further Remedial Action Planned (NFRAP):** A NFRAP determination is made by the EPA for those sites not recommended for placement on the NPL. A NFRAP recommendation drops the site from further Federal Superfund consideration; however the removal program may continue to address threats and any site may be reassessed if new information becomes available.
- » **Deferred to RCRA:** A site can also be deferred to the Resource Conservation and Recovery Act (RCRA) program.
- » **Deferred to Nuclear Regulatory Commission:** A site can also be deferred to the Nuclear Regulatory Commission.
- » **State Cleanup Programs:** The site can be remediated under a formal state deferral agreement and entered into the State Cleanup Program.
- » **Superfund Alternative Agreement:** The site is being remediated under a Superfund Alternative Agreement.

Pre-CERCLIS Screening

◆ Benefits

- » Cost effective method of determining if a site should be entered into CERCLIS
- » Prevents unnecessary entry of sites into CERCLIS
- » Focuses site assessment resources on sites that should be in CERCLIS

◆ Can involve limited and focused sampling



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Notes



- ◆ **Benefits:** There are several benefits to pre-CERCLIS screening. First, it is a cost effective method of determining if a site should be entered into CERCLIS. The evaluation is usually conducted based on existing information and the reporting is limited to completion of the pre-CERCLIS screening checklist. Second, it prevents unnecessary entry of sites into CERCLIS. Before pre-CERCLIS was conducted, many sites were entered into CERCLIS in duplicate or even when they were not eligible for response under CERCLA. Finally, pre-CERCLIS screening helps the EPA to focus its site assessment resources on sites that are eligible for CERCLA response, rather than conducting preliminary assessments or site inspections on sites that are not eligible for a CERCLA response. A copy of the Pre-CERCLIS Screening Assessment Checklist/Decision Form is located at the end of Module 3.
- ◆ **Can involve limited and focused sampling:** In some Regions, limited and focused sampling can be conducted as part of pre-CERCLIS screening. The sampling is aimed at providing answers to the screening questions.

Pre-CERCLIS Screening Questions

- ◆ **Is site currently in CERCLIS under another name or has it been archived in CERCLIS?**
- ◆ **Is the site or some contaminants subject to limitations under CERCLA?**
- ◆ **Is a State or Tribal program in the final cleanup phase at the site?**
- ◆ **Is the hazardous substance release subject to a statutory exclusion?**

(continued)



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Notes



- ◆ **Is site currently in CERCLIS under another name or has it been archived in CERCLIS:** The pre-CERCLIS screening evaluation would determine if the site is already in CERCLIS under a different name or whether it has been archived in CERCLIS under its current name or a different name. If the site is archived, then the screener would determine if any new data has been generated that might change its status.
- ◆ **Is the site or some contaminants subject to limitations under CERCLA:** This includes cases where the release is subject to the three statutory limitations under CERCLA:
 - » The release is a naturally occurring substance in its unaltered form, or altered solely through natural processes or phenomena, from a location where it is naturally found
 - » The release is from products that are part of the structure of, and result in exposure within, residential buildings or business or community structures
 - » The release is into private or public drinking water supplies due to deterioration of the system from ordinary use
- ◆ **Is a State or Tribal program in the final cleanup phase at the site:** The investigator should determine if another program, such as the Brownfields or State voluntary cleanup program, is actively involved at the site. EPA will defer entry of such a site into CERCLIS until after the actions under the other program are complete, and then assess the adequacy of the actions to determine if the site should be entered into CERCLIS.

- ◆ **Is the hazardous substance release subject to a statutory exclusion:** The pre-CERLIS screening should determine if any statutory exclusions, such as the petroleum exclusion, applies to the hazardous substance release at the site.

Pre-CERCLIS Screening Questions

- ◆ **Is the hazardous substance release at the site deferred by policy?**
- ◆ **Is site data sufficient to determine CERCLIS entry?**
- ◆ **Is there documentation that clearly demonstrates that there is no potential for a release that could have an adverse effect on human health or the environment?**



1-25

Notes



- ◆ **Is the hazardous substance release deferred by policy:** If the site is being addressed by another program, such as the RCRA Subtitle C corrective action, then it will be deferred from the NPL and will not be entered into CERCLIS.
- ◆ **Is site data insufficient to determine CERCLIS entry:** If site data is not sufficient or is unreliable to determine CERCLIS entry, then additional data collection may be necessary. Best professional judgment should be used in cases where it is not feasible to obtain additional data.
- ◆ **Is there documentation that clearly demonstrates that there is no potential for a release that could have an adverse effect on human health or the environment:** A site should not be entered into CERCLIS if there is documentation that shows there is not potential for a release that could adversely impact human health or the environment. Such documentation includes (1) data equivalent to RI data that shows ARARs are not exceeded, (2) removal action that addresses all sources and releases, (3) reports that show no release of a hazardous substance has occurred, and (4) a completed EPA risk assessment showing no risk.

Site Discovery

◆ CERCLA and EPCRA establish:

- » Requirements for persons in charge of a facility or vessel to report the release of hazardous substances above reportable quantities (RQ)
- » Penalties for failure to report



(continued)



1-26

Notes



- ◆ **CERCLA and EPCRA establish:** Section 103 of CERCLA and § 304 of Emergency Planning and Community Right-to-Know Act (EPCRA) establish requirements for persons in charge of a facility or vessel to report the release of hazardous substances and extremely hazardous substances into the environment. CERCLA § 103(a) requires that any person who knows of a release of a hazardous substance into the environment in quantities equal or greater than the reportable quantities (RQ) must notify the Federal government of that release. Under § 304 of EPCRA, facilities are required to report releases of hazardous substances or extremely hazardous substances (EHS) which are amounts equal to or greater than the RQ for substances. Under EPCRA, in the event that there is a reportable release of an EHS, a notification must be made to the State Emergency Response Commission (SERC), and the Local Emergency Planning Committee (LEPC) affected by the release.
 - » **Requirements for persons in charge of a facility or vessel to report the release of hazardous substances above RQs:** Releases are reported to the National Response Center (NRC). Depending on the substance and location of the release, the NRC relays the information to the predesignated OSC within the EPA or the USCG. These reporting requirements serve as a trigger for informing the government of a release.
 - » **Penalties for failure to report:** Section 103(b) and 40 CFR 302.7 set forth penalties for failure to notify the NRC of a reportable release. Failure to report such releases can result in fines or imprisonment, or both under § 103(b) of CERCLA.

Site Discovery

◆ Other methods include:

- » Inspections by Federal or state authorities
- » Inventory or survey projects
- » Investigation or reporting by the media
- » Citizen's petitions



1-27

Notes



◆ Other methods include:

- » **Inspections by Federal or state authorities:** Discovery of a release also can occur during inspection of a facility or site, performed by Federal or state authorities.
- » **Inventory or survey projects:** Federal and state authorities also periodically conduct specific inventory or survey projects that focus on identifying hazardous waste sites that might pose a threat to public health or welfare or the environment.
- » **Investigation or reporting by the media:** In some cases, discovery can occur through the media, such as investigative reporters who identify suspicious activities in an area.
- » **Citizen's petitions:** Section 105(d) of CERCLA provides the public with an opportunity to formally petition the Federal government to conduct a PA. By sending in a PA petition, persons can notify the EPA of suspected environmental problems that may directly affect them, thus identifying sites that may otherwise remain unknown. EPA has issued guidance and a form for use in submitting a petition. A PA petition is generally sent to the EPA Regional Administrator covering the location of the site. However, if the site is located on Federal land, the petition should be sent to the Federal agency with jurisdiction over the land. EPA is required to respond to a citizen's petition within 1 year of receiving the petition.

PA

- ◆ Is the second phase in the site assessment process
- ◆ Provides initial analysis of existing information
- ◆ Culminates in a brief report with formal recommendations

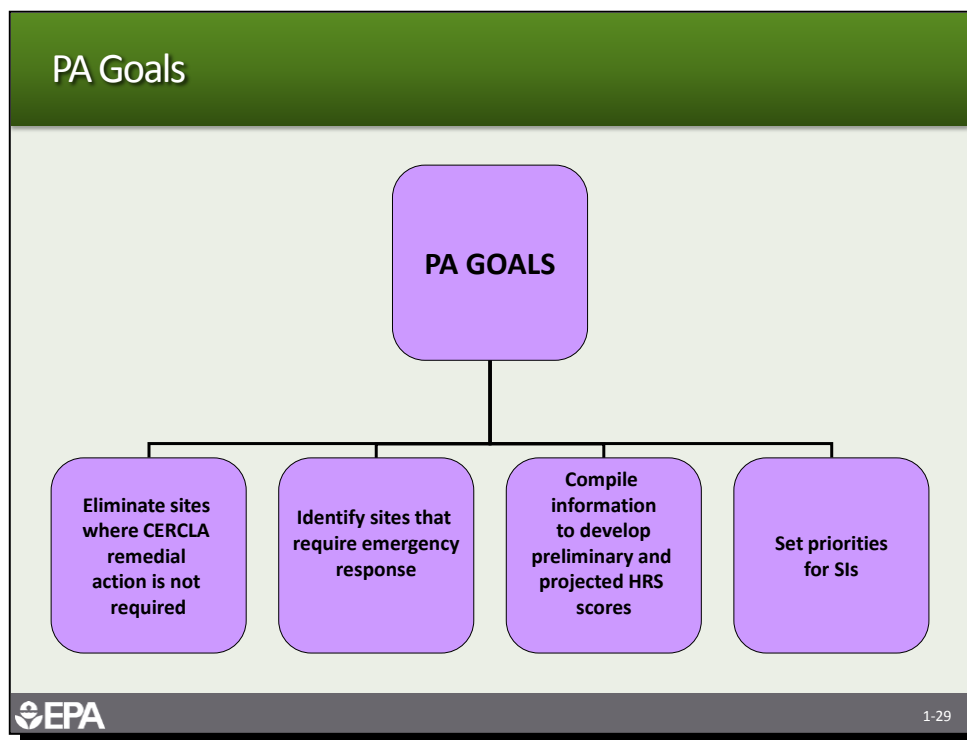


1-28

Notes



- ◆ **Is the second phase in the site assessment process:** The PA is the second phase in the process of determining whether a site is releasing, or has the potential to release, hazardous substances, pollutants or contaminants into the environment and whether it requires response action that is authorized by CERCLA.
- ◆ **Provides initial analysis of existing information:** A PA is a quick, low cost, initial analysis of existing information to determine if a release of hazardous substances may be serious enough to require additional investigation or action. During the PA the site investigator compiles and evaluates available information about a site and its surrounding environment, including information on potential waste sources, migration pathways and receptors. In addition to the record search, the PA may also include a site reconnaissance.
- ◆ **Culminates in a brief report with formal recommendations:** While the PA does attempt to establish whether the site has the potential to adversely affect the environment, it is not intended to determine the exact magnitude of the release, or whether the size of the release is significant.



Notes



- ◆ **Eliminate sites where CERCLA remedial action is not required:** The first goal of the PA is to screen out those sites that are ineligible for CERCLA remedial response, pose no threat to public health or the environment, or where no further action under the remedial program is warranted.
- ◆ **Identify sites that require emergency response:** The PA can determine if the site, or a portion of it, may qualify for removal action, thereby warranting referral to the removal program.
- ◆ **Compile information to develop preliminary and projected HRS scores:** If the site poses a threat that warrants potential remedial action, the PA should collect data to develop preliminary and projected HRS scores. The preliminary and projected HRS scores are important in making a management decision on the priority of a site for SI.
- ◆ **Set priorities for SIs:** The fourth goal of the PA is to set the priority of the site for an SI. After PAs, all sites are placed into one of three categories: high priority, low priority and NFRAP.

Abbreviated PA

- ◆ Purpose
- ◆ Situations where APA can be performed
- ◆ Possible decisions
- ◆ Reporting requirements



1-30

Notes



Abbreviated PA (APA): EPA has issued guidance for conducting an APA instead of a full PA. States and other Federal agencies should consult with the EPA prior to initiating an APA to ensure sufficient data are collected to make an appropriate decision.

- ◆ **Purpose:** EPA Regions have found that they can often determine a site's location in the Superfund site screening process and whether it should be removed from the process altogether, with less information than is required for a conventional PA. In this type of situation, an APA report may be produced in place of a full PA report. The APA approach uses the same information as the conventional PA approach but relies on professional judgment and past site assessment experience to make decisions about a site at earlier stages of the PA process. Responsibility and funding for APAs are the same as for conventional PAs. A brief APA report with a completed Abbreviated Preliminary Assessment Checklist or equivalent documentation, meets all the CERCLA and NCP requirements for a PA.
- ◆ **Situations where APA can be performed:** In general, there are three typical situations in which an APA may be used instead of a full PA to increase efficiency and shorten the PA process:
 - » A site has been unnecessarily listed in CERCLIS because it is not eligible or because it could be deferred to another program.
 - » Available information allows the EPA to make an early decision to undertake an SI or another Superfund investigation.
 - » A NFRAP decision can be made without completing a full PA.

- ◆ **Possible decisions:** Based on the results of an APA, one of the following decisions could be made:
 - » NFRAP under Superfund
 - » Defer the site to another Federal program with investigation, enforcement or remediation authority such as RCRA or the Nuclear Regulatory Commission (NRC)
 - » Delay the decision until State or Tribal program ends active involvement in response activities
 - » Assign high priority for further assessment
 - » Assign low priority for further assessment
 - » Refer to the removal program
 - » Incorporate this site into an existing CERCLIS site

- ◆ **Reporting requirements:** When a full PA is unnecessary, you should develop an APA report to document the rationale for the decision. The APA report must meet the same requirements set forth for a PA in the NCP. The APA report should present and fully support all information that led to abbreviating the PA process. The Abbreviated Preliminary Assessment checklist should be included as part of the APA report. The APA report must meet all the NCP requirements for a PA report discussed previously, including those requirements for response to a citizen petition.

SI

- ◆ Is the third phase in the site assessment process
- ◆ Builds upon information collected and analyzed during the PA
- ◆ Includes field activities to collect data to help characterize releases at the site and support preparation of an HRS package
- ◆ Results in a narrative report and score sheets

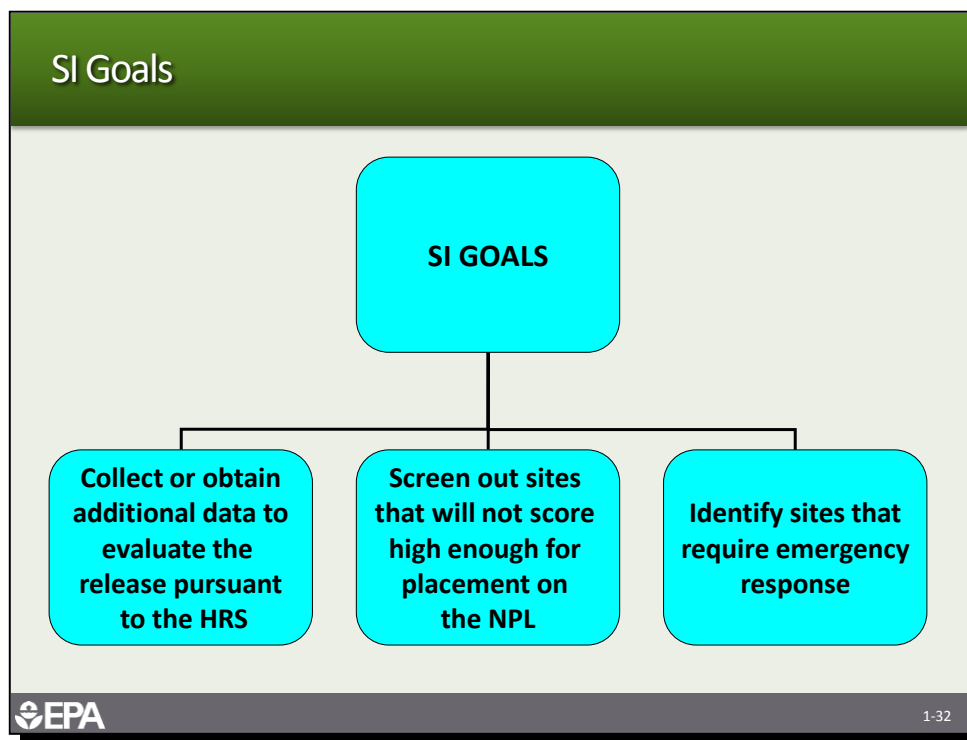


1-31

Notes



- ◆ **Is the third phase in the site assessment process:** The SI phase is a dynamic and flexible process that should be tailored to the specific circumstances of individual sites; it is not a standardized process to be repeated at every site. An SI may be used to fulfill screening (referred to as a focused SI) and/or listing functions (referred to as an Expanded SI [ESI]).
- ◆ **Builds upon information collected and analyzed during the PA:** Sites that may pose a threat receive a further action recommendation after the PA and undergo an SI where investigators collect sufficient waste and environmental media samples to identify sites that have a high probability of qualifying for the NPL. Often, the SI can be limited to screening the site to confirm that it has no reasonable chance for placement on the NPL.
- ◆ **Includes field activities to collect data to help characterize releases at the site and support preparation of an HRS package:** Generally, the SI is the first investigation to collect and analyze waste and environmental samples to support a site evaluation according to the HRS. SI samples are strategically placed to identify the substances present, determine whether hazardous substances are being released to the environment and determine whether hazardous substances have impacted specific targets. During the SI stage, anywhere from 12 to 35 samples may be collected. Additional information regarding number of samples is discussed in *Module 7 – Conducting the Site Inspection*.
- ◆ **Results in a narrative report and score sheets:** After completing the SI, a site investigator prepares a narrative report summarizing what is known about the site, the activities conducted during the SI and all information researched.



Notes



- ◆ **Collect or obtain additional data to evaluate the release pursuant to the HRS:** When initial site samples verify or support some or all of the PA hypothesis, or other data indicate that the site poses a sufficient threat to warrant NPL consideration, the SI must be comprehensive and support HRS package preparation.
- ◆ **Screen out sites that will not score high enough for placement on the NPL:** The SI will either allow the investigator to determine if site qualifies for the NPL or to support a NFRAP recommendation by testing the PA hypothesis.
- ◆ **Identify sites that require emergency response or to support enforcement:** Other SI goals are to support potential removal or enforcement actions and to collect data to support a remedial investigation/feasibility study (RI/FS) (if the site were placed on the NPL) or response action under other authorities.

Hazard Ranking System (HRS)

- ◆ Is the principle mechanism used to place sites on the NPL
- ◆ Uses a structured approach to score sites
- ◆ Culminates in preparation and submittal of an HRS scoring package to EPA Headquarters

(continued)



1-33

Notes



- ◆ **Is the principle mechanism used to place sites on the NPL:** CERCLA requires and the NCP establishes criteria for determining priorities among releases or threatened releases throughout the U.S. for the purpose of taking remedial action. The HRS is the principal mechanism EPA uses to place uncontrolled waste sites on the NPL. It is a numerically based screening system that uses information from initial, limited investigations (that is, the PA and SI), to assess the relative potential of sites to pose a threat to human health or the environment. HRS scores do not determine the priority in funding EPA remedial response actions, because the information collected to develop HRS scores is not sufficient to determine either the extent of contamination or the appropriate response for a particular site.
- ◆ **Uses a structured approach to score sites:** The HRS uses a structured approach to scoring sites. This approach assigns numerical values to factors that relate to risk based on conditions at the site. The factors are grouped into three categories:
 - » Likelihood that a site has released or has the potential to release hazardous substances into the environment;
 - » Characteristics of the waste (e.g., toxicity and waste quantity); and
 - » People or sensitive environments (targets) affected by the release.

- ◆ **Culminates in preparation and submittal of an HRS scoring package to EPA Headquarters:** A complete HRS scoring package consists of the following materials:

1. Site narrative summary
2. HRS documentation record (hard and electronic copies), which includes HRS scoresheets (hard and electronic copies)
3. Completed copies of referenced reports, maps and documents
4. Other information, as appropriate

HRS

◆ Scores four pathways:

- » Ground water migration
- » Surface water migration
- » Soil exposure
- » Air migration



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Notes



◆ Scores four pathways: Four pathways can be scored under the HRS:

- » Ground water migration (drinking water);
- » surface water migration (drinking water, human food chain, sensitive environments);
- » soil exposure (resident population, nearby population, sensitive environments); and
- » air migration (population, sensitive environments).

After scores are calculated for one or more pathways, they are combined using a root-mean-square equation to determine the overall site score. In general, usually only one pathway will score. The following percentages designate the number of sites that are scored on each pathway.

- » groundwater migration scored 50 percent of the time;
- » surface water migration scored 52 percent of the time;
- » soil exposure scored 16 percent of the time; and
- » air migration scored 7 percent of the time.

NPL

- ◆ **Required by CERCLA; primarily an information and management tool**
- ◆ **Requires a rulemaking**
- ◆ **Mechanisms used to place sites on NPL:**
 - » HRS (score greater than or equal to 28.50)
 - » State designation
 - » Other criteria established by the EPA and ATSDR



1-35

Notes



- ◆ **Required by CERCLA; primarily an information and management tool:** CERCLA requires that the NCP include a list of national priorities among the known releases or threatened releases of hazardous substances, pollutants or contaminants throughout the United States. The NPL was developed primarily for management purposes. It identifies for the states, the EPA and the public, facilities and sites which may need remedial action. It does not necessarily mean that a site owner or operator is violating any regulations, it does not require them to undertake any action, and it does not imply judgment about whether a site owner or operator is guilty or responsible under CERCLA.
- ◆ **Requires a rulemaking:** EPA must follow administrative procedures for rulemaking when placing sites on the NPL. This process involves issuing a notice in the *Federal Register* proposing a site be placed on the NPL; obtaining public comments on the proposal; issuing a notice of final rulemaking in the *Federal Register* and responding to public comments.

CERCLA requires that the EPA update the NPL at a minimum on an annual basis. EPA publishes an updated NPL in the *Federal Register*.
- ◆ **Mechanisms used to place sites on the NPL:** Several mechanisms are used to place sites on the NPL:
 - » **HRS:** The HRS is the primary mechanism used to place sites on the NPL. Sites that score **28.50** or higher using the HRS are eligible for placement on the NPL.

- » **State designation:** Under CERCLA, each state may designate a single site as its top priority, regardless of the HRS score.

- » **Other criteria established by the EPA and ATSDR:** Under 40 CFR 300.425(c)(3), EPA also may list sites if the Agency for Toxic Substance and Disease Registry (ATSDR) recommends dissociation of individuals from the release, if EPA determines that the release poses a significant public health threat; and if EPA anticipates that it would be more cost-effective to use remedial rather than removal authorities for cleanup.

Superfund Alternative Agreement (SAA) Approach

- ◆ SAA is one option for remediation of a site without listing on the NPL
- ◆ Enforcement policy that allows EPA regions to pursue settlements with PRPs without listing a site on the NPL
- ◆ EPA and the State should agree on the SAA option and coordinate in the response
- ◆ Response selection and oversight is same as if the site were on the NPL – according to the NCP
- ◆ Settlements should achieve similar results as sites placed on the NPL



1-36

Notes



- ◆ **Superfund Alternative Agreement Approach:** EPA has issued guidance regarding Superfund Alternative Sites – sites that require long-term response and are eligible to be placed on the NPL but are not listed. EPA has established criteria for designating a site as a Superfund Alternative Agreement (SAA) Site that involves appropriate consultation and/or notifications to interested stakeholders and enforcement provisions to be included in settlements at these sites.

On June 24, 2002, EPA Office of Site Remediation and Enforcement (OSRE) and Office of Superfund Remediation and Technology Innovation (OSRTI) issued a guidance titled, “Response Selection and Enforcement Approach for Superfund Alternatives Sites (SAS) Guidance” (the SAS Guidance). The SAS Guidance sets forth general enforcement and settlement approaches for SAA sites. EPA’s principle goal with this guidance is to provide a process that will result in settlements and cleanups equivalent to those at NPL sites.

In June 2004, the guidance was revised to respond to stakeholder concerns, add model settlement agreement language, and improve the transparency of the SAA.

Regions should ensure that sites designated as SAA sites meet NCP criteria (HRS score greater than or equal to 28.50) for listing and require long-term response. Regions should encourage PRPs to perform the cleanup as early as possible at SAA sites. Because Fund monies for RA are limited to sites listed on the NPL, these sites must be PRP-lead for RA.

As discussed in the SAS Guidance, it is crucial that the EPA provide the States, Federal, natural resource trustees (including Tribes) and communities the same opportunity for involvement at SA sites as that provided at NPL sites. Similarly, where the EPA suspends listing of a site to pursue a Superfund Alternative approach, the EPA should ensure that its enforcement posture is equivalent to its enforcement posture at NPL sites. To accomplish this, the SAS Guidance discusses four enforcement provisions to be negotiated into settlements at SAA sites.

- ◆ **Enforcement policy that allows EPA regions to pursue settlements with PRPs without listing the site on the NPL:** More recently, EPA regions have obtained settlement agreements with PRPs without listing a site on the NPL. In 2004, EPA HQ issued revised guidance to facilitate settlements and cleanups at SAA sites that are equivalent to settlements and cleanups at sites on the NPL.
- ◆ **EPA and the State must agree on the SAA site and coordinate in the response:** States must be notified and consulted when an EPA Region contemplates designating a SAA site. There is a general expectation that EPA and the State will agree on designating a site as a SAA site. The State is to be involved and consulted on long-term planning for the site and at key decision making points in the cleanup process: RI/FS, selection of remedy, Proposed Plan and Record of Decision (ROD).
- ◆ **Response selection and oversight is same as if the site were on the NPL:** The response selection process should be the same as for NPL sites. Cleanup remedies should consider anticipating future land use and ensure compliance with NCP requirements. In addition, the EPA or the State must provide oversight where the response is performed under an order or consent decree (CD).
- ◆ **Settlements should achieve similar results as sites placed on the NPL:** During negotiations, the following provisions should be included in settlement agreements:
 - » Technical Assistance Plan for local communities
 - » Financial assurance mechanism for work continuance
 - » Agreement not to challenge listing after partial cleanup
 - » Natural resource damages (NRD) provision

The first two provisions are intended to put the EPA in a similar position to access the Trust Fund as if the site were listed on the NPL. The third provision is intended to place the EPA in an equivalent positions similar to its position at sites that have been proposed or placed on the final NPL. The NRD provision is to protect the interests of the Natural Resource Trustees to the same degree as sites that are placed on the NPL.

EPA Regions need to pursue other enforcement options if PRPs are unwilling to agree to the provisions or otherwise breach a settlement agreement reached with the EPA.

Tracking Sites in the CERCLA Response Process

- ◆ CERCLIS is EPA's comprehensive database and data management system that inventories and tracks releases addressed or needing to be addressed by the Superfund program
- ◆ In 2014, the Superfund program implemented a new information system, the **Superfund Enterprise Management System (SEMS)**. Efforts to migrate data to SEMS are progressing. Information in CERCLIS reflects data as of the end of Fiscal Year 2013. The current estimate for refreshing the content in SEMS is September 30, 2014.

Source: <http://www.epa.gov/superfund/sites/phonefax/products.htm>



1-37

Notes



- ◆ Once an abandoned or uncontrolled hazardous waste site is identified, information regarding the site is entered into a database known as CERCLIS. CERCLIS maintains a permanent record of all information regarding all reported potential hazardous waste sites. The CERCLIS database contains the official inventory of Superfund hazardous waste sites. CERCLIS was created to inventory hazardous waste sites identified through the one-time notification required under CERCLA § 103(c). EPA Regional offices have been adding sites to CERCLIS since 1980. In the past, once a site had been entered, it could not be removed. Today, sites are archived in CERCLIS if they are deleted from the NPL. Deletion promotes reuse of properties, including industrial or light-industrial.

CERCLIS also contains information about all aspects of hazardous waste sites, from initial discovery to deletion from the NPL. CERCLIS maintains information about planned and actual activities and financial information entered by EPA Regional offices. Financial data and data on site activities from the pre-remedial, remedial, removal and enforcement programs are included. CERCLIS records the targets and accomplishments of the Superfund program and is used to report this information to the EPA Administrator, Congress and the public.

In 2014, the Superfund Program implemented a new information system, the **Superfund Enterprise Management System (SEMS)**. Efforts to migrate data to SEMS and to enhance data quality control are progressing. The Program will continue to rely on the final CERCLIS data set (dated November 12, 2013, which reflects official end of Fiscal Year 2013 Program progress) for public reporting until a complete and accurate SEMS data set is available. The current estimate for refreshing the content on this page is September 30, 2014.

Archived Sites

- ◆ **Site-wide decision that no further interest exists at the site under the Superfund program based on available information**
- ◆ **Archived sites can be re-evaluated if new information becomes available, such as new target population**



1-38

Notes

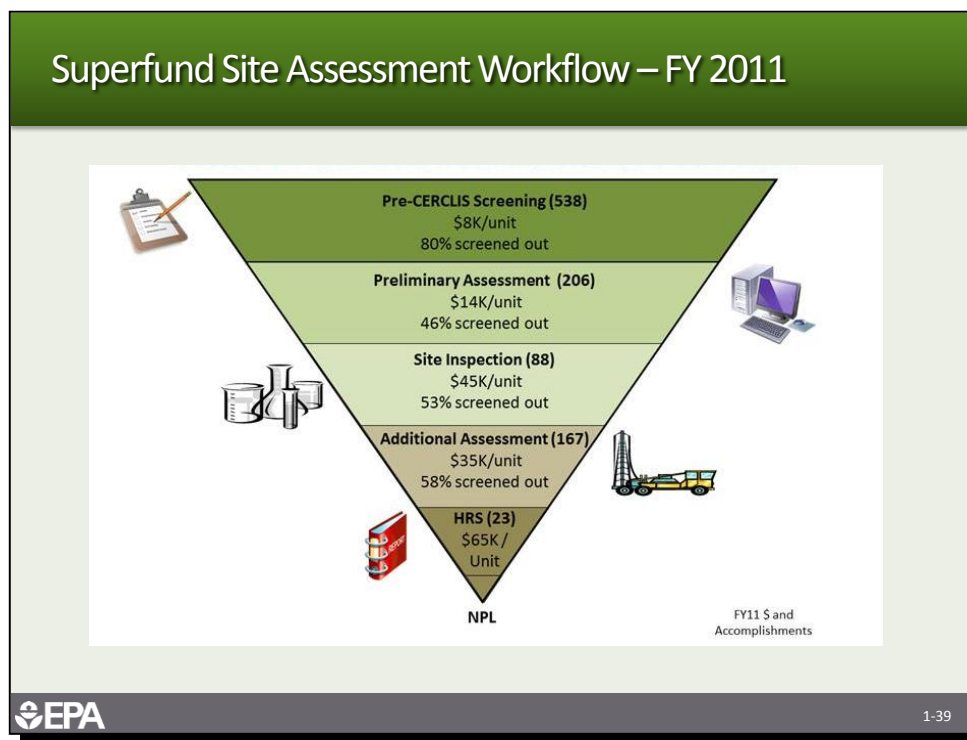


- ◆ **Site-wide decision that no further interest exists at the site under the Superfund program based on available information.** Archiving is a comprehensive decision indicating there is no further Superfund site assessment, remedial, removal, enforcement, cost recovery or oversight activities being planned or conducted at the site. Re-evaluation work may be performed at a site while the site is archived if site conditions change and or new information becomes available. After re-evaluation, if the site is determined to need substantial site characterization and or cleanup work under the Superfund program, the site must be returned to the CERCLIS inventory.

Although the underlying basis for archiving a CERCLIS site is whether or not Superfund interest exists, several categories of sites, listed below, are used to generate lists of potential archive candidate sites.

- » Sites that have completed only the site assessment process and have been given either a NFRAP or deferred decision at the conclusion of the last completed site assessment action, and no other Superfund activity is anticipated;
- » Sites that have completed both the removal and site assessment processes, or have completed the removal process and require no site assessment work (removal-only), and which have completed all related oversight, cost recovery/other enforcement work, and have no further Superfund activity anticipated;

- » Sites that have successfully completed State Deferral (described in OSWER May 1995 *Guidance on Deferral of NPL Listing Determinations While States Oversee Response Actions*) and no further Superfund activity is anticipated;
- » Site removed from the proposed NPL or final NPL that have no further Superfund activity anticipated;
- » Child sites addressed as part of a parent NPL or non-NPL site, provided there is no further Superfund interest at the area represented by the child site. Parent non-NPL sites should not be archived until all related child sites have been archived;
- » Sites that have been entered into the CERCLIS inventory via entry of a site discovery or site initiation date which have not had any work started and, based on review, do not warrant any type of additional Superfund activity. An APA should be completed for these sites prior to designating archive status.
- » Sites that have completed Other Cleanup Activities by a non-EPA party under the site assessment process and have no other Superfund activity anticipated.



Notes



- ◆ **Superfund Site Assessment Workflow:** The graphic above depicts the workflow and results from the CERCLA site assessment process during fiscal year 2011 (FY 2011).
- ◆ **Key Points to the graphic above:**
 - » The majority of sites entering the system are not placed on the NPL
 - » 80 percent of sites are screened out prior to discovery
 - » Actions taken if site is not listed on NPL include:
 - NFRAP
 - Deferred to RCRA, Nuclear Regulatory Commission (NRC) or State
 - Other Clean-Up Authorities

Roles and Responsibilities for Performing Site Assessments

- ◆ EPA
- ◆ States and Tribal Governments
- ◆ Federal facilities at sites under their jurisdiction



1-40

Notes



- ◆ **EPA:** The NCP determines the lead agency responsible for planning and implementing a response action under CERCLA and EPA is designated as the lead agency for implementing response actions, including site assessment activities, at any site that is not under the jurisdiction of another Federal department or agency. The EPA is responsible for reviewing HRS scoring packages and only the EPA can place sites on the NPL.
- ◆ **States and Tribal Governments:** A state and tribal government operating pursuant to a contract, cooperative agreement or Superfund Memorandum of Agreement may serve as the lead agency for a response action, and perform site assessment activities.
- ◆ **Federal Facilities at sites under their jurisdiction:** The NCP has assigned the Federal facility (e.g., DoD or DOE) the role of lead agency for implementing CERCLA response authorities at sites under the department or agency's jurisdiction.

Special Requirements and Timetables for Federal Facilities

- ◆ **Creation of a Federal Agency Hazardous Waste Compliance Docket**
- ◆ **Completion of a PA/SI within a reasonable timeframe**
- ◆ **Commencement of a RI/FS within 6 months of listing on the NPL**
- ◆ **Enter into an FFA/IA for remedial action at sites on the NPL**
- ◆ **Requirements applicable to the transfer of Federal property**



1-41

Notes



CERCLA § 120 establishes special requirements for Federal facilities: As noted earlier in Module 2, section 120 of CERCLA was added by SARA, and is devoted to Federal facilities and established several special requirements and timetables, including:

- ◆ **Creation of a Federal Agency Hazardous Waste Compliance Docket:** Federal facilities that have reported managing hazardous substances or releases of hazardous substances are required to be placed on the Federal Agency Hazardous Waste Compliance Document. The docket is updated biannually.
- ◆ **Completion of a PA/SI within a reasonable timeframe:** After a Federal facility is listed on the docket, CERCLA requires that a PA/SI be conducted within a reasonable timeframe. EPA's policy for what is considered a reasonable timeframe is 18 months. Following completion of the PA/SI, the EPA evaluates the site for potential listing on the NPL.
- ◆ **Commencement of a RI/FS within 6 months of listing on the NPL:** If a Federal facility is placed on the NPL, § 120 of CERCLA requires that the facility begin a RI/FS, in consultation with the EPA and the state, within six months. EPA and the state must publish an enforceable timetable and deadlines for RI/FS completion, and must review the RI/FS report (the timetable and deadlines are usually included in the Federal Facility Agreement/Interagency Agreement [FFA/IAG]).

- ◆ **Enter into a FFA/IA for remedial action at sites on the NPL:** Section 120 also requires Federal facilities to enter into a FFA/IA (also referred to as a FFA), with the EPA for remedial action at sites on the NPL within 180 days after EPA's review of the RI/FS. In addition, the EPA is provided authority to select the remedy at Federal facility sites on the NPL.

- ◆ **Requirements applicable to the transfer of Federal property:** Section 120(h) of CERCLA contains several requirements that concern transfers of Federal property. A number of those requirements were added by the Community Environmental Response Facilitation Act (CERFA) and include:
 - » Placement of a notice in the contract to sell or transfer Federal property describing all hazardous substances that have been stored for a year or more or are known to have been released, or were disposed on the property. The form of the notice is in 40 CFR Part 373.

 - » Information that must be placed in deeds that transfer U.S. property to another person. In particular, § 120(h)(3)(A)(ii) requires that the Federal agency provide a covenant that all remedial action has been taken to protect human health and the environment with respect to hazardous substances remaining on the property.

 - » Investigation of uncontaminated property at facilities on which Federal operations will be terminated and at installations or bases that are closing or realigning.

 - » Notification of states regarding certain leases.

Community Involvement Activities During the Site Assessment Process

- ◆ Will vary at the PA phase depending on nature and severity of the threat and expected length of response action
- ◆ Field activities performed as part of the SI may warrant notification to interested community members about planned site activities



(continued)



1-42

Notes



- ◆ **Will vary at the PA phase depending on nature and severity of the threat and expected length of response action:** Planning for community involvement should begin during the site assessment phase. If no immediate threat is present that requires emergency response, then, during the site assessment, the EPA and the state or tribe will evaluate the severity of the reported release. In general, there is little need for organized community involvement during the PA beyond designating a community involvement coordinator (CIC) and possibly calling key local officials. Community involvement activities should be planned for if the response action is expected to last more than 120 days.
- ◆ **Field activities performed as part of the SI may warrant notification to interested community members about planned site activities:** Because an SI involves teams working in protective clothing, community interest in the site may likely increase. Although not required, site investigators may want to prepare the community beforehand for any on-site visits by technical work teams.

Community Involvement Activities During the Site Assessment Process

◆ Recommended activities during the PA and SI include:

- » Designating a community involvement coordinator (CIC)
- » Distributing fact sheets
- » Issue news releases and updates

(continued)



1-43

Notes



◆ Recommended activities during the PA and SI include: Recommended outreach activities during the PA and SI include:

- » Designating a CIC
- » Distributing fact sheets
- » Issue news releases and updates

Community Involvement Activities During the Site Assessment Process

- ◆ **Public is offered opportunity to comment on proposed listing of site on NPL**
- ◆ **Site assessment reports and recommendations need to be available for public inspection**
 - » May also become part of the Administrative Record (AR) if used to support an Agency Decision (e.g., time-critical removal action or NPL listing)



1-44

Notes



- ◆ **Public is offered opportunity to comment on proposed listing of site on NPL:** As noted in an earlier slide, EPA must allow the public to comment on proposed site listings on the NPL as part of the rulemaking process. A public meeting also may be held in conjunction with a proposed site listing.
- ◆ **Site assessment reports and recommendations need to be available for public inspection:** PA reports and SI reports that result in a NFRAP must be placed in publicly accessible repositories or docket.
 - » **May also become part of the AR if used to support an Agency Decision (e.g., time-critical removal action or NPL listing):** Site assessment records, such as PA and SI reports, sampling and laboratory results, and other site assessment data may become part of the Administrative Record (AR) required to support an Agency decision (e.g., Action Memorandum for a removal action). In particular, the HRS scoring package is a critical document that is included in the AR established for a NPL listing rulemaking.

Relationship to Other Federal Cleanup Authorities and Programs

- ◆ **Response actions to oil spills under the CWA and OPA**
- ◆ **Enforcement and corrective action provisions under RCRA**
- ◆ **Enforcement provisions under the Safe Drinking Water Act (SDWA) and TSCA**
- ◆ **Integration of CERCLA and other cleanup authorities**



1-45

Notes



- ◆ **Response actions to oil spills under the CWA and OPA:** The CWA, as amended OPA, provide the Federal government with authorities to respond to the release of oil and hazardous substances to navigable waters of the United States. The CWA/OPA established an Oil Spill Trust Fund to finance cleanups. The CWA/OPA also contains provisions that assign liability to responsible parties for the cleanup and damage caused by discharges of oil into navigable waters. Responses to oil spills are performed in accordance with the requirements of the NCP. EPA's Emergency Response Program coordinates and implements removal authorities under CWA/OPA.
- ◆ **Enforcement and corrective action provisions under RCRA:** RCRA established three major regulatory programs: hazardous waste management (Subtitle C); solid waste management (Subtitle D); and underground storage tanks (Subtitle I). Under each of those programs, RCRA provides comprehensive enforcement and corrective action requirements to compel regulated owners or operators to investigate and cleanup the release of solid and hazardous wastes, hazardous constituents, or regulated substances into the environment, respectively. Unlike CERCLA, RCRA authority can be delegated to states, and most states are authorized to implement corrective action. In general, the cleanup process that occurs under RCRA corrective action follows the general process used under CERCLA, but it is performed under authority of a permit or enforcement order. In general, RCRA cleanups are limited to the facility property.
- ◆ **Enforcement provisions under SDWA and TSCA:** The imminent and substantial endangerment provisions of SDWA. Polychlorinated biphenyls (PCB) regulations are an ARAR that are used to compel clean up under Superfund. TSCA has no authority to compel PRPs to cleanup PCBs either administratively or through the courts.

- ◆ **Integration of CERCLA and other cleanup authorities:** Some sites, such as Federal facilities, have releases that are potentially subject to CERCLA and other Federal laws, particularly RCRA corrective action. Several different legal mechanisms exist to coordinate and integrate different cleanup requirements.

Relationship to State and Tribal Response Programs

- ◆ **State and tribal response programs play a significant role in the cleanup of sites**
- ◆ **Relationship of EPA cleanup authorities under CERCLA and RCRA and state and tribal response programs**
 - » Voluntary Cleanup Program (VCP) Memorandum of Agreements (MOA)
 - » RCRA Memorandum of Understandings (MOU)



1-46

Notes



- ◆ **State and Tribal response programs play a significant role in the cleanup of sites:** State and tribal response programs oversee the assessment and cleanup of the majority of contaminated sites in the country, particularly lower-risk (non-NPL) sites. The depth and breath of state and tribal response programs vary. Some of these programs only focus on CERCLA-regulated sites, others include CERCLA- and RCRA-regulated sites, while others may also include sites that are covered under the Brownfields program, state voluntary cleanup program (VCP) or other redevelopment and reuse legal authorities.
- ◆ **Relationship of EPA cleanup authorities under CERCLA and RCRA and state and tribal response programs:** Prior to the Brownfields program, the EPA established a framework for negotiations between states and EPA regions regarding the use of state VCPs and other state authorities to cleanup contaminated sites.
 - » **VCP Memorandum of Agreements (MOA):** In 1996, the EPA issued guidance on negotiating MOAs regarding use of state VCPs to cleanup sites in lieu of using Federal cleanup authorities. The guidance established six baseline criteria for VCPs, including:
 1. Provide meaningful opportunities for public involvement,
 2. Ensure voluntary approaches are protective of human health and the environment,
 3. Has adequate resources to ensure cleanup is performed in timely and appropriate manner,

4. Provides mechanisms for written approval or response and certification of completion,
 5. Provides adequate oversight, and
 6. Shows capability of ensuring completion of long-term activities through operation and maintenance or long-term monitoring.
- » **RCRA Memorandum of Understandings (MOU):** State or tribal governments may also have established MOUs with EPA regions regarding the coordination and communication of cleanups conducted under their VCP programs and RCRA corrective action and other RCRA cleanup authorities.

Summary

- ◆ **CERCLA enables direct Federal response to the release of hazardous substances and pollutants or contaminants into the environment**
- ◆ **CERCLA authorizes three types of response actions: removal, remedial and enforcement**
- ◆ **The NCP assigns roles and responsibilities to responders**
 - » Provides detailed procedures for the conduct of response actions
- ◆ **Certain releases are excluded from CERCLA response authorities**

(continued)



1-47

Summary

- ◆ **Sites are assessed upon discovery or notification of a release and entering the site into CERCLIS/SEMS**
- ◆ **Sites are assessed using a phased investigation consisting of a PA and, if necessary, SI**
- ◆ **Sites are scored using the HRS to determine if they are candidates for placement on the NPL**
- ◆ **The HRS cutoff value for the NPL is 28.50**
- ◆ **A removal action may be taken, if conditions warrant, at any time during the assessment process**



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Next Webinar – Wednesday, July 2, 2014

- ◆ **Module 2: Basics of Performing Site Assessments and Conducting the PA** will be held on Wednesday, July 2, 2014 from 1 p.m. to 3 p.m. Eastern



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PRE-CERCLIS SCREENING ASSESSMENT CHECKLIST/DECISION FORM

This checklist can assist the site investigator during the Pre-CERCLIS screening. It will be used to determine whether further steps in the site investigation process are required under CERCLA. Use additional sheets, if necessary.

Checklist Preparer:

| | |
|------------------|---------|
| _____ | _____ |
| (Name/Title) | (Date) |
| _____ | _____ |
| (Address) | (Phone) |
| _____ | |
| (E-Mail Address) | |

Site Name: _____

Previous Names (if any): _____

Site Location: _____
 (Street)
 _____, _____ - _____
 (City) (ST) (Zip)

Latitude: _____ **Longitude:** _____

Complete the following checklist. If “yes” is marked, please explain below.

| | YES | NO |
|---|--------------------------|--------------------------|
| 1. Does the site already appear in CERCLIS? | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Is the release from products that are part of the structure of, and result in exposure within, residential buildings or businesses or community structures? | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Does the site consist of a release of a naturally occurring substance in its unaltered form, or altered solely through naturally occurring processes or phenomena, from a location where it is naturally found? | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Is the release into a public or private drinking water supply due to deterioration of the system through ordinary use? | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Is some other program actively involved with the site (i.e., another Federal, State, or Tribal program)? | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Are the hazardous substances potentially released at the site regulated under a statutory exclusion (i.e., petroleum, natural gas, natural gas liquids, synthetic gas usable for fuel, normal application of fertilizer, release located in a workplace, naturally occurring, or regulated by the NRC, UMTRCA, or OSHA)? | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. Are the hazardous substances potentially released at the site excluded by policy considerations (e.g., deferral to RCRA Corrective Action)? | <input type="checkbox"/> | <input type="checkbox"/> |
| 8. Is there sufficient documentation that clearly demonstrates that there is no potential for a release that could cause adverse environmental or human health impacts (e.g., comprehensive remedial investigation equivalent data showing no release above ARARs, completed removal action, documentation showing that no hazardous substance releases have occurred, EPA approved risk assessment completed)? | <input type="checkbox"/> | <input type="checkbox"/> |

Please explain all “yes” answer(s), attach additional sheets if necessary: _____

Site Determination:

- Enter the site into CERCLIS. Further assessment is recommended (explain below).
- The site is not recommended for placement into CERCLIS (explain below).

DECISION/DISCUSSION/RATIONALE:

Regional EPA Reviewer:

Print Name/Signature

Date

State Agency/Tribe:

Print Name/Signature

Date

ABBREVIATED PRELIMINARY ASSESSMENT CHECKLIST

This checklist can be used to help the site investigator determine if an Abbreviated Preliminary Assessment (APA) is warranted. This checklist should document the rationale for the decision on whether further steps in the site investigation process are required under CERCLA. Use additional sheets, if necessary.

Checklist Preparer: _____
 (Name/Title) (Date)

 (Address) (Phone)

 (E-Mail Address)

Site Name: _____

Previous Names (if any): _____

Site Location: _____
 (Street)
 _____, _____ - _____
 (City) (ST) (Zip)

Latitude: _____ **Longitude:** _____

Describe the release (or potential release) and its probable nature: _____

Part 1 - Superfund Eligibility Evaluation

If all answers are “no” go on to Part 2, otherwise proceed to Part 3.

| | YES | NO |
|--|--------------------------|--------------------------|
| 1. Is the site currently in CERCLIS or an “alias” of another site? | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Is the site being addressed by some other remedial program (Federal, State, or Tribal)? | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Are the hazardous substances potentially released at the site regulated under a statutory exclusion (e.g., petroleum, natural gas, natural gas liquids, synthetic gas usable for fuel, normal application of fertilizer, release located in a workplace, naturally occurring, or regulated by the NRC, UMTRCA, or OSHA)? | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Are the hazardous substances potentially released at the site excluded by policy considerations (i.e., deferred to RCRA corrective action)? | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Is there sufficient documentation to demonstrate that no potential for a release that could cause adverse environmental or human health impacts exists (e.g., comprehensive remedial investigation equivalent data showing no release above ARARs, completed removal action, documentation showing that no hazardous substance releases have occurred, or an EPA approved risk assessment completed)? | <input type="checkbox"/> | <input type="checkbox"/> |

Please explain all “yes” answer(s). _____

**EXHIBIT 1
SITE ASSESSMENT DECISION GUIDELINES FOR A SITE**

Exhibit 1 identifies different types of site information and provides some possible recommendations for further site assessment activities based on that information. You will use Exhibit 1 in determining the need for further action at the site, based on the answers to the questions in Part 2. Please use your professional judgement when evaluating a site. Your judgement may be different from the general recommendations for a site given below.

| Suspected/Documented Site Conditions | | APA | Full PA | PA/SI | SI | |
|--------------------------------------|--|--------------------|---------|-------|-----|-----|
| 1. | There are no releases or potential to release. | Yes | No | No | No | |
| 2. | No uncontained sources with CERCLA-eligible substances are present on site. | Yes | No | No | No | |
| 3. | There are no on-site, adjacent, or nearby targets. | Yes | No | No | No | |
| 4. | There is documentation indicating that a target (e.g., drinking water wells, drinking surface water intakes, etc.) has been exposed to a hazardous substance released from the site. | Option 1: APA ⇄ SI | Yes | No | No | Yes |
| | | Option 2: PA/SI | No | No | Yes | NA |
| 5. | There is an apparent release at the site with no documentation of exposed targets, but there are targets on site or immediately adjacent to the site. | Option 1: APA ⇄ SI | Yes | No | No | Yes |
| | | Option 2: PA/SI | No | No | Yes | NA |
| 6. | There is an apparent release and no documented on-site targets and no documented targets immediately adjacent to the site, but there are nearby targets. Nearby targets are those targets that are located within 1 mile of the site and have a relatively high likelihood of exposure to a hazardous substance migration from the site. | No | Yes | No | No | |
| 7. | There is no indication of a hazardous substance release, and there are uncontained sources containing CERCLA hazardous substances, but there is a potential to release with targets present on site or in proximity to the site. | No | Yes | No | No | |

Part 3 - EPA Site Assessment Decision

When completing Part 3, use Part 2 and Exhibit 1 to select the appropriate decision. For example, if the answer to question 1 in Part 2 was “no,” then an APA may be performed and the “NFRAP” box below should be checked. Additionally, if the answer to question 4 in Part 2 is “yes,” then you have two options (as indicated in Exhibit 1): Option 1 -- conduct an APA and check the “Lower Priority SI” or “Higher Priority SI” box below; or Option 2 -- proceed with a combined PA/SI assessment.

| | |
|--|--|
| Check the box that applies based on the conclusions of the APA: | |
| <input type="checkbox"/> NFRAP | <input type="checkbox"/> Refer to Removal Program - further site assessment needed |
| <input type="checkbox"/> Higher Priority SI | <input type="checkbox"/> Refer to Removal Program - NFRAP |
| <input type="checkbox"/> Lower Priority SI | <input type="checkbox"/> Site is being addressed as part of another CERCLIS site |
| <input type="checkbox"/> Defer to RCRA Subtitle C | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Defer to NRC | |
| Regional EPA Reviewer: _____ | |
| Print Name/Signature | Date |

