

Superfund Program Implementation Manual FY 04/05

Appendix B: Response Actions

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Appendix B Response Action

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APPENDIX B RESPONSE ACTIONS

B.A CURRENT PROGRAM PRIORITIES

B.A.1 Protect Human Health and the Environment

Protection of human health and the environment remains the highest priority for the Superfund Program. EPA will continue to address the worst sites first while balancing the need to complete response actions at sites. The Agency will ensure that available resources are disbursed in a fiscally sound manner. Maximizing Potentially Responsible Party (PRP) involvement remains a high priority.

a. Removal Actions

The goal of EPA's emergency response and removal program is to provide quick response to immediate threats to public health and the environment from releases of hazardous substances whenever and wherever they occur.

EPA will continue to enhance its emergency response infrastructure through procurement of state-of-the-art response equipment and continued training and exercising of response personnel. EPA will also ensure that the appropriate resources and contract vehicles are available to conduct necessary removal actions.

b. Homeland Security

EPA played a crucial role in response to the terrorist attacks of September 11, 2001, particularly, through its emergency response program. In FY 2004, the Agency will improve its ability to respond effectively to terrorist-related chemical, biological, and radiological incidents. These enhancements will be achieved through continued improvement of national coordination and decision-making for large-scale incidents; improved field response capabilities in EPA Regions through better-trained responders and improved specialized equipment; improved capabilities of National Response System (NRS) special forces such as the Environmental Response Team (ERT) and the National Decontamination ("Decon") Team; and improved coordination with and enhancement of other response agencies.

In FY 2004 Homeland Security activities will continue to concentrate on implementing recommendations in the September 11 Lessons Learned Report. Efforts will include improving the operations of the National Incident Coordination Team which serves that EPA focal point for coordinating response efforts and handling cross-program and multi-program issues before and during terrorist incidents. The program will also continue to upgrade the EPA Emergency Operations Center and coordinate development of a comprehensive EPA Continuity of Operations/Continuity of Government plan that can be immediately activated when a catastrophic emergency occurs.

EPA's field response capability relies on a support infrastructure including specialized equipment, equipment inventories, and laboratory support. The Agency will continue to build on its equipment support by identifying state-of-the-art detection, monitoring, and response equipment designed to address chemical, biological, and radiological agents. Also, EPA will build inventories of standard response equipment such as personal protective gear to ensure that it is prepared to respond to multiple incidents. Equipment will be maintained and replaced as necessary to ensure the Agency has the best technology available.

EPA's field responders and National Response System special forces require extensive training in a variety of response-related areas, including scientific and technical training for detection, analysis, and response to chemical, biological, and radiological agents; and training in incident command system response management processes.

Training courses will be developed and implemented for different levels of response experience and involvement, including refresher courses for senior, experienced responders; in-depth training for newer responders in both scientific and response management areas; and training for all responders in state-of-the-art response techniques and emerging chemical, biological, and radiological threats.

EPA's Environmental Response Team (ERT) will continue to provide specialized field support to Regional responders, including specialized air monitoring, health and safety support, and other scientific and technical support. ERT will continue to enhance its capabilities in its Edison, New Jersey, Cincinnati, Ohio, and Las Vegas, Nevada, locations to ensure that they are ready at all times to quickly and effectively meet the specialized field support needs of EPA's responders, including those responses to terrorist incidents with biological, chemical, and radiological agents.

EPA will continue the development of the National Response Decontamination Team (Decon Team) that provides unique, immediate response capabilities to safely and effectively support decontamination activities related to chemical, biological, and radiological terrorism events. While focused domestically, the Decon Team may respond worldwide delivering scientific and engineering expertise for the decontamination of buildings, building contents, public infrastructure, indoor environments and the associated environmental media. The primary function of the Decon Team is to support EPA OSCs conducting or overseeing response activities under the authorities of the National Contingency Plan (NCP) at the scene of the aftermath of a weapon of mass destruction (WMD) event. The Decon Team is designed to integrate with and operate from within incident command structures, along with and complementing other Special Forces. When not fully engaged, this team is devoted to preparedness activities related to the team's primary function.

EPA's capability to respond effectively to chemical, biological, and radiological incidents will be measured through the Core Emergency Response (Core ER) program. This continued enhancement in EPA's Regional response capabilities will cover all aspects of the Core ER program, including Regional Response Centers, transportation, coordination with backup Regions, health and safety, delegation and warrant authorities, response readiness, response equipment, identification clothing, training and exercises, and outreach. The Agency will establish measurable improvement goals in Core ER and will work toward that improvement through exercises and other program enhancements.

EPA has established a criteria of excellence through the structure of the Core ER program. While EPA is currently prepared to respond to chemical, biological, and radiological incidents, improvement in the emergency response and homeland security readiness measure will demonstrate an increased ability to respond quickly and effectively to national-scale events. The FY 2004 Core ER target is to improve emergency response and homeland security readiness by 10% from the FY 2003 baseline performance.

c. Pipeline Management Review/RA Construction

The Agency initiated the Superfund Pipeline Management Review (PMR) during FY 2002 to evaluate and address the reduction in construction completions during FY 2001 and the potential shortfall of remedial action funding in FY 2002 and the out years. The purpose of the PMR is to ensure that Agency resources are properly focused to achieve maximum results, including protection of human health and the environment, as well as, progress towards completion of response actions at sites.

As of January 1, 2003, Superfund has 1,499 final and deleted sites on the NPL, of which approximately 650 require response actions (also called construction) to achieve protection of human health and the environment. As the program has matured, more sites have advanced to the construction phase. Superfund construction projects are technically complex and costly, and the growth in the number, size, duration and cost of these projects over time has resulted in a backlog of construction projects awaiting funding. Superfund cleanups directly support the Agency goal of ensuring that the Nation's land is protected.

Construction completion has been the primary performance measure for the Superfund program and the Agency remains committed to completing construction at Superfund sites. The program achieved 42 construction completions during FY 2002, for a total of 846 completions since the inception of the program. EPA projections indicate that construction completion accomplishments are likely to remain at approximately 40 during FY 2004. Since the beginning of the program, the Agency has averaged 42 construction completions per year. Through the PMR, EPA is increasing the precision with which it tracks construction completion candidates and projects future construction completion achievements, extending the planning horizon for making funding decisions for Superfund construction projects, and implementing new policies and actions to maximize the use of resources available for construction. The Agency has moved to a three year planning cycle to identify and track construction completion candidate sites. EPA continues to closely follow site progress and identify potential critical points as sites move toward construction completion.

Starting in FY 2003, as part of the three year cycle for construction completion planning and tracking, the Agency will regularly conduct detailed and comprehensive reviews of construction completion candidates for the current year and the following two years. The information collected from the discussions will be added to the tracking system to better follow site progress, identify potential problems, and sharpen projections of future construction completions.

Funding for Superfund construction projects is critical to achieving risk reduction and construction completion measures. Although funding levels for the program have remained relatively stable in recent years, the cost of the Superfund construction projects underway and those awaiting funding is increasing. As a result, a backlog of projects ready to begin construction; but awaiting funding has developed.

Through the PMR, the Agency is continuing the following internal actions to address the shortfall in funding:

1. Review the scope, budget and schedule of ongoing construction projects to ensure available resources are directed where they are immediately needed,
2. Review construction start candidates to ensure that sites that present an immediate risk to human health are addressed, while balancing the programmatic need to complete construction at other sites,
3. Emphasize “enforcement first” to maximize the involvement of responsible parties to conduct cleanups, and
4. Aggressively pursue alternative sources of funding to supplement annual appropriations. Alternate sources of funds include unexpended funds in program contracts and other funding agreements, and responsible party settlement resources that are available and can be used to finance response actions. EPA will use deobligated funds for remedial work at high priority sites.

The first priorities for response funding are classic emergencies and actions necessary to address immediate threats to human health. Ongoing RAs, mixed funding, and mixed work projects receive priority for funding over new cleanup work. New Fund-financed cleanup work (with the exception of emergency and time-critical removal actions) will be subject to priority ranking by the National Risk-Based Priority Panel and will be screened to ensure actions have been taken to compel all appropriate PRPs to conduct the cleanup. The Panel consists of representatives from each region and HQ (OSRTI and OSRE) and utilizes a risk-based environmental priority setting approach. New cleanup work is funded based on actual or potential risks to human health and the environment as well as the need to maintain construction progress. Determination on whether a project represents new or ongoing work will be made by the Panel. New cleanup work consists of large removal actions that exceed funding levels

available within a region's baseline removal budget, as well as cleanup construction activities at sites. The panel meets one or more times a year for evaluation of projects.

d. Post Construction

As a result of the increase in construction completion sites, the post construction workload required to ensure that the Superfund response actions remain protective for human health and the environment also is increasing. Post construction encompasses a number of discrete but related activities including: Five Year Reviews; implementation, monitoring and enforcement of institutional controls; operation and maintenance and long-term response actions; optimization of remedies; and deletion of sites from the NPL. EPA, states, Federal facilities, PRPs, local governments and communities all play an integral role in performing post construction activities. External stakeholder interest in post construction activities is high. The EPA Inspector General has completed reviews of the program's Five Year Review performance and corrective actions have been identified and implemented. Resources for the Future (RFF) and other external organizations have completed research studies on long term stewardship. In its report "Superfund's Future: What Will It Cost?", RFF is critical of the Agency's post construction efforts, particularly in the quality of Five Year Review reports and the implementation and management of institutional controls.

Five Year Reviews are required by statute and program policy, generally when residual contamination remains on site after cleanup. Five Year Reviews provide an opportunity to evaluate remedies, correct problems or deficiencies, and adjust operations and maintenance where necessary. Five Year Reviews have been completed at approximately 1000 sites as of October 2002. Between 150 and 180 reviews per year are scheduled over the next several years. The Agency committed to eliminate the backlog of overdue reviews by the end of 2002 and achieved this goal. Revised guidance on conducting Five Year Reviews was issued in June 2001 and training has been provided to all regions with the goal of improving the quality of the Five Year Reviews and the resulting reports.

Institutional controls are administrative and/or legal mechanisms intended to minimize the potential for exposure to contamination and protect the integrity of a remedy. Examples of institutional controls include zoning restrictions, excavation and building permits, easements, covenants, deed notices, and advisories. Although institutional controls are recognized as critical remedy components, the challenge is that they are often implemented, monitored and enforced by an entity other than those responsible for the cleanup. As a matter of policy, institutional controls are necessary if a site cannot support unrestricted use and unlimited exposure due to residual contamination and/or the presence of engineered remedy components that may be damaged by uncontrolled future site activities. Institutional controls can be used at any point in the cleanup, however, implementation frequently lags behind the completion of physical remediation. Institutional controls do not need to be in place to achieve construction completion, however, delays in implementing institutional controls will impact the ability to delete sites from the NPL. Guidance has been developed to aid with the identification, evaluation and selection of institutional controls and guidance is being developed on the implementation, monitoring and enforcement of institutional controls; estimating the costs of institutional controls; and planning for institutional controls. In addition, materials for community stakeholders and an institutional control tracking system are under development.

Operation and maintenance (O&M) is an important component of a Superfund response to ensure that the remedy performs as intended. Actions range from maintaining engineering containment structures (e.g., landfill covers) to operating groundwater remediation systems. O&M is the responsibility of the Federal facility, PRP or state. EPA is responsible for assuring that the work is adequately performed for the life of the project. One exception is for Fund-financed groundwater remediation systems where EPA retains operating responsibility for up to ten years (called Long Term Response Actions (LTRA)) prior to transferring the system to the state. Many sites are nearing the end of the ten year period and regions must prepare these sites for transfer. A guidance summarizing best practices is under development.

Once groundwater remediation systems have been operating, opportunities may exist to optimize or more efficiently operate the system. EPA has conducted pilot optimization studies and preliminary results indicate a potential to improve system performance and reduce costs. Once implemented, optimization reviews should provide assurances that these systems are operating efficiently prior to transfer to the state for long term operations. Optimization protocols also can be made available to PRPs and Federal facilities.

Sites can be deleted from the NPL once all response actions are complete, including implementation of institutional controls, and all cleanup levels have been achieved. As of October 2002, 265 sites were deleted from the NPL. Expeditious deletion of sites is a post construction emphasis. In FY 2003 and beyond, EPA plans to delete 30 sites per year.

e. Superfund Alternative Sites

The category of “Superfund Alternative (SA) sites” has been identified in OSWER 92-08.0-17, “Response Selection and Enforcement Approach for Superfund Alternative Sites,” a directive issued on June 24, 2002, by OSRE and OERR, now OSRTI. This “SA” designation is an important component of the work of the Superfund program, with an increased number of sites addressed as SA sites. In order to provide accurate reporting of work and appropriate credit to EPA Regions for cleanup of non-NPL sites as well as NPL sites, SA sites have been incorporated into the SPIM.

For purposes of this appendix, references to remedial pipeline activities [i.e., Remedial Investigation (RI), Feasibility Study (FS), Combined RI/FS, Remedial Design (RD), Remedial Action (RA)] at Superfund Alternative sites apply only to those Fund-lead and PRP-lead activities at sites that the region has determined would achieve a Hazard Ranking System (HRS) score greater than or equal to 28.5. Such response actions must be carried out in a manner not inconsistent with the National Contingency Plan (NCP). Sites proposed to the NPL are included in this category. Regions should maintain adequate site documentation to support the ‘Superfund Alternative’ designation based on the criteria referenced above. Regions should seek PRP-lead for all remedial pipeline activities at Superfund Alternative sites; these sites must be PRP-lead for RAs. Credit for PRP-lead remedial pipeline activities at Superfund Alternative sites will only be given for activities conducted pursuant to enforceable order or agreement. Sites that meet these criteria should be identified in WasteLAN using the special initiatives indicator of “Superfund Alternative.”¹

¹The measures outlined below for remedial pipeline activities at Superfund Alternative sites are established with the intent of capturing environmental progress previously not accounted for in existing reporting systems. Their establishment is not intended to affect established priorities for response resource allocation.

B.A.2 Maximize Program Effectiveness and Efficiency

To maximize the effectiveness and efficiency of the Superfund program during FY04/05, EPA HQ and regions will work to improve the implementation of the program based on the following processes.

a. Innovative Technologies

Environmental technology development and commercialization are a top national priority for this Administration. EPA is committed to encouraging the use of new or innovative technologies for contaminated soils and groundwater. Over the next decade, the Superfund program and other Federal agencies will spend billions of dollars each year to cleanup sites contaminated with hazardous wastes. This commitment will require the use of a wide range of site remediation processes. While existing technologies that characterize and remediate contaminated sites have been successful, the investment in site clean up provides new opportunities for the development of less expensive and more effective solutions.

The Agency has made considerable progress using new technologies in Superfund. More than half of the recent remedial cleanup decisions for source control call for technologies that were not available when the law was reauthorized in 1986. The large cleanup needs remaining in EPA programs, as well as the formidable future requirements for state and other Federal agencies, provide a continuing impetus to find more effective and less costly solutions.

The unique and varying problems posed by contaminated sites present a challenge that requires knowledge and techniques from different technical disciplines. The solutions to these problems are not to be found in existing design manuals or standards of practice. Rather, EPA is developing procedures as it goes along by creatively applying technologies from various industrial applications to unique site conditions. This field of hazardous site remediation is rapidly evolving and requires considerable effort to remain informed of recent developments.

EPA is attempting to expand the participation of responsible parties in technology development by altering the Agency's historical role and working more closely with the private sector as a partner with shared objectives. Conventionally, EPA has been viewed primarily as a regulator, permit issuer, and enforcer. These functions have kept it at arms' length from industry, which tended to view the Agency with a negative bias. EPA has been working to build new relationships with the private sector that are based on other EPA roles including technology broker, researcher, and grant maker. These cooperative efforts are expected to result in better- directed research and more joint demonstration projects. A number of significant collaborative endeavors in the areas of technology development and evaluation are currently under way.

The Agency is also very committed to the dissemination of information on technology development, evaluation and deployment. Electronic information resources offer the best hope for keeping pace with rapid developments in this field. The Clean-Up Information (CLU-IN) web site at <http://clu-in.org> offers waste professionals a rich source of current information on technologies and markets. The TechDirect monthly electronic-mail service offers subscribers up-to-date information on new remediation technology products and services developed by EPA.

Federal facility sites provide an excellent testing ground for assessing and demonstrating the use of innovative technologies. Many Federal facilities offer a number of benefits: sole responsible party; acknowledged liability; controlled sites; funding; and willingness. For these reasons, the Agency expects to see more public-private partnerships established at Federal facility sites.

b. Effective Contract Management

Good contract management is a Superfund priority, as well as an Agency-wide priority. In this regard, the Agency established a national workgroup to develop a new Superfund acquisition strategy for the year 2000 and beyond. The Contracts 2000 strategy builds upon the Long Term Contracting Strategy (LTCS) paradigm. The new strategy retains two key tenets of LTCS – a one-program approach and decentralization of contracts management to the regions – and keeps the LTCS contracts infrastructure in place.

The major goals of Contracts 2000 are: 1) balancing national consistency with regional flexibility; 2) introducing more competition into the contracting process; 3) increasing small, small disadvantaged, and women-owned business participation in the Superfund contracting program; 4) adopting new contracting vehicles and methods such as performance-based contracting, and fixed price contracting; and 5) developing “performance focused” statements of work for all of the follow-on contracts.

The Agency is currently in the implementation phase of the Contracts 2000 process. We have finalized national implementation plans for the START (Superfund Technical Assessment and Response Team), ERRS (Emergency and Rapid Response Services), ESS (Enforcement Support Services), ROC (Regional Oversight Contracts), and ESAT (Environmental Services Assistance Teams) contracts and developed a strategy for acquiring Superfund design and construction services when the current Response Action Contracts (RACs) expire starting in 2005.

c. Redevelopment

Superfund cleanups address real threats to public health and the environment and have been instrumental in returning sites to productive uses. In the last six years, EPA has become increasingly aware of the importance of fully exploring future use opportunities at Superfund sites with its partners before selecting and implementing cleanup remedies. This shift in thinking has resulted in Superfund sites, which were once thought to be unusable, being “recycled” back into productive use. EPA is encouraging the reuse of Superfund sites in several ways, such as making cleanup decisions that are consistent with intended reuse and limiting the liability of interested developers. Large and small businesses, shipping terminals, community libraries, sports fields, and golf driving ranges are just a few of the many ways in which Superfund sites are being reused following their cleanup.

The Superfund program is undertaking a nationally coordinated effort — the Superfund Redevelopment Program (SRP) — to facilitate the return of Superfund sites to productive use. Announced on July 23, 1999, this program builds on the success noted above, as well as on the achievements of the Superfund reforms focused on economic redevelopment. In carrying out this program, the priority remains the protection of human health and the environment. While operating within the current regulatory and statutory framework, EPA will take full advantage of its administrative flexibility in implementing SRP. The Superfund Program remains committed to accelerating the pace of cleanups without compromising its “enforcement first” approach, which includes the recovery of costs from those responsible for the pollution. SRP will focus on the activities that support remedy selection and design. EPA does not anticipate reopening formal decisions already made, such as RODs and enforcement orders and decrees.

Under SRP, pilot projects were selected to enhance the involvement of local governments in determining the potential future uses of Superfund sites and to demonstrate tools that can be used to facilitate redevelopment. Ten pilot sites were selected during FY 99, forty additional pilots were selected during FY 00, and 19 more sites in FY 02. All pilots are being monitored and evaluated for lessons learned and potential future program enhancements. The other components of SRP include: revisions to policy and guidance, where needed, and new guidance and technical tools; outreach to share information about site reuses, the tools that can help stakeholders repeat those successes at other sites, and the reuse potential of specific sites; and partnerships with other public and private entities with resources or other capabilities to support the redevelopment of the sites. (Please see the Superfund

Redevelopment web site at www.epa.gov/superfund/programs/recycle/index.htm. The reuse of Superfund sites is taking place now, and with a coordinated national effort, EPA can accomplish even more.

d. Reforms

Since 1993, EPA has launched three rounds of reforms to Superfund to address criticisms raised by affected parties and to improve the pace, cost, and fairness of the program. Each set of reforms consists of various initiatives and pilots focusing on changes to the program that can be implemented within the existing statutory framework. These reforms were intended to accomplish different goals, ranging from strengthening the program to testing concepts developed during Congressional debate on reauthorization legislation. The reforms have helped to improve the overall performance of the program. EPA has effectively reduced the pursuit of small volume (i.e., de minimis and de micromis) contributors by private parties, increased public involvement in the cleanup process by establishing Community Advisory Groups and promoting the availability of Technical Assistance Grants, promoted economic development and environmental justice with Brownfields and job training initiatives, and saved in excess of \$1 billion in estimated response costs through the National Remedy Review Board and the Remedy Update Reform. EPA has streamlined cleanups, increased fairness and made common sense improvements to Superfund. As a result of all the reforms, Superfund is a dramatically different program today than it was at its inception.

B.B. FY 04/05 RESPONSE TARGETS AND MEASURES

B.B.1. OVERVIEW OF FY 04/05 RESPONSE ACTIONS TARGETS/MEASURES

The Superfund Comprehensive Accomplishments Plan (SCAP) is used by the Assistant Administrator for the Office of Solid Waste and Emergency Response (AA OSWER), Assistant Administrator for the Office of Enforcement and Compliance Assurance (AA OECA), and senior Superfund managers to monitor progress each region is making towards achieving the Government Performance and Results Act (GPRA) annual performance goals. In addition, SCAP will continue to be used as an internal management tool to project and track activities that contribute to these GPRA goals and support resource allocation. The program will set national goals based on historical performance and performance expectations within a limited budget for the performance goals in GPRA and track accomplishments in the activities contributing to those goals. Regions should continue to plan and report accomplishments in WasteLAN as they have traditionally.

To more clearly reflect the relationship between GPRA and the SCAP process, GPRA annual performance goals and measures and program targets and measures are defined as follows:

- **GPRA Annual Performance Goals (APG) and GPRA Annual Performance Measures (APM)** - The Agency's Annual Plan describes the specific annual performance goals, annual measures of outputs and outcomes, and activities aimed at achieving the performance goals that will be carried out during the year. APGs are the specific activities that the Agency plans to conduct during the fiscal year in an effort towards achieving its long-term strategic goals and objectives. APMs are used by managers to determine how well a program or activity is doing in achieving milestones that have been set for the year. The annual performance goals will inform Congress and Agency stakeholders of the expected level of achievement for the significant activities covered by the GPRA objective. The goals are a subset of the overall planning and budgeting information that has traditionally been tracked by the Superfund program offices.
- **Program Targets and Measures** are activities deemed essential to tracking overall program progress. Program targets are used to identify and track the number of actions that each region is expected to perform during the year and to evaluate program progress. **For Five Year Reviews, program targets are used to identify and track the specific number of sites, not actions. These sites must be targeted site specifically and cannot be substituted for other sites.** Program measures are used to show progress made in achieving program priorities.

The following pages contain, in pipeline order, the definitions of the FY 04/05 removal and remedial activities, GPRA annual performance goals, GPRA and program measures, and removal and remedial project support activities. Exhibit B.1 displays the full list of removal and remedial activities defined in this Appendix. Exhibit B.4, at the end of this Appendix, lists the subject matter experts for each relevant subject area.

B.B.2. SUPERFUND DURATIONS [To be updated later]

The Superfund program has tracked remedial pipeline durations for several years in the Superfund Senior Management Reports as part of Superfund progress evaluation. As program management emphasis shifts from administrative progress to more comprehensive measurement of program progress, OSRTI will track additional durations besides the remedial pipeline durations. These durations include: Engineering Evaluation/Cost Analysis (EE/CA) duration; Expanded Site Inspection/Remedial Investigation (ESI/RI) duration; removal duration; average duration between proposed listing to first removal or remedial action; and average duration from action memorandum to first removal completion. In FY 04/05, OSRTI will track the average action and site durations presented below. These durations are not SCAP measures; they are presented here for informational purposes only. HQ is responsible for calculating and publishing the durations in the Superfund Senior Management Reports; however, regions are responsible for entering and maintaining accurate data from which durations can be derived.

The durations only cover non-Federal actions and are calculated based on actual dates. In addition, they do not include takeovers (within actions) or phased actions. These durations are tracked by the response and enforcement programs.

- Average Remedial Investigation/Feasibility Study (RI/FS) Duration
- Duration from Record of Decision (ROD) to Remedial Design (RD) Start
- Duration from ROD to Remedial Action (RA) Start

**EXHIBIT B.1
RESPONSE ACTION ACTIVITIES**

ACTIVITY	GPRA		PROGRAM	
	APG	APM	Target	Measure
Remedial Investigation (RI) Starts (NPL & Superfund Alternative)				✓
Feasibility Study (FS) Starts (NPL & Superfund Alternative)				✓
Combined RI/FS Starts (NPL & Superfund Alternative)				✓
Treatability Studies				✓
Start of Public Comment Period (Proposed Plan to Public) (NPL & Superfund Alternative)				✓
RI/FS Duration (NPL & Superfund Alternative)				✓
Decision Document Developed				✓
Final Remedy Selected/Final ROD Authority		✓		
Engineering Evaluation/Cost Analysis (EE/CA)				✓
Removal Starts	✓			
Removal Completions				✓
RD Start (NPL & Superfund Alternative)				✓
RD Completion (NPL & Superfund Alternative)				✓
RA Start (NPL & PRP-lead Superfund Alternative)				✓
RA Contract Award (NPL & PRP-lead Superfund Alternative)				✓
Start of On-Site Construction				✓
Operational and Functional (O&F)				✓
Completion of a Response Action/Activity (NPL & PRP-lead Superfund Alternative)				✓
NPL Site Construction Completions	✓			

NOTE: Accomplishments are updated and reported on a daily basis. Selected National reports are run quarterly.

EXHIBIT B.1 (cont'd)
RESPONSE ACTION ACTIVITIES

ACTIVITY	GPRA		PROGRAM	
	APG	APM	Target	Measure
Long-Term Response Action (LTRA & PRP LR) (NPL & PRP-lead Superfund Alternative)				✓
Operation and Maintenance (O&M)				✓
Cleanup Goals Achieved				✓
NPL Site Completions				✓
Five-Year Reviews			✓	
Partial NPL Deletion				✓
Final NPL Deletion			✓	
Sites with Land Ready for Reuse		✓		
Acres at Sites with Land Ready for Reuse		✓		
Human Exposure Under Control		✓		
Migration of Contaminated Groundwater Under Control		✓		
Populations Protected				✓
Cleanup Technologies Applied				✓
Support Agency Assistance				✓
Technical Assistance				✓
Pre-Design Assistance				✓

NOTE: Accomplishments are updated and reported on a daily basis. Selected National reports are run quarterly.

B.B.3 Record of Decision (ROD)

A ROD is prepared after completion of public comment period on the FS and proposed plan for an early action (remedial authority) or long-term response action. The ROD identifies the Agency's selected remedy.

a. ROD Changes

After a ROD is signed, new information may be generated that could affect the remedy selected. Three types of changes can occur: Other Remedy Change, Explanation of Significant Differences, and ROD Amendment. All of these documents need to be sent to the below HQ address within 5 (five) days after signing:

Decision Document Coordinator
US EPA (MC 5202G) 12th Floor
Crystal Gateway 1
1235 Jefferson Davis Hwy
Arlington, VA 22202

i. Other Remedy Changes Document Non-Significant Remedy Changes

Non-significant remedy changes fall within the normal scope of changes occurring during the Remedial Design/Remedial Action (RD/RA) or limited RA. These changes typically result from value engineering. This may cause minor changes in the type/cost of materials, equipment facilities, services, and supplies. When such changes do not significantly affect the scope, performance, or cost of the remedy, they are considered minor or non-significant.

Other Remedy Changes should be documented in a Note to File or Memorandum to File, titled "Other Remedy Change." Copies of these documents shall be placed into the Administrative Record (AR), and need to be mailed to the above address at HQ. Since the document is placed into the AR, it is available for public review. A formal public comment period, public meeting and responsiveness summary are not needed. An Other Remedy Change is not a new ROD and should not be coded as such in WasteLAN. It should be entered as a SubAction to the ROD (Action Name = Record of Decision and SubAction Name = Other Remedy Change). Other Remedy Change data are entered into WasteLAN at the time the document is signed. **The date the Other Remedy Change at a NPL or Superfund Alternative site is signed by the designated Regional Official or the AA OSWER is reported as the actual completion date (Actual Complete) of the Other Remedy Change SubAction (Action Name=Record of Decision and SubAction Name=Other Remedy Change).** Response action and cost data only need to be entered when they change. Other Remedy Changes are tracked as an internal reporting measure.

ii. Explanation of Significant Differences (ESDs) Document Significant Changes to a Component of a Remedy

Significant changes to a component of a remedy generally are incremental changes to the hazardous waste approach selected for the site (i.e., a change in timing, cost and implementation). These changes do not fundamentally alter the overall approach intended by a remedy. When significant changes are made to a component of a remedy, an Explanation of Significant Differences (ESD) should be prepared.

A copy of the ESD is placed into the AR, and a copy needs to be mailed to the above address at HQ. The ESD is made available to the public for review. A formal public comment period, public meeting, and responsiveness summary are not required. While the ESD is being prepared and made available to the public, response activities should continue. An ESD is not a new ROD and should not be coded as such in WasteLAN. It should be entered as a SubAction to the ROD (Action Name = Record of Decision and SubAction Name = Explanation of Significant Dif). ESD data are entered in WasteLAN at the time of ESD signature. **The date the ESD at a NPL or Superfund Alternative site is signed by the designated Regional Official or the AA OSWER is reported as the actual completion**

date (Actual Complete) of the ESD SubAction (Action Name = Record of Decision and SubAction Name = Explanation of Significant Diff). Response action and cost data only need to be entered when they change. ESDs are tracked as an internal reporting measure.

iii. ROD Amendments are Fundamental Changes to the ROD

When the hazardous waste management approach selected in the ROD is reconsidered, it is a fundamental change. For example, the innovative technology originally selected in the ROD did not perform satisfactorily during the pilot scale testing, and a decision is made to switch to another remedy. This would represent a fundamental change. If, as a result of PRP negotiations, the remedy in the ROD is changed from incineration to bioremediation, this also represents a fundamental change. When such fundamental changes or amendments are made to a remedy, the ROD process (revised proposed plan, public comment period, public meeting, responsiveness summary, and amended ROD) should be repeated. The amended ROD must be placed in the AR and a copy must be mailed to the above HQ address. A fundamental change to the ROD should be recorded as a ROD amendment SubAction in WasteLAN (Action Name = Record of Decision and SubAction Name = ROD Amendment). **The date the designated Regional Official or the AA OSWER signs the amended ROD at a NPL or Superfund Alternative site should be recorded in WasteLAN as the actual completion date (Actual Complete) of the ROD Amendment SubAction (Action Name = Record of Decision and SubAction Name = ROD Amendment).** Regions must enter the actual completion date of the ROD Amendment along with the Alternative Name, Media Name, Media Type, Selected Response Actions, and cost data. ROD Amendments are tracked as an internal reporting measure.

b. RODs Requiring No Physical Construction

At some NPL sites, EPA may determine, through the Remedial Investigation/Feasibility Study (RI/FS) (or other means), that no physical construction is necessary to protect human health and the environment. Such a determination may be documented in no action/no further action RODs, including RODs that only require monitoring, and Limited Action RODs requiring monitored natural attenuation or institutional controls only.

These ROD events should be coded into WasteLAN as follows:

- Action Name = Record of Decision;
 - Alternative Name
 - Media Name
 - Media Type (Air, Groundwater, Leachate, Liquid Waste, Other, Residuals, Sediment, Sludge, Soil, Solid Waste, Surface Waste); and
 - Selected Response Actions
- No Action RODs:
 - No Action
 - No Further Action
 - Monitoring

Cost data should be entered as 0 (zero)

- Limited Action RODs:
 - Natural Attenuation
 - Institutional Controls (Access Restriction, Access Restriction-Guards, Deed Restriction, Drilling Restriction, Fishing Restriction, Institutional Controls Not Otherwise Specified (N.O.S.), Land Use Restriction, Monitoring, Recreational Restriction, Revegetation, Swimming Restriction, and Water Supply Use Restriction)