Superfund Program Implementation Manual FY 08/09

Chapter I: Introduction

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Chapter I
Introduction

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CHAPTER I: INTRODUCTION

I.A. PURPOSE

EPA, working in collaboration with other federal agencies, the states, Indian tribes, local governments and affected community members, manages programs designed to clean up priority hazardous waste sites and releases. These programs include Superfund, Brownfields, Resource Conservation and Recovery Act (RCRA) Corrective Action, and Underground Storage Tanks (UST). The focus of these programs is to maximize the protection of human health and the environment.

The Superfund Program Implementation Manual (SPIM) is a planning document that defines program management priorities, procedures, and practices for the Superfund program (including response, enforcement, and Federal facilities). The SPIM provides the link between the Government Performance and Results Act (GPRA), EPA's Strategic Plan, and the Superfund program's internal processes for setting priorities, meeting program goals, and tracking performance. It establishes the process to track overall program progress through program targets and measures.

GPRA holds federal agencies accountable for using resources wisely and achieving program results. GPRA requires agencies to develop plans for what they intend to accomplish, measure how well they are doing, make appropriate decisions based on the information they have gathered, and communicate information about their performance to Congress and to the public. GPRA requires agencies to develop a five-year Strategic Plan, including a mission statement and long-term goals and objectives. EPA's Strategic Plan is divided into five goals on the following topics: clean air, water, land, communities and ecosystems, and compliance and environmental stewardship. The Superfund program contributes to the goal of preserving and restoring the land. GPRA also requires agencies to develop Annual Performance Plans, which provide annual performance commitments toward achieving the goals and objectives presented in the Strategic Plan, and Annual Performance Reports, which evaluate an agency's progress toward achieving performance commitments.

The SPIM provides standardized and common definitions for the Superfund program, and it is part of EPA's internal control structure. As required by the Comptroller General of the United States, through generally accepted accounting principles (GAAP) and auditing standards, this document defines program scope and schedule in relation to budget, and is used for audits and inspections by the Government Accountability Office (GAO) and the Office of the Inspector General (OIG). The SPIM is developed on a biennial basis, and this document provides information for the period covering FY 2008 and FY 2009. Revisions to the SPIM are issued during the biennial cycle as needed.

The SPIM contains three chapters and a number of appendices. Chapter 1 provides a brief summary of the Superfund program and summarizes key program priorities and initiatives. Chapter 2 describes the budget process and financial management requirements. Chapter 3 describes program planning and reporting requirements and processes. Appendices A through H highlight program priorities and initiatives and provide detailed programmatic information, including program targets and measures, for critical parts of the Superfund program.

I.B. SUPERFUND

I.B.1. Introduction

The Superfund program addresses contamination from uncontrolled releases at Superfund hazardous waste sites that threaten human health and the environment. The Superfund program is comprehensive, yet flexible and innovative. Its mission is both immediate and long-range. Its focus is specific enough to handle individual site cleanup with precision, yet broad enough to encourage advances in a relatively new scientific and technical field. Today the hazardous waste problem in the United States remains large, complex and long-term.

The overarching goals of the Superfund program are ensuring the protection of human health and the environment, and maximizing the involvement of potentially responsible parties (PRPs) in conducting cleanups at sites, also known as "enforcement first." EPA will continue to generally address the worst sites first, while balancing the need to complete response actions at all contaminated sites.

To protect human health and the environment and address potential barriers to redevelopment, EPA works with other federal agencies, states, local governments, Indian tribes, and affected communities to:

- Assess sites and determine whether they meet the criteria for federal Superfund response actions;
- Prevent, minimize, or mitigate significant threats at Superfund sites through removal actions;
- Generate risk assessments that consider the future use of the site and prepare accurate cost-performance data as the technical foundation for environmental cleanup decisions;
- Complete remedial cleanup construction at sites listed on the National Priorities List (NPL);
- Control human exposure to and the migration of contaminated groundwater at NPL sites;
- Develop technologies for cost-effective site characterization and remediation;
- Ensure long-term protectiveness of remedies by overseeing operation and maintenance and conducting five-year reviews;
- Enhance the role of states, local governments, and Indian tribes in the implementation of the Superfund program;
- Pursue "enforcement first" throughout the Superfund cleanup process;
- Work with communities surrounding Superfund sites to improve their direct involvement in every phase of the cleanup process and their understanding of potential site risk;
- Continue the progress of cleanups while increasing consistency with other EPA cleanup programs; and
- Promote reuse and redevelopment of sites being addressed under Superfund authority.

I.B.2. Superfund and its History

Congress passed the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly called Superfund, in 1980. Prior to this, there was no authority for direct federal response to hazards posed by abandoned and uncontrolled hazardous waste sites. Existing environmental laws, such as the Resource Conservation and Recovery Act (RCRA), provided regulatory requirements to address present activities and prevent future catastrophes, but lacked authority to allow federal emergency and long-term responses to past disposal problems.

CERCLA is unique in that it provided the first federal response authority to address the problem of uncontrolled hazardous waste sites. CERCLA, for the first time, required EPA to step beyond its traditional regulatory role and provide response authority to clean up hazardous waste sites.

In October 1986, Congress reauthorized CERCLA by enacting the Superfund Amendments and Reauthorization Act (SARA). SARA included Title III, a freestanding statute that created the Emergency Planning and Community Right-to-Know Act (EPCRA). EPCRA is designed to help communities prepare to respond in the event of a chemical emergency, and to increase the public's knowledge of the presence and threat of hazardous chemicals. SARA also included the Defense Environmental Response Program (DERP) which authorized the Department of Defense to create a response program similar to EPA's Superfund Remedial Program.

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) is the major regulatory framework that guides the Superfund response effort. The NCP 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 the communities in response to situations in which hazardous substances are released into the environment.

The Omnibus Reconciliation Act of 1990, which extended Superfund authority, expired in 1994. Since 1994, many Congressional bills have been advanced to reauthorize the program, but none have been enacted. Many aspects of the program that have been subject to reauthorization proposals have been addressed through Superfund administrative reform. Through the act of appropriations, SARA authority for the Superfund program has been extended annually. During the 1990s, through various Defense Authorization Acts, Congress has modified provisions of Section 120, particularly those related to transfer of contaminated properties.

On January 11, 2002, President Bush signed into law the Small Business Liability Relief and Brownfields Revitalization Act (Public Law 107-188; H.R. 2869). The law provides a new definition of Brownfields as real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. The law expands potential financial and technical assistance for Brownfields cleanup and revitalization, including grants for assessment, cleanup, and job training. In addition, the law provides limited liability relief to certain contiguous property owners and prospective purchasers of contaminated properties, and clarifies the innocent landowner defense to encourage Brownfields cleanup and redevelopment. The law also enhances the roles and funding for state and tribal response programs.

EPA and Superfund stakeholders have worked since the inception of the program to reduce risks posed by abandoned and uncontrolled hazardous waste sites and make the program more effective. As of the end of FY 2006, EPA has finished remedial assessment work at over 39,000 sites, conducted more than 8,500 removals, and completed construction at 1006 of 1,557 sites on the NPL in an effort to protect human health and the environment. Final remedies have been selected at more than 1,134 sites, and design and implementation of the remedies is underway.

I.B.3. "Principles for Superfund Cleanup in the 21st Century"

The Superfund remedial program has been in existence for 25 years (December 11, 2005, marked the 25th anniversary of the passage of CERCLA). The reforms begun in 1993 to make the program faster, fairer, and more effective are fully implemented and are being further refined. The program has matured, and is being further influenced by several factors.

- There are more sites ready for construction than funds available to start work. In addition, construction is complete at many sites, requiring a new emphasis on long-term stewardship at these sites.
- Superfund cleanup processes now explicitly consider and ultimately support future site use and community land revitalization goals in ways that help ensure protection of human health and the environment.
- Alternative federal and state remediation programs such as the Brownfields program and state voluntary cleanup programs have matured and now handle many contaminated sites that previously would have been referred to the Superfund program, resulting in more complex, expensive sites coming to Superfund.

- Recent external evaluations of the program emphasize the need to put more of EPA's Superfund appropriation towards site cleanups.

In light of these factors the document, "Principles for Superfund Cleanup in the 21st Century," (http://www.epa.gov/superfund/action/120day/pdfs/principles.pdf) establishes principles for Superfund cleanups in the 21st century, for regions to apply as they address sites at all stages of the cleanup process. Currently, regions are implementing many of these principles, to varying degrees. The purpose of this document is to emphasize that for every non-federal site considered by the Superfund Remedial Program, regions must apply comprehensive planning to ensure that these principles are applied at appropriate stages.

a. Superfund Targets Sites that Pose Significant Risks

EPA needs to consider the scope of the total contaminated sites problem, what states are doing to address sites, and how EPA's efforts can complement state efforts. The Superfund program in the 21st century works with states to locate and address contaminated sites with the most serious human health and ecological risks. For contaminated sites considered for Superfund cleanup, regions, states, and other federal agencies conduct preliminary assessments (PAs) and site inspections (SIs) as needed to determine whether a response action is necessary and whether the site poses immediate potential risks to public health. The Superfund removal program addresses immediate risks to the public regardless of whether the site is placed on the National Priorities List (NPL). At sites requiring further investigation, Superfund will employ new tools and strategies to improve and streamline the site characterization process. Triad, a process for flexible, targeted sampling, helps provide a more focused strategy to characterize the site, and allow faster site decisions based on the results of real-time field analysis.

b. Regions Consider Alternative Cleanup Program Options and Funding Sources

For all identified high-risk EPA-lead sites, EPA regions will select the most appropriate cleanup program to ensure timely and protective cleanup and, if compatible, future beneficial uses of the site. Regional programs should consider the potential for innovative applications of other federal agency, state, and tribal authorities and resources, other EPA program authorities and resources, as well as potentially responsible party (PRP) resources. The region determines whether Superfund remediation is appropriate or whether another authority should address the site, e.g., Superfund Removal, Superfund Alternative Sites, state remediation, other federal agencies, RCRA Corrective Action, Brownfields, Leaking Underground Storage Tank (UST), Clean Water Act, Great Lakes Legacy Act, Toxic Substances Control Act, and Safe Drinking Water Act. Superfund coordinates effectively with these programs, and maintains systems to ensure that referred sites are addressed in a timely and appropriate manner.

c. Appropriate Sites are Listed on the NPL

Sites continue to be listed on the National Priorities List (NPL). EPA primarily uses the Hazard Ranking System (HRS) to determine which sites to propose on the NPL. Of those sites, EPA proposes the most appropriate sites first to help manage resources. Some factors EPA considers in prioritizing NPL candidate sites include the risk to human health and the environment, need for urgent response, maintenance of a strong enforcement program, leverage of other cleanup programs, support for listing from state, tribes, and communities, and program management considerations.

d. Cleanup Decisions Consider Future Reuse of Sites

At every site being addressed through CERCLA authority, regions should work with its partners to fully explore and consider future land use assumptions in cleanup decisions. While cleaning up sites and making them protective of human health and the environment, regions should continue to employ processes, tools, and information systems that better enable communities to communicate their future land use preferences and plans. Integrating realistic assumptions of future land use into Superfund response actions is an important step toward facilitating the beneficial reuse and revitalization of sites following cleanup.

e. Cleanup Decisions are Based on Sound Science and Utilize Innovative Technologies

Superfund continues to be in the forefront in developing new science and technology. Superfund risk assessment and risk management decisions utilize the most current peer-reviewed science. Use of innovative technologies is facilitated through cost and performance information made available from Superfund and other federal, state, and private sector clean up efforts. The program also works closely with its science partners (Office of Research and Development (ORD), National Institute of Environmental Health Sciences (NIEHS), Agency for Toxic Substances and Disease Registry (ATSDR), and the Hazardous Substance Research Centers) to ensure all the research activities funded by Superfund are focused on priority removal/remediation needs, are well coordinated among all the groups, and utilized in the field as soon as possible. The National Decontamination Team will be responsible for resolving the difficult technical issues involved in decontamination of buildings, public infrastructures, and environmental media in the aftermath of a weapons of mass destruction event or other nationally significant event.

f. Superfund Pursues "Enforcement First"

Superfund continues to emphasize an "enforcement first" strategy and aggressively uses all its enforcement tools, including Unilateral Administrative Orders, Administrative Orders, and Consent Decrees. EPA will look for PRPs throughout the removal and remedial processes, and pursue PRPs identified later in the process for an appropriate portion of the site work or costs. EPA actively pursues liable, viable PRPs for performance of work and cost recovery and establishes and manages special accounts throughout the cleanup process to minimize the need for Fund money at the site. EPA's financial assurance arrangements protect against the risk of default by a highly liable party on closure or cleanup obligations. EPA monitors compliance with financial assurance requirements in CERCLA cleanup obligations and ensures, where appropriate, financial assurance provisions are included in new enforcement agreements requiring CERCLA cleanup work.

g. Mega-sites are Subdivided for Appropriate Management

Mega-sites (large, complex and costly sites in which total cleanup costs are expected to equal or exceed $50 million) are subdivided for effective management. The best approach for delineating each subdivision is determined by a number of factors, including type and severity of risk, other programs that might contribute to the cleanup, and anticipated operable units. As in the case of less complex sites, potential reuse and cleanup options factor into systematic planning and field activities that may have a role in subdividing the sites. Such planning takes place before the site or a portion of the site are considered for NPL listing, and enables EPA to refer to the NPL those portions of the site that must be handled by Superfund. Coordination of multiple cleanup programs operating at such mega-sites is handled by an oversight group with local, state, and federal agency representatives. Assistance grants are available to the communities to help them participate meaningfully. The use of consistent performance measures by the Superfund, RCRA Corrective Action, UST and Brownfields programs facilitates monitoring the progress in each of their portions of the mega-site. The Superfund Prioritization Panel, which makes funding recommendations for EPA funded remedial actions, will annually review funding going towards mega-sites for potential cost saving measures.

h. New EPA Funding for Remedial Actions is Selected Based on Prioritization Factors

The Superfund Program reviews sites that are ready for construction using criteria based primarily on risk. While high risk sites will always receive immediate attention, the program will continue to monitor and evaluate sites that do not receive funding, and look for alternative approaches to address these sites. EPA will make public its funding decisions implementing cleanups.

i. Work Plans are Developed for Each Site in Construction

A multi-year work plan is developed for sites in construction in consultation with the community. The plan identifies each major remedial action that needs to take place on each operable unit, the time necessary to complete that action, and the estimated cost. The plan should address anticipated costs through construction of the final remedy to post-construction monitoring, O & M, and the first 5 year review. In site planning, EPA has non-cost considerations as well, such as site redevelopment potential and innovative technology deployment which may be relevant as the site progresses through the investigative and cleanup phases.

j. Superfund Addresses Long-Term Stewardship Needs

The Superfund Program of the 21st century supports a vigorous post construction completion program to ensure that remedial actions provide for the long-term protection of human health and the environment and return sites to beneficial uses. Regions periodically review remedies involving long-term operations (e.g., caps on waste and ground water restoration) using an Environmental Management Systems (EMS) approach involving a continuous cycle of planning, implementing, reviewing, and improving practices at each site. As a result of these periodic reviews, regions improve performance and reduce operating costs of remedies while assuring continued protectiveness. Regions continue to document the performance and protectiveness of remedies in the five-year reviews conducted at every site in which contamination was left in place. Regions also monitor institutional controls implemented by state and local governments as part of the remedy.

k. The Superfund Database Supports the Program and Meets a Broad Range of Information Needs

The Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) is fully modernized to report all essential information on program and enforcement performance, including the new measures designed for consistency among all site cleanup programs. These new measures report on interim milestones such as site assessment, remedy selection, human exposures and groundwater under control, as well as cleanup completed and acres of land ready for reuse. The measures also track certain enforcement milestones as well as site cleanup work performed by PRPs and by using Fund money. Regions keep CERCLIS up-to-date and accurate to support program planning and accomplishments reporting, and so that most Congressional and press inquiries can be answered using CERCLIS. CERCLIS is appropriate for meeting additional remedial and removal program requests, such as the Office of Management and Budget's (OMB) PART review.

l. The Superfund Program Actively Evaluates Whether its Program is Operated Efficiently

The Superfund Program ensures that all its resources are efficiently and effectively utilized. Periodic reviews of Superfund dollars and Full-Time Equivalent (FTE) employees will ensure Superfund's focus on protection of human health and the environment. Annual deobligation of unneeded project funds from EPA contracts and agreements with other federal agencies and states, innovative contracting approaches for Fund-lead cleanups, and close monitoring of reimbursable funds from state Superfund contracts and PRP special accounts provide additional resources to fund new start remedial actions.

The Superfund Program Offices (OSRTI, OECA, OEM, FFEO, and FFRRO) maintain a robust program evaluation function designed to assess removal and remedial program performance to ensure that critical program goals, outputs and outcomes are achieved in an effective and efficient manner. Strategic trends evaluation is used to identify emerging environmental problems and workforce needs, and to advise all the OSWER cleanup programs on appropriate programmatic or policy responses.

m. Superfund is a Model of Public Outreach and Involvement

Superfund takes seriously its responsibility to proactively engage stakeholders at each site in an early and meaningful way that is sensitive to each community's unique character. Stakeholder involvement is an integral part of cleanup planning and implementation, as directed and managed by the site's Community Involvement Plan. Access to the cleanup decision-making process is sustained throughout all stages of site work, not just CERCLA-mandated milestones. Superfund provides Community Involvement Coordinators (CICs) to work directly with communities, and encourages the formation of stakeholder fora called Community Advisory Groups. Superfund uses public meetings, fact sheets and local information repositories to share site-related information in person, through the mail and through the Web, and encourages public feedback. To help the public understand the technical aspects of Superfund's cleanup proposals and site work, Superfund provides Technical Assistance Grants at NPL sites and funds Technical Outreach Services for Communities at non-NPL sites. Superfund staff provide responses to public inquiries about site work. In particular, Superfund staff ensure that public participation documents, like the Proposed Plan, are of the highest quality in terms of clarity, completeness, ease of use and plain language. At the national level, Superfund provides information on program progress, measures of success, and profiles of each site. In the absence of CICs, Superfund Remedial Project Managers manage the community involvement process. Planning, training and exercises are conducted by EPA in close coordination with state and local partners. Where Federal facilities have the lead for cleanup, they follow the full suite of Superfund public involvement activities listed above, except that the Department of Defense's stakeholder forum is called the Restoration Advisory Board (RAB), and the Department of Energy's stakeholder forum is called a Site-specific Advisory Board (SSAB).

n. Superfund Provides State-of-the-Art National Emergency Preparedness and Response

EPA's core emergency response program responds quickly and effectively to chemical, oil, biological, and radiological releases. Established coordination mechanisms enable timely and effective response to simultaneous, large-scale national emergencies. All of EPA's preparedness and response programs in the regions consistently implement the Agency's National Approach to Response. EPA's On-Scene Coordinators are equipped with state-of-the-art equipment and training, and use the latest scientific methods for detection, analysis and response. Agency emergency response will manage large volumes of data actively and consistently using consistent crisis and information management systems.

I.C. SUBJECT MATTER EXPERTS

The following exhibit identifies the subject matter experts for Chapter I Introduction.

EXHIBIT I.1. SUBJECT MATTER EXPERTS

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To see a complete list of data sponsors, please refer to Data Sponsor List in Appendix E.

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