

United States
Environmental Protection
Agency

Solid Waste and
Emergency Response

EPA 540-R-98-035
OSWER 9200.2-37P
PB98-963250

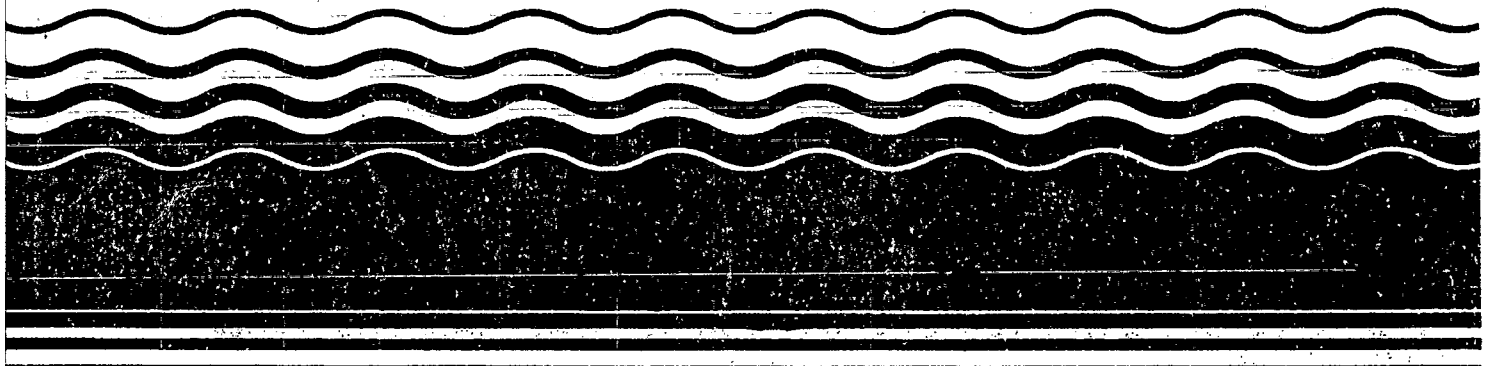
Superfund



Progress Toward Implementing Superfund

Fiscal Year 1997

Report to Congress



APR 30 2001

Progress Toward Implementing **SUPERFUND**

Fiscal Year 1997

REPORT TO CONGRESS

Required by
Section 301(h) of the
Comprehensive Environmental Response,
Compensation and Liability Act (CERCLA) of 1980,
as amended by the Superfund Amendments and
Reauthorization Act (SARA) of 1986

OFFICE OF EMERGENCY AND REMEDIAL RESPONSE
U.S. ENVIRONMENTAL PROTECTION AGENCY

Notice

This Report to Congress has been subjected to the U.S. Environmental Protection Agency's (EPA's) review process and approved for publication as an EPA document. For further information about this Report, contact the Office of Planning Analysis and Resource Management, Office of Emergency and Remedial Response at (703) 603-8770. Individual copies of the Report can be obtained from the U.S. Department of Commerce, National Technical Information Service (NTIS) by writing to NTIS, 5285 Port Royal Road, Springfield, VA 22161, or calling (703) 605-6000.

Foreword

The U.S. Environmental Protection Agency (EPA) continued its progress in protecting public health, welfare, and the environment through the Superfund program in fiscal year 1997 (FY97). As the Superfund program completed its seventeenth year, the Agency had begun work at over 98 percent of the 1,405 sites on the National Priorities List (NPL), and completed construction on 498 of them. EPA is pleased to submit this Report documenting the fiscal year's achievements. Through administrative improvements implemented during the year, the Agency continued its efforts to accelerate the pace of cleanup, enhance the fairness of the Superfund program, reduce transaction costs, and expand public involvement.

Section 301(h) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or Superfund), as amended by the Superfund Amendments and Reauthorization Act of 1986, requires the Agency to report annually on response activities and accomplishments and to compare remedial and enforcement activities with those undertaken in previous fiscal years. During the fiscal year, the Agency or potentially responsible parties (PRPs) started approximately 41 remedial investigation/feasibility studies, 72 remedial designs (RDs), and 102 remedial actions (RAs). PRPs began 69 percent of the RDs and 69 percent of the RAs. Continuing its successful efforts to compel PRPs to undertake cleanup, EPA entered into enforcement agreements worth almost \$500 million in settlements and response work. The Agency and PRPs have also now undertaken more than 4,490 removal actions, including 252 during FY97. Federal facility accomplishments have shown dramatic increases. EPA also continued to encourage public involvement in the Superfund process, to enhance partnerships with states and Indian tribes, and to encourage the use and development of treatment technologies.


In addition to providing an overall perspective on progress in the past fiscal year, this Report contains the information Congress specifically requested in Section 301(h) of CERCLA, including a report on the status of remedial actions and enforcement activity in progress at the end of the fiscal year and an evaluation of newly developed feasible and achievable treatment technologies. The Report also includes a description of current minority firm participation in Superfund contracts and EPA's efforts to encourage increased participation, as required by Section 105(f). The Report fulfills the requirement of Section 301(h)(1)(E) by providing an update on progress being made at sites subject to five-year reviews under Section 121(c). This Report also satisfies certain reporting requirements of CERCLA Section 120(e)(5), the *EPA Annual Report to Congress: Progress*

Foreword (continued)

Toward Implementing CERCLA at EPA Facilities as Required by CERCLA Section 120(e)(5). The EPA Inspector General's report on the reasonableness and accuracy of the information in this Report, as required by CERCLA Section 301(h)(2), is included as Appendix D.



Carol M. Browner
Administrator



Timothy Fields, Jr.
Acting Assistant Administrator for
Solid Waste and Emergency Response

Acknowledgments

The U.S. Environmental Protection Agency appreciates the contributions made by staff members throughout the Agency's management and program offices, as well as other federal agencies and departments. Within the Office of Solid Waste and Emergency Response, which manages the Superfund program, contributors included: Sharon Hallinan (project manager), Karl Alvarez, Erin Conley, Roger Hoogerheide, David Reynolds, Robin Richardson, Stuart Walker and Ed Ziomkoski from the Office of Planning Analysis and Resource Management; Jackie Tenusak from OSWER; Elaine Davies and John Smith from the OERR Immediate Office; Carol Bass and Art Johnson from the Region 1/9 Center; Carolyn Kenmore from the Region 4/10 Center; Lois Gartner and Dottie Pipkin from the Community Involvement and Outreach Center; Kirby Biggs and Randy Hippen of the State Tribal and Site Identification Center; and Lisa Tyhsen and Renee Wynn from the Federal Facilities Restoration and Reuse Office.

Additional key contributions from other Environmental Protection Agency offices were provided by: Lance Elson from the Office of Enforcement and Compliance Assurance's (OECA's) Federal Facilities Enforcement Office; Scott Blair from OECA's Office of Site Remediation; Linda Fiedler and John Kingscott from the Technology Innovation Office; and Becky Neer, from the Office of Small and Disadvantaged Business Utilization.

This page intentionally left blank

Contents

Notice	ii
Foreword	iii
Acknowledgments	v
Acronyms	xi
Executive Summary	xiii
 Chapter 1: Site Evaluation Progress	 1
1.1 Site Evaluation Process	1
1.2 Fiscal Year 1997 Progress	2
1.2.1 CERCLIS Site Additions: Discoveries and Removals	2
1.2.2 Pre-CERCLIS Screening	2
1.2.3 Preliminary Assessments	2
1.2.4 Site Inspections, Expanded Site Inspections, HRS Packages	2
1.2.5 Site Inspection Prioritizations	3
1.2.6 Integrated Site Assessments	3
1.3 Archiving Sites	3
1.3.1 Relationship Between NFRAP and Archiving	4
1.4 National Priorities List	4
1.4.1 National Priorities List Update	4
1.4.2 Relationship Between CERCLIS and NPL Update	5
1.4.3 Partial Deletions	6
1.5 Site Evaluation Support Activities	6
1.5.1 Brownfields Initiative	6
1.5.2 Lead Program Progress	8
1.5.3 Radiation Program Progress	8
1.5.4 Site Evaluation Regulation and Guidance	9
 Chapter 2: Emergency Response Progress	 11
2.1 Removal Action Process	11
2.2 Fiscal Year 1997 Progress	13
2.2.1 Status Report on Removal Progress	13
 Chapter 3: Remedial Progress	 15
3.1 Remedial Process	15
3.2 Fiscal Year 1997 Remedial Progress	16
3.2.1 Construction Completions	16
3.2.2 New Remedial Activities	16
3.2.3 In Progress Remedial Activities	17
3.3 Remedial Selection	18
3.4 Facilities Subject to Review Under CERCLA Section 121(c)	19
3.5 Superfund Innovative Technology Evaluation Program	22

Contents (continued)

Chapter 4: Enforcement Progress	23
4.1 The Enforcement Process	23
4.2 Fiscal Year 1997 Superfund Enforcement Progress	24
4.2.1 Settlements for Response Activities	25
4.2.2 PRP Participation in Cleanup Activities	25
4.2.3 Cost Recovery Achievements	25
4.3 Enforcement Initiatives	26
4.3.1 Orphan Share Compensation	27
4.3.2 Equitable Issuance of Unilateral Administrative Orders	27
4.3.3 Revised De Micromis Guidance	27
4.3.4 Allocation Pilots	28
4.3.5 Site-Specific Accounts	28
4.3.6 Improving PRP Oversight Administration	28
4.3.7 Issuance of Comfort/Status Letters	29
4.3.8 Ability to Pay Determinations	29
4.3.9 Penalty and Punitive Damage Claims for Noncompliance with Administrative Orders	29
4.3.10 Lenders and Fiduciary Liability Amendments	30
4.3.11 Successful Enforcement Accomplishments	30
Chapter 5: Federal Facility Cleanups	37
5.1 The Federal Facilities Program	37
5.1.1 Federal Facility Responsibilities Under CERCLA	37
5.1.2 EPA's Oversight Role	37
5.1.3 The Roles of States and Indian Tribes	38
5.2 Fiscal Year 1997 Progress	38
5.2.1 Status of Facilities on the Federal Agency Hazardous Waste Compliance Docket	38
5.2.2 Status of Federal Facilities on the NPL	39
5.2.3 Interagency Agreements Under CERCLA Section 120	39
5.3 CERCLA Implementation at EPA Facilities	39
5.3.1 Requirements of CERCLA Section 120(e)(5)	39
5.3.2 Progress in Cleaning Up EPA Facilities Subject to Section 120 of CERCLA	40
Chapter 6: Resource Estimates	45
6.1 Source and Application of Resources	46
6.1.1 Estimating the Scope of Cleanup	47
6.1.2 PRP Contributions to the Cleanup Effort	47
6.2 Resource Model Assumptions	47
6.2.1 Active NPL Sites	48
6.2.2 Sites Yet to Begin the Remedial Process	48

Contents (continued)

6.2.3	Non-Site Costs	48
6.3	Estimated Resources to Complete Cleanup	49
6.4	Estimated Resources for Other Executive Branch Departments and Agencies	49

Chapter 7: Superfund Program Support Activities 51

7.1	Overview of Program Support Activities	51
7.1.1	Community Involvement	51
7.1.2	Public Information	54
7.1.3	EPA's Partnership with States and Indian Tribes	55
7.2	Minority Firm Contracting	57
7.2.1	EPA Efforts to Identify Qualified Minority Firms	58
7.2.2	Efforts to Encourage Other Federal Agencies and Departments to Use Minority Contractors	59

Appendices

A	— Status of Remedial Investigations, Feasibility Studies, and Remedial Actions at Sites on the National Priorities List in Progress on September 30, 1997	A-1
B	— Remedial Designs in Progress on September 30, 1997	B-1
C	— List of Records of Decision	C-1
D	— Report of the Inspector General	D-1
E	— Summary of the Superfund Program [FY95-FY97]	E-1

Tables and Exhibits

Exhibit ES-1	Summary of Fiscal Year 1997 Superfund Activities	xiv
Exhibit ES-2	Summary of Program Activity by Fiscal Year	xv
Exhibit ES-3	Statutory Requirements for the Report	xviii
Exhibit ES-4	Fiscal Year 1997 Superfund Initiatives	xx
Exhibit 1.4-1	Final NPL Sites for Fiscal Year 1987 Through Fiscal Year 1997	5
Exhibit 2.2-1	Cumulative Removal Action Starts	12
Exhibit 2.2-2	Cumulative Removal Action Completions	13
Exhibit 3.2-1	Work Has Occurred at Over 98 Percent of the National Priorities List Sites	16
Exhibit 3.2-2	Remedial Accomplishments Under the Superfund Program for Fiscal Year 1980 Through Fiscal Year 1997	17
Exhibit 3.2-3	Projects in Progress at National Priorities List Sites by Lead for Fiscal Year 1996 and Fiscal Year 1997	18
Exhibit 3.4-1	Sites at Which Five-Year Reviews Were Conducted During Fiscal Year 1997	20
Exhibit 3.5-1	FY97 SITE Program Accomplishments	22
Exhibit 4.2-1	Cumulative Value of Response Settlements Reached With Potentially Responsible Parties	24

Contents (continued)

Exhibit 4.2-2	Percentage of Remedial Designs and Remedial Actions Started by PRPs	25
Exhibit 4.2-3	Cumulative Value of Cost Recovery Dollars Achieved and Collected	26
Exhibit 4.3-1	Highlights of Successful Enforcement Accomplishments	31
Exhibit 5.3-1	Status of EPA Facilities on the Federal Agency Hazardous Waste Compliance Docket	41
Exhibit 6.1-1	EPA Superfund Obligations	46
Exhibit 6.3-1	Estimate of Total Trust Liability to Complete Cleanup at Sites on the National Priorities List	49
Exhibit 6.4-1	List of Departments and Agencies Receiving Trust Fund Monies	50
Exhibit 7.1-1	Number of Technical Assistance Grants Awarded from Fiscal Year 1988 Through Fiscal Year 1997	53
Exhibit 7.2-1	Minority Contract Utilization During Fiscal Year 1997	58
Exhibit 7.2-2	Services Provided by Minority Contractors	58

Acronyms

AOC	Administrative Order on Consent
ARAR	Applicable or Relevant and Appropriate Requirement
ASTM	American Society for Testing Materials
ATP	Ability to Pay
CA	Cooperative Agreement
CAG	Community Advisory Group
CD	Consent Decree
CERCLA	Comprehensive Environmental Response Cleanup and Liability Act
CERCLIS	CERCLA Information System
CFR	Code of Federal Regulations
CPCA	Core Program Cooperative Agreement
CSI	Common Sense Initiative
DNAP	Dense Non-Aqueous Phase Liquid
DoD	Department of Defense
DOE	Department of Energy
DOI	Department of Interior
DOJ	Department of Justice
EPA	Environmental Protection Agency
ERT	Environmental Response Team
ESI	Expanded Site Investigation
FFEO	Federal Facilities Enforcement Office
FFRRO	Federal Facilities Restoration and Reuse Office
FS	Feasibility Study
FUDS	Formerly Used Defense Sites
GPRA	Government Performance and Results Act
GSA	General Services Administration
HMTRI	Hazardous Materials Training and Research Institute
HRS	Hazard Ranking System
HSRC	Hazardous Substance Research Center
HUD	Housing and Urban Development
IAG	Interagency Agreement
LSW	Lead Sites Workgroup
MARLAP	Multi-Agency Radiation Laboratory Protocols
MDA	Memorandum of Agreement
MOU	Memorandum of Understanding
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NEJAC	National Environmental Justice Advisory Council
NEPPS	National Environmental Performance Partnership System
NFRAP	No Further Remedial Action Planned
NIEHS	National Institute of Environmental Health Services
NPDES	National Pollution Discharge Elimination System
NPL	National Priorities List
NRC	Nuclear Regulatory Commission
NRRB	National Remedy Review Board

Acronyms (continued)

NTIS	National Technology Information Service
OECA	Office of Enforcement and Compliance Assurance
OLM	Outyear Liability Model
O&M	Operation and Maintenance
OMB	Office of Management and Budget
ORIA	Office of Radiation and Indoor Air
OSC	On-Scene Coordinator
OSDBU	Office of Small and Disadvantaged Business Utilization
OSRE	Office of Site Remediation Enforcement
OU	Operable Unit
PA	Preliminary Assessment
PPA	Prospective Purchaser Agreement
PPG	Performance Partnership Grant
PRP	Potentially Responsible Party
RA	Remedial Action
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
RI/FS	Remedial Investigation/Feasibility Study
ROD	Record of Decision
RPM	Remedial Project Manager
SACA	Support Agency Cooperative Agreement
SACM	Superfund Accelerated Cleanup Model
SARA	Superfund Amendments and Reauthorization Act of 1986
SHEMP	Safety, Health, and Environmental Management Program
SI	Site Inspection
SIP	Site Inspection Prioritization
SITE	Superfund Innovative Technology Evaluation
SPIM	Superfund Program Implementation Manual
SSC	Superfund State Contract
SSL	Soil Screening Level
TAG	Technical Assistance Grant
TOSC	Technical Outreach Services for Communities
TRW	Technical Review Workgroup
UAO	Unilateral Administrative Order
USACE	United States Army Corps of Engineers
USC	United States Code
UST	Underground Storage Tank
VCP	Voluntary Cleanup Program
VOC	Volatile Organic Compound

Executive Summary

As the Superfund program entered its 17th year in December 1997, the U.S. Environmental Protection Agency (EPA or "the Agency") continued to accomplish the requirements of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA) for protecting public health, welfare, and the environment. CERCLA requires that EPA update Congress each year on progress in the Superfund program. This Report fulfills the requirement.

EPA is committed to accelerating the pace of hazardous waste site cleanup. As part of this commitment, the Agency completed construction activities to place 88 more National Priorities List (NPL) sites in the construction completion category during fiscal year 1997 (FY97). By the end of the fiscal year, work had occurred at more than 98 percent of the 1,405 sites proposed to, listed on, or deleted from the NPL, including a total of 498 sites (35 percent) that have achieved construction completion.

The Agency also continued its successful efforts to encourage potentially responsible parties (PRPs) to undertake and finance cleanup efforts at Superfund sites. PRPs were leading more than 68 percent of remedial designs (RDs) and 70 percent of remedial actions (RAs) started during the fiscal year. Since the inception of the Superfund program, EPA has reached agreements worth nearly \$12.35 billion for PRP response work at Superfund sites, including \$451 million achieved this year.

This report summarizes Superfund FY97 progress, highlighting accomplishments and initiatives to improve the program. Exhibit ES-1 presents a summary of FY97 accomplishments. Exhibit ES-2 provides a comparison of FY97

accomplishments with those of previous years and also provides cumulative program accomplishments. FY97 accomplishments reflect the Agency's commitment to, and focus of resources on, activities required to complete site cleanups.

Site Evaluation Progress

EPA continued its progress in identifying and assessing newly discovered sites. At the end of FY97, there were more than 40,100 sites identified in the CERCLA Information System (CERCLIS), the Superfund inventory of potentially hazardous waste sites. The assessment activities included approximately 38,000 preliminary assessments and 18,275 site inspections. Based on these evaluations, EPA has determined that 1,405 of the sites should be proposed to, listed on, or deleted from the NPL. During FY97, a total of 1,249 sites remained on the NPL. These sites include 53 proposed to, 18 listed on, and 32 deleted from the NPL during FY97. To date, a total of 156 sites have been deleted from the NPL.

The site assessment process also includes site reevaluation. With over 41,200 sites appearing on CERCLIS by the end of FY97, only about 3.5 percent of these sites have made it to the final NPL. Motivated by the need to remove the perceived stigma imposed on communities with nearby CERCLIS-listed sites, the Agency has initiated the removal of sites that are of no further concern to the Superfund program. During FY97, the Agency archived 30,450 sites and this effort is a major program goal and future plans will further support the archiving effort.

Exhibit ES-1
Summary of Fiscal Year 1997 Superfund Activities

Remedial Activities		
Percentage of National Priorities List Sites Where Work Has Begun		98%
Sites Classified as Construction Completions as of September 30, 1997		498
Sites with Remedial Activities in Progress on September 30, 1997		815
Records of Decision Signed ¹		168
Remedial Investigation/Feasibility Study Starts ²		41
<i>Fund-Financed</i>		56%
<i>Potentially Responsible Party-Financed</i>		44%
Remedial Investigation/Feasibility Studies in Progress on September 30, 1997		808
Remedial Design Starts ²		72
<i>Fund-Financed</i>		31%
<i>Potentially Responsible Party-Financed</i>		69%
Remedial Designs in Progress on September 30, 1997		299
Remedial Action Starts ²		102
<i>Fund-Financed</i>		31%
<i>Potentially Responsible Party-Financed</i>		69%
Remedial Actions in Progress on September 30, 1997		686
Removal Activities		
Removal Action Starts ²		252
<i>Fund-Financed</i>		83%
<i>Potentially Responsible Party-Financed</i>		17%
Removal Action Completions ²		315
<i>Fund-Financed</i>		73%
<i>Potentially-Responsible Party-Financed</i>		27%
Site Assessment Activities		
CERCLIS Sites Added ²		500
Preliminary Assessments Conducted ²		420
Site Inspections Conducted ²		330
National Priorities List Sites to Date		1,405
<i>Sites Proposed for Listing During Fiscal Year 1997</i>		53
<i>Final Sites Listed During Fiscal Year 1997</i>		18
<i>Sites Proposed for Deletion During Fiscal Year 1997</i>		23
<i>Sites Deleted During Fiscal Year 1997</i>		32
Enforcement Activities		
Settlements for All Potentially Responsible Party Response Activities	164	(\$451 million) ³
Remedial Design/Remedial Action Settlements ⁴	59	(\$335 million)
Unilateral Administrative Orders Issued (All Actions)	67	N/A
Cost Recovery Dollars Collected	N/A	(\$316 million)
Accomplishments at Federal Facility Sites		
Records of Decision Signed		91
Remedial Investigation/Feasibility Study Starts ²		62
Remedial Design Starts ²		62
Remedial Action Starts ²		67
¹ Records of decision signed for Fund-financed and potentially responsible party-financed sites. ² Numerical values for accomplishments based on information from CERCLIS have been rounded. ³ Estimated value of work potentially responsible parties have agreed to undertake. ⁴ Remedial design/remedial action settlements include remedial design/remedial action consent decrees and unilateral administrative orders with potentially responsible parties have stated their intention to comply.		

Sources: CERCLIS (as of September 30, 1997); Office of Enforcement and Compliance Assurance; Office of Emergency and Remedial Response; *Federal Register* notices from December 23, 1996; April 1, 1997 and September 25, 1997.

Exhibit ES-2
Summary of Program Activity by Fiscal Year

	FY80-86 Total	FY87	FY88	FY89	FY90	FY91	FY92	FY93	FY94	FY95	FY96	FY97	Total
Removal Completions ^{1,2}	810	230	320	260	290	270	340	290	240	298	276	315	3,939
CERCLIS Sites ¹	25,200	27,600	30,000	31,900	33,600	34,200	36,400	37,500	38,300	39,000	39,600	500	40,100
PA Completions ¹	20,200	4,000	2,900	2,200	1,600	1,300	1,900	1,100	900	813	781	420	38,114
SI Completions ¹	6,400	1,300	1,200	1,700	1,900	1,900	1,300	700	600	584	359	330	18,273
National Priorities List Sites ³	901	964	1,194	1,254	1,236	1,245	1,275	1,320	1,355	1,375	1,387	1,405	1,405
Remedial Investigation/ Feasibility Study Starts ^{1,2}	660	210	170	170	170	70	90	60	70	30	36	41	1,777
Records of Decision Signed ²	199	77	152	136	149	175	126	134	159	187	156	168	1,818
Remedial Design Starts ^{1,2}	120	110	120	180	130	160	170	130	110	84	74	72	1,460
Remedial Action Starts ^{1,2}	70	70	70	110	80	100	110	120	120	110	116	102	1,178
Construction Completions ⁴	—	—	—	—	—	61	88	68	61	68	64	88	498
National Priorities List Deletions ⁵	13	0	5	10	1	9	2	12	13	25	34	32	156

¹ Numerical values for accomplishments based on information from CERCLIS in FY80 through FY86 have been rounded.
² Includes Fund-financed and potentially responsible party-financed activities; excludes federal facility activities and state-lead activities where no Fund monies were spent.
³ The figures reported in this now represent the cumulative total of proposed, final, and deleted National Priorities List sites as of the end of each fiscal year.
⁴ Adopted as measure of program progress by 1991 30-Day Study Task Force. FY91 value represents FY80 through FY91.
⁵ Total deletions include eight sites referred to other authorities in FY97.

Sources: CERCLIS (as of September 30, 1997); Office of Emergency and Remedial Response; *Federal Register* notices through September 30, 1997.

The Agency announced the Brownfields Action Agenda in January 1995 and it has grown to encompass many aspects of site redevelopment. During FY97, Brownfields pilots focused on clarifying liability and cleanup issues, partnership and outreach, and job development. By the end of FY97, 121 Brownfields pilots were awarded, ranging in values of up to \$200,000 each. These pilots encourage federal, state, and local governments and tribes to implement new strategies aimed at increasing the level and efficiency of site assessment, cleanup and redevelopment.

Emergency Response Progress

To protect human health and the environment from immediate or near-term threats, the Agency and PRPs started nearly 252 removal actions and completed 315 during FY97. More than 4,490 removal actions have been started and nearly 3,939 have been completed since the inception of the Superfund program.

Through the Superfund Accelerated Cleanup Model (SACM) the Agency continued its efforts to expand the use of removal authority for early actions

to reduce risks more rapidly and expedite cleanup at NPL sites. Early actions may include emergency, time-critical, or non-time-critical removal responses, or quick remedial responses. Accelerated cleanups are targeted with other initiatives as well, including those on presumptive remedies, dense non-aqueous phase liquid (DNAPL) contamination, and soil screening levels.

Remedial Progress

Remedial progress during the fiscal year reflects the Agency's continuing efforts to accelerate the pace of cleanup activities and complete cleanups at Superfund sites. As mentioned previously, by the end of FY97, work had occurred at 98 percent of the 1,405 sites proposed to, listed on, or deleted from the NPL, and construction activities had been completed to place 498 NPL sites (35 percent) in the construction completion category. During the year, the Agency and PRPs started nearly 41 remedial investigation/feasibility studies (RI/FSs), 72 RDs, and 102 RAs. EPA also signed 168 records of decision (RODs) for Fund-financed, PRP-financed sites, and federal facility sites.

The efforts of the National Remedy Review Board (NRRB) saved an estimated \$6 million in future cost reductions during FY97 alone. The NRRB conducted eight of its 20 decisions completed to date during FY97, with the intent of improving national consistency and cost-effectiveness. In addition, the Board performed an in-depth analysis of its procedures, that resulted in the modification of several of its key guidance documents. The Board acts to ensure that decisions are in compliance with regulations and guidance and continues to target high cost sites and reassure technically sound decision making.

As recommended by the 1993 Superfund Administrative Improvements Task Force, EPA continued several efforts to streamline remedial activities and increase the consistency and efficiency in Superfund cleanups. The Agency demonstrated presumptive remedies developed for municipal landfills and sites contaminated with volatile organic compounds, while working to develop presumptive remedies for wood-treatment, polychlorinated biphenyl, manufactured-gas-plant, grain storage, and

polluted ground-water sites; released draft soil screening levels (SSLs) for 100 chemicals commonly found at Superfund sites; and implemented guidance for addressing DNAPL contamination of ground water.

In continuing efforts to encourage the development and use of innovative treatment technologies to cleanup Superfund sites, the Agency took measures to demonstrate the technologies and provide information about them to potential users.

Enforcement Progress

Enforcement progress for FY97 reflects the Agency's continued commitment to maximize PRP involvement in financing and conducting cleanup, and to recover Superfund monies expended for response actions. During FY97, EPA reached agreements with PRPs worth more than \$451 million in PRP response work. Through its FY97 cost recovery efforts, EPA achieved \$158 million in settlements and collected more than \$316 million for reimbursement of Superfund expenditures. Examples of significant enforcement actions are provided in Chapter 4 of this Report.

While continuing to promote "enforcement first" to secure PRP involvement in financing and conducting cleanups, the Agency also worked to ensure equity in the enforcement process and to seek ways to reduce transaction costs. To support these goals during FY97, the Agency focused on increasing the use of allocation tools such as providing orphan share compensation, encouraging early settlements with *de minimis* and "de micromis" parties, promoting alternative dispute resolution and the equitable issuance of unilateral administrative orders (UAOs), adopting private party allocations, and creating interest bearing site-specific special accounts, fostering greater fairness for owners and prospective purchasers of Superfund sites through Prospective Purchaser Agreements (PPAs). Guidance on improving the administration of PRP oversight was implemented with the formation of a work group, that identified 100 potential sites with capable and cooperative PRPs, that may be eligible for reform. This reform decreases the government's administrative burden at these sites.

Federal Facility Cleanups

Federal departments and agencies are largely responsible for implementing CERCLA at federal facility sites. To ensure federal facility compliance with CERCLA requirements, EPA provides advice and assistance, oversees activities, and takes enforcement action where appropriate. At sites on the NPL, EPA must concur in remedy selection.

Activity during the fiscal year at federal facility sites listed on the NPL, included starting approximately 62 RI/FSs, 62 RDs, 67 removals, and 90 RAs; and signing 91 RODs. Ongoing activities at the end of FY97 included 494 RI/FSs, 74 RDs, and 169 RAs. At the end of FY97, of the 2,070 sites on the Federal Agency Hazardous Waste Compliance Docket, 25 are EPA-owned or operated facilities.

Superfund Program Support Activities

EPA took steps in FY97 to enhance community involvement, environmental justice, and EPA's partnership with states and Indian tribes. In its community involvement efforts, EPA continued measures to tailor activities to meet the specific needs of individual communities and to identify ways to enhance community involvement efforts. The Agency also continued to provide technical outreach to communities, hold national conferences on community involvement, encourage community advisory groups (CAGs) and facilitate community access to technical assistance grants (TAGs). To aid communities in obtaining technical assistance, EPA awarded 9 TAGs during the fiscal year, bringing the total number of TAGs awarded since FY88 to 198, for a total worth of more than \$13 million.

To support state and tribal involvement in the Superfund response activities, EPA has awarded \$10 million towards state voluntary cleanup programs (VCP). States which enter VCPs may sign Memoranda of Agreement (MOA) with their respective Regions which officially document the effort between EPA and states to support voluntary cleanup and the sustainable redevelopment of Brownfields sites.

As required by CERCLA Section 105(f), the Agency also engaged in efforts to encourage minority firm participation in Superfund contracting. These efforts are discussed in Section 7.2.

Resource Estimate for Superfund Implementation

Under section 301(h)(1)(c) of CERCLA, EPA is required to estimate the resources needed to implement Superfund, and CERCLA requires that EPA provide the estimates in this Report. Since the enactment of CERCLA in 1980, Congress has provided Superfund with \$17.6 billion in budget authority (FY81 through FY97). This includes \$1.7 billion for the pre-SARA period (FY81 through FY86) and \$15.9 billion for the post-SARA period, FY87 through FY97.

Estimates of the long-term resources required to implement Superfund are based on the Outyear Liability Model (OLM). The OLM estimate of the cost of completing cleanup of current NPL sites is more than \$13.6 billion for FY98 and beyond, bringing the total estimated cost for the program to \$31.3 billion.

Organization of this Report

Information prepared for this Report is assembled in response to congressional requirements specified in CERCLA 301(h)(1). Exhibit ES-3 is a guide to the information required under CERCLA and its location in the Report.

Fiscal Year 1997 Initiatives

Major initiatives in FY97 address enforcement, economic redevelopment and Brownfields initiatives, measuring program progress, federal facilities, community outreach, environmental justice, increased state and tribal involvement, and consistent program implementation. Exhibit ES-4 provides highlights of these and other initiatives undertaken by the Agency in FY97.

**Exhibit ES-3
Statutory Requirements for the Report**

CERCLA Section	CERCLA Requirement	Report Section	Report Content
301(h)(1)	Annual Report to Congress on the progress achieved in implementing Superfund during the preceding fiscal year	Executive Summary	Initiatives to improve the Superfund program
		Chapter 1	Site evaluation progress
		Chapter 2	Emergency response progress
		Chapter 3	Remedial progress
		Chapter 4	Enforcement progress
		Chapter 5	Federal facility cleanups
		Chapter 6	Resource estimates
301(h)(1)(A)	Detailed description of each feasibility study (FS) at a facility	Chapter 7	Superfund program support activities
		Section 3.3	Overview discussion of RODs signed during the fiscal year, including the number of treatment and containment remedies selected
301(h)(1)(B)	Status and estimated date of completion of each FS	Appendix C	List of RODs signed in the fiscal year
		Appendix A	Status and estimated completion date of each ongoing FS in progress at the end of the fiscal year
301(h)(1)(C)	Notice of each FS which will not meet a previously published schedule for completion and the new estimated date for completion	Appendix A	Scheduled completion date published for the last fiscal year, the scheduled completion date recorded in CERCLIS as of end of the current fiscal year, and identification of schedule changes
301(h)(1)(D)	An evaluation of newly developed feasible and achievable permanent treatment technologies	Section 3.5	Evaluation of newly developed technologies through the Superfund Innovative Technology Evaluation Program
301(h)(1)(E) 121(c)	Progress made in reducing the number of facilities subject to review under CERCLA Section 121(c), which requires the report to Congress to contain a list of facilities for which a five-year review is required, the results of all such reviews, and any actions taken as a result of such reviews	Section 3.4	Annual update on progress being made on sites subject to review under CERCLA Section 121(c)

CERCLA Section	CERCLA Requirement	Report Section	Report Content
301(h)(1)(F)	Report on the status of all remedial and enforcement actions undertaken during the fiscal year, including a comparison to remedial and enforcement actions undertaken in prior fiscal years	Section 3.2.2	Information on fiscal year remedial activity starts (including PRP involvement) with a comparison of fiscal year activities to those of previous years
		Section 4.2	Information on fiscal year enforcement activities with a comparison of fiscal year activities to those of previous years
		Appendix A	Information on the status of each RI/FS and RA in progress at the end of the fiscal year
		Appendix B	Information on the status of RDs in progress at the end of the fiscal year
301(h)(1)(G)	Estimates of the amount of resources, including the number of work years or personnel, which would be necessary for each department, agency, or instrumentality which is carrying out any activities to complete the implementation of all duties vested in the department, agency, or instrumentality	Sections 6.1 and 6.3	EPA resource estimates for completion of CERCLA implementation
		Section 6.4	Other federal agency's and department's estimates for completion of CERCLA implementation
301(h)(2)	Review by the Inspector General and submission of any report related to EPA's activities for reasonableness and accuracy	Appendix D	Review of the Inspector General on this Report
105(f)	Brief description of the contracts which have been awarded to minority firms under Superfund and the efforts made to encourage the participation of such firms in the Superfund program	Section 7.2	Information on minority contracting awards by EPA, states, Indian tribes, and other federal agencies using Superfund monies. EPA efforts to encourage increased minority contractor participation in the Superfund program
120(e)(5)	Annual report to the Congress concerning EPA progress in implementing remedial activities at its facilities	Section 5.3	Report on EPA progress in CERCLA implementation at EPA-owned facilities, including a state-by-state report

Exhibit ES-4
Fiscal Year 1997 Superfund Initiatives

Superfund Initiative	Status
Economic Redevelopment	
Reinventing Site Assessment	The purpose of reinventing the site assessment process is to lower costs, aid economic development and environmental recovery, encourage more efficient site cleanups, and to allow States to have more responsibility. The site assessment process has been redesigned to focus more on redevelopment of Brownfields, to heighten state and tribal programs' expertise, and to address sites in CERCLIS and on the NPL. Some priorities of the site assessment process include listing appropriate sites on the NPL and evaluating non-CERCLIS sites in conjunction with the Brownfields initiative.
Brownfields	Fiscal year 1997 saw the announcement of 121 Brownfields pilots. Funding will be allocated to 25 new pilot recipients, 29 old recipients (prior to 1996), and the State Cleanup Program. Additionally, funding will be provided to implement outreach programs for existing pilot recipients in order to foster stronger partnerships between tribes, states, and federal, and local governments.
Archiving CERCLIS Sites	EPA continued archiving sites which are no longer of concern to the Superfund program. Of over 41,000 sites placed into CERCLIS, only about 5 percent of these have been determined as NPL sites.
Prospective Purchaser Agreements	Prospective Purchaser Agreements (PPAs) allow people to purchase contaminated land for redevelopment while releasing them from potential future liability. Four guidance documents on PPAs were issued to aid the approval of future agreements. Sixty-eight PPAs existed by the end of FY97.
Better Waste Management, Restoration of Contaminated Waste Sites, and Emergency Response	By continuing to regulate waste management, the Agency reduces the risk of human health exposures and environmental exposures. As a result, there will be fewer "new" Superfund sites. EPA can greatly reduce the effects of uncontrolled exposures on local communities and their sensitive environments by restoring contaminated sites. The Agency can minimize the risk caused by emergencies with rapid response and levying PRP resources to fund responses to the maximum extent. These measures are being taken to make each program more effective and efficient.
Measuring Program Progress	
Environmental Indicators	Environmental indicators serve as a visible, easily expressed means of conveying the success of the Superfund program. Through the use of indicators, the benefits of Superfund become apparent, especially in terms of reduced threats to human health. EPA continued to develop two environmental indicators to address human health risk reduction (Indicator D), and ecological risk reduction (Indicator E) for implementation by the end of FY97.
Construction Completions	The Agency has set a goal of 650 construction completions by the end of the year 2000. Sites in the remedial design/remedial action stage will be managed effectively to see that they are quickly brought through to construction completeness. The Agency stresses the importance for states and regions to work together to determine opportunities to expedite construction completions and response actions.

Superfund Initiative	Status
Federal Facilities	
Federal Facilities	A primary mission of Superfund is to make sure that federally-owned or operated hazardous waste facilities are cleaned up as quickly as possible. Regional attention is given to advance these sites to construction completeness, whether it is by removal or remedial authority.
Base Closures	Currently, 113 military installations are scheduled for closure or realignment. Twenty-one of these sites are on the NPL and others need some amount of decontamination. The Agency will continue to assist the DoD with the assessment, cleanup, and listing of appropriate sites on the NPL. They will also ensure that the remedies at the 21 NPL sites meet Superfund criteria.
Environmental Justice	
Jobs Training Initiative	The Jobs Training Initiative strives to train and employ those residents living near NPL sites through worker training the classroom and in the field. A minority worker training program was begun and pilots were started at five Superfund sites in hopes of increasing job opportunities in communities with hazardous waste sites.
Community Involvement and Outreach	
Superfund Ombudsman for each Region	Ombudsmen were established in each Region in 1996 to resolve concerns and provide guidance to stakeholders on Superfund and other environmental issues. During 1997, increased requests for assistance from stakeholders in several Regions made the Superfund program more responsive to community concerns.
Consistent Program Implementation	
Worst Sites First	EPA's highest priority and guiding principle is to remove imminent risk from humans and the environment. When the Agency has decided that a site does not pose an imminent risk, they will move on to other priorities. Until that point, any site which poses an imminent risk to public health and the environment is considered top priority.
Guidance for Remedy Selection	The Agency continued developing guidance aimed at improving removal cost and time savings on the subjects of soil screening, land-use, and presumptive remedies. Soil screening guidance serves to work in conjunction with SACM, and future plans call for the development of ecological soil screening levels. EPA has estimated a 36 to 56 percent time savings based on the use of the presumptive remedies guidance at municipal landfills alone.
Innovative Technologies	The innovative technologies which are being developed or implemented include the use of presumptive remedies for the cleanup of municipal landfills, a method for rapidly assessing the presence of dense non-aqueous phase liquid (DNAPL) contamination, national soil acceptance levels, and the continuation of Superfund Accelerated Cleanup Model (SACM). These innovative technologies will be assessed at federal facilities. In some instances, EPA is sharing the risks associated with implementing innovative technologies by reimbursing up to 50 percent of the costs of such technologies, if they should fail.

Superfund Initiative	Status
Effective Contract Management	The Agency will continue to implement the suggestions of the task force on Alternative Remedial Contracting Strategy contracts as well as apply the Long-Term Contracting Strategy. The Special Analytical Service contract has been totally decentralized and new Regional Superfund contracts are currently being managed. EPA pays particular attention to conflicts of interest involving EPA contractors who also may be working for another federal agency.
National Remedy Review Board	In 1997, the National Remedy Review Board achieved both its objectives of promoting cost effectiveness and creating national consistency between Regions in remedy selection. Eight cleanup decisions were reviewed, saving approximately \$6 million in 1997 alone, bringing the grand total of savings to over \$31 million. A detailed analysis of Board operating procedures has altered key strategies.
Technical Review Workgroup on Lead	Consistency in risk assessments involving lead (Pb) has been improved through the Technical Review Workgroup (TRW), which issues fact sheets and issue papers on key parameters of risk assessment. The TRW has examined the Integrated Exposure Uptake and Biokinetic (IEUBK) Lead model to better determine the risks to people living near lead-contaminated sites.
Enforcement	
Enforcement Fairness/Reduce Transaction Cost	The Agency promotes fair treatment of all PRPs and tries to reduce private sector transaction costs associated with site cleanups. Six initiatives were developed during the past year: Orphan Share Compensation, "De Micromis Settlements," Alternative Dispute Resolution, Equitable Issuance of UAOs, Adopting Private Party Allocations, and Interest Bearing Site Specific Special Accounts. These programs either reduce transaction costs paid by PRPs as part of the settlement process, or ensure that PRPs only pay a fair portion of response costs for the sites where they are involved.
Enforcement First/Cost Recovery	The Agency will continue to emphasize early initiation of PRP searches, negotiations to bind PRPs into leading cleanup activities, Alternative Dispute Resolutions, and monitoring compliance violations. In the past few years, PRPs have lead the majority of new cleanup actions, which has accelerated the pace of Superfund cleanups. Early involvement of PRPs also keeps transaction and cleanup costs at a minimum.
Improved PRP Oversight	To help reduce project completion cost and time, a work group emerged in FY97 to put a 1996 guidance into practice. This guidance aims to reduce EPA oversight at sites where have PRPs are deemed "cooperative and capable." Regional Offices are responsible for notifying the PRP's of EPA's intentions and will meet with the PRPs to discuss the future of their various oversight activities.
State and Tribal Involvement	
Voluntary Clean-up Program	EPA distributed \$10 million in support of voluntary cleanup programs (VCP) in FY97. Guidance is pending consensus on certain critical aspects.. In all, 11 Memoranda of Agreement have been signed, dictating voluntary cleanup strategies and Brownfields redevelopment. The VCPs are extremely popular, with 35 states choosing to adopt them.

Superfund Initiative	Status
Enhancement of State/Tribal Role	The EPA is giving states and tribes an increased role in the cleanup of hazardous waste sites. Current programs will be transferred to the States and Tribes in order to support this goal. Tribes will be considered independent entities from the states.
Performance Partnership Grants (PPG)	Tribes and states may apply for a PPG in order to consolidate funds from their categorical grants into one or more PPGs. NEPPS (National Environmental Performance Partnership System) agreements will be required for each PPG. These agreements are program commitments describing the goals and objectives, results and benefits expected, plan of action, and projections of program accomplishments. PPGs cannot specifically contain Superfund resources. However, the EPA is working towards increasing state flexibility with Superfund funding.
State/Tribal Programs: State Remedy Selection	Under this pilot program, states and tribes are allowed to chose certain remedies for some sites as long as the remedy is in compliance with the National Contingency Plan (NCP). This program allows states and tribes to completely oversee the remedy selection process with minimal EPA supervision. The state/tribal program will be evaluated in 1997 to identify opportunities to offer states and tribes an even greater role in the Superfund program.

Source: Superfund Program Implementation Manual Fiscal Year 1997 (SPIM), Superfund Reforms Annual Report FY1997.

This page intentionally left blank

Chapter 1

Site Evaluation Progress

By the end of FY97, approximately 40,100 potential hazardous waste sites had been identified and added to the Superfund inventory. Over 30,450 have been archived; the remainder await a final decision to determine if further federal involvement (NPL listing or archival) was necessary. To enhance site evaluation, EPA continued implementing the Superfund Accelerated Cleanup Model (SACM). Through SACM, EPA's Regions have been encouraged to reduce repetitive tasks and costs by combining activities where warranted by site conditions between the site assessment and long-term remediation program, and between the site assessment and removal program. EPA has also continued with ongoing efforts to address technical complexities and improve site evaluation guidance and to implement the Superfund administrative reforms such as the Brownfields Initiative.

1.1 Site Evaluation Process

The current site evaluation process begins when states, federally recognized Indian tribes, citizens, other federal agencies, or other sources notify the EPA Superfund program of a potential or confirmed hazardous waste site or incident. EPA confirms information and places a discovery date in the Agency's Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) database for those sites requiring further federal Superfund attention. In the case of federal facilities, sites are initially placed on the Federal Facility Hazardous Waste Docket and added to CERCLIS if site assessment work is required under CERCLA.

EPA manages activities, including necessary laboratory and technical support, by directing a

network of contractors, or by providing funding for these activities to states and tribes through site assessment cooperative agreements. At sites that pose an immediate threat to human health, welfare, or the environment, EPA conducts a removal action to address the threat. At other sites, a two-stage assessment is conducted; consisting of a preliminary assessment (PA) and a site inspection (SI). In some instances, EPA may need to continue with a more detailed investigation – an expanded site investigation (ESI) – that may involve additional sampling. Site screening and assessment decisions are made at Superfund sites upon completion of each site assessment action. These decisions may include:

- No further remedial action planned (NFRAP);
- Perform an early action to mitigate a threat;
- Designate the site a high or low priority for further evaluation;
- Defer the site to the state or another authority such as the Nuclear Regulatory Commission (NRC) or Resource Conservation and Recovery Act (RCRA) Subtitle C;
- Prepare the Hazard Ranking System (HRS) scoring package, or
- Aggregate the site into an existing National Priorities List (NPL) site.

Using the information from the PA, SI and ESI (if performed), EPA prepares an HRS package to evaluate the site's potential risk to human health and the environment. This system uses information from all the assessments conducted at the site to assign a

numeric score from 0 to 100. The HRS is the primary screening tool for determining whether a site is eligible for inclusion on the NPL, EPA's list of sites that are priorities for further investigation and if necessary, response action under CERCLA, 42 USC 9601, *et seq.*

1.2 Fiscal Year 1997 Progress

During FY97, EPA continued its progress in identifying and assessing potential hazardous waste sites while streamlining the process through administrative reform efforts.

1.2.1 CERCLIS Site Additions: Discoveries and Removals

EPA added more than 500 sites to CERCLIS during FY97, bringing the total number of sites under Superfund to approximately 40,100. Although the number of new sites brought to the Agency's attention has declined recently, EPA must address a backlog of sites still needing assessment to identify priority NPL candidates or to archive sites from CERCLIS. By the end of FY 97, over 30,450 sites had been archived (removed) from CERCLIS, leaving approximately 10,700 sites still in the CERCLIS inventory. EPA will continue to integrate remedial and removal assessment activities, where possible, to reduce costs and durations in an effort to utilize resources most efficiently and effectively.

1.2.2 Pre-CERCLIS Screening

In 1997, EPA initiated pre-CERCLIS screening guidance to minimize the number of sites unnecessarily entered into CERCLIS. The guidance requests that the Regions determine if federal action is necessary at the site before placing a site into CERCLIS. Several regions are developing pre-CERCLIS screening programs, based on HQ guidance. The Agency may revise the pre-CERCLIS screening policy or develop additional criteria based on the results of the regional programs.

1.2.3 Preliminary Assessments

When notified of a potential hazardous waste site, EPA or the appropriate state or tribe will

conduct a preliminary assessment to determine the threat posed by the site. A PA is the first phase of the site assessment that determines whether a site should be recommended for further action under Superfund. Federal, state, and local government files, geological and hydrological data, and data concerning site practices are reviewed to complete the PA report. An on- or off-site reconnaissance also may be conducted, although it is not required. EPA or the state will also review other existing site-specific information such as past state permitting activities, local population statistics, or information concerning the site's potential effect upon the environment. PA activities enable the Agency or state to determine whether further/no further study of the site or removal assessment/action is necessary. For federal sites, EPA reviews PA reports developed by relevant federal agencies and determines whether further/no further study is required under Superfund.

EPA, states, and tribes completed more than 420 PAs in FY97. Since the inception of Superfund, EPA states, and tribes have completed PAs at nearly 39,000 sites. The Agency has determined no further federal Superfund action is necessary at 46 percent of these sites – the remainder have proceeded to the SI stage for more extensive evaluation.

1.2.4 Site Inspections, Expanded Site Inspections, HRS Packages

If the PA indicates that a potential threat to human health or the environment, EPA or the states will perform an site inspection to determine options for cleanup and whether the site should be proposed for listing on the NPL. The objective of a SI is to gather information to support a site decision regarding the need for further federal Superfund action. The SI is not a study of the full extent of contamination at a site or a risk assessment, but is the first investigation to collect and analyze waste and environmental samples to support a site evaluation according to the HRS. An SI investigates PA hypotheses to target contamination and to determine the types of hazardous substances present. The scope of the site investigation is defined as the number of critical hypotheses and questions remaining after the PA and the number of pathways contributing to further action recommendations. In some instances such as installation of groundwater monitoring wells,

EPA may need to continue with a more expanded site investigation (ESI). The objective of the ESI is to collect additional data as necessary to prepare an HRS scoring package. The complexity of the site and the need for special procedures will determine the scope of the ESI.

For sites judged to be prospective candidates for the NPL, the collected data will be used to calculate a score using the Hazard Ranking System. The HRS serves as a screening device to evaluate and measure the relative threat a site poses to human health, welfare, or the environment and to assist in determining whether the site is eligible for placement on the NPL. The HRS evaluates four pathways through which contaminants from a site may threaten human health or the environment: groundwater, surface water, soil, and air.

The Agency completed over 330 SIs, 80 ESIs, and 46 HRS packages during FY 1997 and nearly 20,000 SIs, 700 ESIs, and 2,050 HRS package completions since the inception of the Superfund program. About 50 percent of those SIs resulted in no further action decisions under Superfund, the remainder have undergone additional assessment, or are awaiting further EPA action such as proposal to the NPL.

1.2.5 Site Inspection Prioritization

When the revised HRS was promulgated in March 1991 in response to a mandate in SARA, EPA could no longer use the original HRS for making NPL determinations. At that time, several thousand sites were eligible for NPL listing based on SIs conducted under the original HRS. EPA developed the SI prioritization (SIP) process to update preliminary HRS scores at those sites based on the revised HRS model.

SIPs were limited to 6,600 sites where an SI was conducted prior to August 1, 1992, but were also used to assist in identifying candidates for early actions under SACM. EPA completed approximately 200 SIPs in FY97. Most SIPs completed have resulted in NFRAP decisions.

1.2.6 Integrated Site Assessments

Prior to the implementation of SACM, hazardous waste sites could receive numerous similar, but sequential, assessments before any kind of cleanup began. Many if not most of these assessments started from scratch and did not take into consideration the information and data generated by the studies that preceded them. Resources were expended on the process of executing separate contracts, mobilizing sampling teams, designing sampling strategies, modifying health and safety plans, etc. for different but closely related assessment activities. The potential for repetitive work was largely a result of separate Superfund programs (e.g., removal and site assessment) addressing the same site.

The overall goal of SACM is to make Superfund cleanups more timely and efficient. One component of this model, the integrated site assessment, is designed to streamline the evaluation of selected sites by merging assessments of their conditions and risks. For example, under the integrated approach, any of the site assessment steps may be combined with the removal program's assessment; and the expanded site inspection may be combined with the site inspection, remedial investigation, or both. This allows for accelerated cleanups and increased efficiency in the Superfund process within the framework of CERCLA and the National Contingency Plan (NCP), while ensuring that cleanups continue to be protective.

1.3 Archiving Sites

In response to growing concerns about the unintended stigma associated with sites listed in CERCLIS, EPA introduced the CERCLIS archiving effort in early 1995 as part of the Agency's second round of administrative reforms on the Brownfields Economic Redevelopment Initiative. This Brownfields Initiative encourages cities, states, and private investors to clean up and redevelop contaminated or formally contaminated sites. Sites chosen for archive include sites where, following initial investigation, no contamination was found, where contamination was removed quickly without needing to be placed on the NPL, where the contamination was not serious enough to warrant further federal Superfund attention, or where responsibility lies with the state or

other authority such as Resource Conservation and Recovery Act (RCRA) for further assessment/cleanup work.

By the end of FY97, EPA archived approximately 30,450 of the 40,100 sites entered into CERCLIS. EPA provided updated guidance identifying types of sites eligible for archiving from CERCLIS in November 1996. In April 1997, EPA developed a quick reference fact sheet, "Archival of CERCLIS Sites," and posted it on EPA's Brownfields Internet homepage. An inventory of CERCLIS and archived sites by state is also available on the Internet.

1.3.1 Relationship Between NFRAP and Archiving

At any point in the evaluation process, EPA may determine that the Superfund evaluation of the site is complete and that no further steps to list the site on the NPL will be taken. Federal Superfund site assessment activities are suspended when the appropriate Regional official signs a letter, form, or memo approving the site assessment report and makes a determination that no further remedial action is planned or required. This decision does not necessarily mean that there is no hazard associated with the site; it merely means that, based on available information, the site does not meet the criteria for placement on the NPL. Sites not considered appropriate for the NPL might be addressed under the Resource Conservation and Recovery Act (RCRA), state cleanup programs, or other authorities such as the Nuclear Regulatory Commission (NRC).

NFRAP decisions are separate from CERCLIS archiving. NFRAP decisions are made from a site assessment perspective only; they simply denote that further Superfund remedial assessment work is not required based on currently available information. In addition, a NFRAP decision does not take into account any other Superfund programmatic activity that may be going on at the site such as a removal action or cost recovery efforts. In contrast, the archival of CERCLIS sites is made only when no further Superfund interest exists at a site. This means that sites are not archived if there are planned or ongoing removal or enforcement activities, or if other Superfund interest still exists.

1.4 National Priorities List

The NPL is the list of sites for long-term remedial evaluation and response. EPA evaluates the potential hazard of sites using the HRS. If a site has an HRS score of 28.50 or higher, the Agency may consider proposing the site to the NPL. If EPA determines the NPL is the appropriate mechanism for addressing site contamination, a proposed NPL rulemaking is published in the *Federal Register* which then initiates a public comment period. Following review of comments, EPA may finalize the site on the NPL via a final NPL rulemaking (also published in the *Federal Register*) or may remove the site from NPL consideration. A site remains on the NPL until no further CERCLA response action, including long-term maintenance and monitoring activities, is appropriate. When this condition is met, EPA deletes the site from the NPL.

In an effort to maintain coordination with the states in the NPL listing decision process, EPA issued a memorandum in November 1996 that outlines a process to continue to include state or tribal input in NPL listing decisions. This memorandum directs the Regional Administrator to solicit governor or tribal concurrence for placing a site on the NPL. A follow-up memorandum was issued in July 1997 to describe the process that will be employed in cases where an EPA Regional Office recommends proposing or placing a site on the NPL, but the state or tribe opposes listing the site.

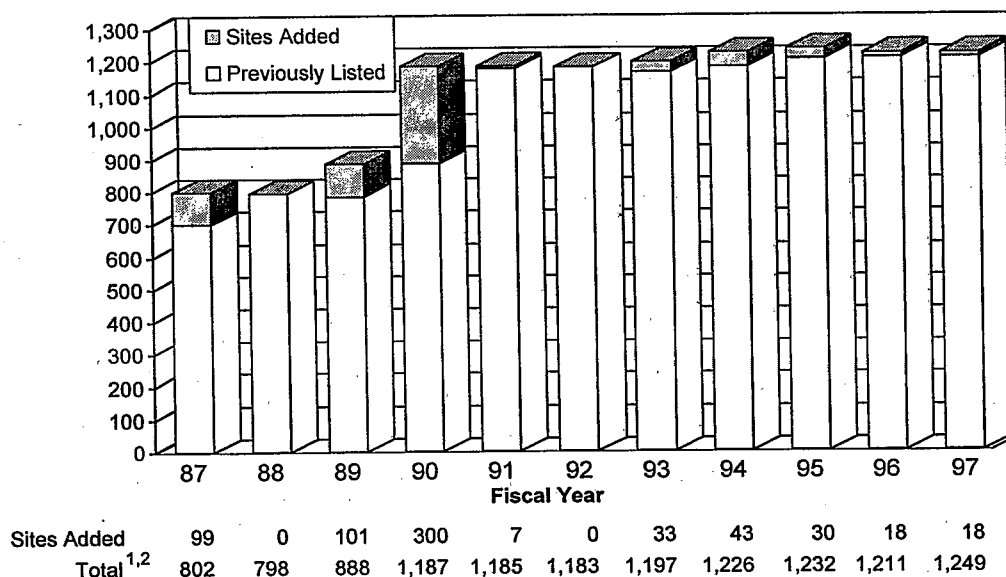
1.4.1 National Priorities List Update

At the end of FY97, there were 1,405 sites in CERCLIS that have been proposed to, listed on, or deleted from the NPL: 1,196 currently listed sites, 53 proposed sites, and 156 deleted sites where all CERCLA cleanup goals have been achieved. Exhibit 1.4-1 illustrates the historical number of final sites on the NPL for each fiscal year since SARA was enacted in 1986. Sites deleted from the NPL reflect an activity required to be reported. At the end of FY97, the sites proposed to, listed on, or deleted from the NPL consisted of the following:

- 1,238 non-federal sites: 1,048 currently listed sites, 47 proposed sites, and 143 deleted sites;

Exhibit 1.4-1

Final NPL Sites for Fiscal Year 1987 Through Fiscal Year 1997



¹ This graph illustrates *final* NPL sites only and reflects the fact that EPA deleted 13 sites from FY80 to FY86, 4 sites in FY88, 11 sites in FY89, 1 site in FY90, 9 sites in FY91, 2 sites in FY92, 11 sites in FY93, 13 sites in FY94, 25 sites in FY95, 34 sites in FY96, and 31 sites in FY97. At these deleted sites, all CERCLA cleanup objectives were achieved. In FY93, one additional site was deleted because it was deferred to another authority for cleanup. Also, eight sites were either voluntarily removed from the NPL or removed from the NPL by court order (seven sites in FY93 and one in FY94). The total of *final*, proposed, and deleted NPL sites as of September 30, 1997 was 1,405.

² The total number of sites listed final on the NPL from 1983 to 1986 was 703.

Source: Federal Register notices through September 30, 1997.

- 165 federal sites: 151 currently listed sites, 6 proposed sites, and 8 deleted sites.

Updates to the NPL during FY97 included proposal of 20 sites (19 non-federal and 1 federal facility site), final listing of 18 sites (16 non-federal and 2 federal facility sites) and deletion of 31 sites (29 non-federal sites and 2 federal facility sites). These proposals to and listings on the NPL were included in three proposed rules (NPL Proposals 21, 22, and 23) and three final rules. The proposed rules were published in the *Federal Register* on December 23, 1996 (5 non-federal sites), April 1, 1997 (5 non-federal and 1 federal facility site) and September 25, 1997 (9 non-federal sites). The final rules were published in the *Federal Register* on December 23, 1996 (7 non-federal sites), April 1, 1997 (3 non-federal and 2 federal facility sites) and September 25, 1997 (6 non-federal sites). Twenty-three sites were proposed for deletion during the fiscal year, including 19 of the 32 sites that were deleted.

1.4.2 Relationship Between CERCLIS and NPL Update

CERCLIS is used to track the discovery of potential hazardous waste sites, including those that are subsequently listed on the NPL, and to track actions at these sites. Of the 40,100 sites brought to the attention of Superfund by the end of FY97, 1,405 were either proposed to, listed on, or deleted from the NPL. Although the sites on the NPL are a relatively small subset of the inventory in CERCLIS (approximately 3.4 percent), they generally are the most complex and environmentally significant sites. Under CERCLA, EPA can only use the Trust Fund for long-term remedial actions at NPL sites. Fund money, however, can be used to conduct a removal action at a site, whether or not it is on the NPL. Chapter 4 of this report highlights progress in remediating NPL sites, and Chapter 3 of this report discusses removal actions at NPL and non-NPL sites.

1.4.3 Partial Deletions

It has always been EPA's policy to delete Superfund sites from the NPL when it determines that no further cleanup response is warranted under CERCLA. Deleting sites from the NPL can only be done with state concurrence. Previously, only entire sites could be deleted from the NPL. However, deletion of entire sites does not accurately reflect successful cleanup at individual portions of the sites. Accordingly, EPA published the Partial Deletions Policy on November 1, 1995 and it applies only to NPL sites.

EPA adopted the Partial Deletions Policy, as part of the Agency's Economic Redevelopment Initiative, in recognition of the fact that the development potential of property listed on the NPL could be negatively affected. EPA believes that partial deletions will facilitate the transfer, development, or redevelopment of property determined to be no longer contaminated allowing potential investors and developers to undertake economic activity at a cleaned up portion of real property that is part of a site listed on the NPL. Four sites in FY 1997 were either partially deleted or a notice of intent to partially delete was issued. A total of nine sites have been either partially deleted or a notice of intent to partially delete was issued since implementation of this administrative reform.

1.5 Site Evaluation Support Activities

EPA is managing a program designed to promote redevelopment of abandoned and contaminated properties, as well as addressing lead and radiation contamination because these contaminants present special hazards and problems. During FY97, EPA continued its progress under these programs. Under the Brownfields Initiative, EPA continued to work with all stakeholders to prevent, assess, safely clean up, and sustainably reuse brownfields. Under the lead program, EPA continued to work on risk assessment procedures and tools as well as provide advice on national lead issues. Under the radiation program, EPA continued to address technical complexities associated with site assessment, risk assessment, and cleanup technology evaluation for sites contaminated with radionuclides. The Agency also worked to enhance site evaluation guidance.

1.5.1 Brownfields Initiative

EPA is promoting redevelopment of abandoned and potentially contaminated properties across the country that were once used for industrial and commercial purposes ("brownfields"). While the full extent of the brownfields problem is unknown, the General Accounting Office (GAO\RCED-95-172, June 1995) estimates that approximately 450,000 brownfields sites exist in this country, affecting virtually every community in the nation. EPA believes that environmental cleanup is a building block, not a stumbling block, to economic redevelopment, and that cleaning up contaminated property must go hand-in-hand with bringing life and economic vitality back to communities.

The "Brownfields Economic Redevelopment Initiative" is a comprehensive approach to empowering states, tribes, local governments, communities and other stakeholders interested in the economic redevelopment to work together in a timely manner to prevent, assess, safely cleanup and sustainably reuse brownfields. EPA originally addressed implementation of this Initiative through the Brownfields Action Agenda. This first Action Agenda included strategies that focused on four main categories – (1) implementing Brownfields Pilot programs in cities, counties, towns and Tribes across the country; (2) clarifying liability and other issues of concern for lending institutions, municipalities, prospective purchasers, developers, property owners and others; (3) establishing partnerships with other EPA programs, federal agencies, states, tribes, municipalities, and stakeholders; and, (4) promoting community involvement by supporting job development and training activities linked to brownfield assessment, cleanup and redevelopment. As the Brownfields Initiative has matured, the need for continuation and expansion of the national brownfields response has led to introduction of the new Brownfields National Partnership Action Agenda further linking environmental protection with economic redevelopment and community revitalization. The Brownfields National Partnership Action Agenda is a two-year plan featuring commitments from more than 25 organizations including more than 15 federal agencies.

By the end of FY 1997, EPA announced the selection of 121 Brownfields Pilots to be funded through cooperative agreements at up to \$200,000 each for a two-year period. The cooperative agreements for all pilots are subject to negotiation. EPA intends the pilots to perform the following: provide redevelopment models, direct efforts toward the removal of regulatory barriers; and facilitate coordinated public and private efforts at the federal, state, and local levels. EPA awarded 23 grants to eligible assessment pilot recipients for the capitalization of revolving loan funds for the cleanup of brownfields sites.

The Agency is beginning to see results from its efforts such as the Brownfields pilot in Buffalo, NY. After removing a former Republic Steel site from CERCLIS, ATDM Corporation, partnering with Village Farms of Buffalo, agreed to clean up a portion of the site in 1997 for dedicated use as a 25-acre hydroponic tomato farm. This new business will employ approximately 300 workers in the immediate area.

EPA has signed Memoranda of Understanding (MOU) with other federal partners to coordinate issues related to brownfields redevelopment and leverage additional opportunities. EPA has signed MOUs with the Department of Housing and Urban Development (HUD), the Departments of Labor, and the Department of the Interior.

A variety of guidances and other initiatives were announced by the Agency affecting the liability aspects of the Brownfields Action Agenda. In that regard, the Agency conducted a survey of major insurance underwriters, insurance providers, and banks to determine the types of environmental insurance products available. The survey also gathered information on the need to develop further incentives for the use of these types of risk transfer mechanisms. Educating stakeholders about the availability and use of environmental insurance products further encourages redevelopment and reuse of brownfields.

On August 5, 1997, President Clinton signed the Taxpayer Relief Act (HR 2014/PL 105-34), which included a new tax incentive to spur the cleanup and redevelopment of brownfields in distressed urban

and rural areas. The Brownfields Tax Incentive builds on the momentum of the Clinton Administration's Brownfields National Partnership Action Agenda, announced in May 1997. The National Partnership outlines a comprehensive approach to the assessment, cleanup, and sustainable reuse of brownfields, including specific commitments from 15 federal agencies. The Brownfields Tax Incentive will help bring thousands of abandoned and under-used industrial sites back into productive use, providing the foundation for neighborhood revitalization, job creation, and the restoration of hope in our nation's cities and distressed rural areas.

Each EPA Region has a Brownfields coordinator position to oversee Brownfields pilots and initiate other Brownfields activities. EPA continues to be advised and informed on environmental justice issues relating to brownfields through the National Environmental Justice Advisory Council (NEJAC). The NEJAC issued a final report, "Environmental Justice, Urban Revitalization, and Brownfields: The Search for Authentic Signs of Hope." The report analyzed the findings from the public dialogues held in June and July of 1995 on revitalization and brownfields, and made recommendations. Community-based recommendations from the report are helping to shape the future course of the Brownfields Initiative from pilot application to determinations of future site redevelopment.

EPA is also working with the American Society for Testing Materials (ASTM) to develop a standard guide titled "The Process of Sustainable Brownfields Redevelopment." The purpose of the efforts is to identify the interrelationships between the financial, regulatory, and community involvement aspects of brownfields revitalization. EPA is working with ASTM to involve environmental justice and community representatives in workshops to develop the standard.

EPA is promoting and fostering job development and training through partnerships with brownfields pilot communities and community colleges. EPA is working with the Hazardous Materials Training and Research Institute (HMTRI) (funding is provided through general appropriations) to expand environmental training and curriculum development

to assist community colleges from Brownfields pilot communities in developing environmental job training programs. A workshop was held in San Francisco, California in June 1997. To date, HMTRI has worked with more than sixty community colleges. Through a cooperative agreement with Rio Hondo Community College, EPA has established an environmental education and training center to provide comprehensive technical-level training. EPA and the National Institute of Environmental Health Services (NIEHS) are working to coordinate minority worker training grant recipients with brownfields pilot city activities.

1.5.2 Lead Program Progress

Lead is one of the most frequently found toxic substances at Superfund sites. Exposure to lead at Superfund sites occurs by multiple media and EPA risk assessments consider all sources of exposure to more fully assess lead risks. In order to promote more consistent evaluations and continually improve upon our assessment and management practices, the use of Agency experts to provide advice on national lead issues has been part of the Agency's Administrative Reforms. During 1997, efforts continued to increase the involvement of site managers and senior managers in their interactions with the Lead Technical Review Workgroup.

Lead Technical Review Workgroup

The Lead Technical Review Workgroup provides advice and recommendations on lead risk assessment issues. This advice has included the development of guidance documents and review of individual risk assessments. While discussions with individual site managers have taken place on a regular basis, interactions with multiple site managers to identify information needs and prioritize activities was facilitated as a result of the formation of the Lead Sites Workgroup (LSW), a group of site managers that address lead issues from across different EPA regions and Headquarters. Coordination and information sharing were also improved in 1997 through the exchange of information with senior regional and headquarters managers.

1.5.3 Radiation Program Progress

During fiscal year 1997, EPA made progress in addressing technical complexities associated with site assessment, risk assessment, and cleanup technology evaluation for sites contaminated with radionuclides. The following activity groups included Risk Assessment, Technology Assessment, Site Evaluation and Assistance, and Emergency Response.

Risk Assessment

Work continued on two other documents supporting fate and transport modeling: (1) a technical support document on the selection of distribution coefficient (K_d) values and their use in remediation and contaminant transport modeling, and (2) a guidance document to evaluating unsaturated zone infiltration methodologies to assist remediation and contaminant transport modeling.

Technology Assessment

EPA in conjunction with the Departments of Defense (DoD), DOE, NRC, the U. S. Geological Survey, the Food and Drug Administration, and the National Institute of Standards and Technology initiated development of the the Multi-Agency Radiation Laboratory Protocols Manual (MARLAP). MARLAP will provide guidance for laboratories and project planners to assure the generation of consistent and comparable data among laboratories and to assure that laboratory data is of sufficient quality to support the site-specific environmental decisions.

Work continued on a remedial technology selection decision support guidance for Regional On-Scene Coordinators (OSCs) and Remedial Project Managers (RPMs) responsible for radioactively contaminated sites. A guidance document to assist RPMs in performing or reviewing treatability studies for radiologically contaminated sites was also being rewritten.

Site Evaluation and Assistance

The Office of Radiation and Indoor Air (ORIA) continued to provide technical assistance to the Superfund program during FY97 through

headquarters staff and staff from both ORIA laboratories. This assistance is given directly to RPMs/OSCs in addressing NPL sites contaminated with radioactive materials.

Emergency Response

EPA and the State of Texas agreed to hold a Texas/EPA radiological exercise in Austin, Texas in September 1998. The exercise will examine the ability of EPA emergency response personnel to respond to a state request for assistance under both the National Contingency Plan and the Federal Radiological Emergency Response Plan.

EPA continued working on the Radiological Emergency Response Plan which will delineate when a response is conducted under the National Contingency Plan and the Federal Radiological Emergency Response Plan. The EPA plan will also designate which office has the lead for a particular response activity.

1.5.4 Site Evaluation Regulation and Guidance

EPA published the following site evaluation guidances, regulations, and revisions pertaining to site evaluation during FY97:

"Coordinating with the States on National Priorities List Decisions," November 7, 1996.

"Coordinating with the States on National Priorities List Decisions," November 14, 1996. (Supersedes November 7, 1996). Outlines a process to continue to include state input in NPL listing decisions.

"Coordinating with States on National Priorities List Decisions – Issues Resolution Process," July 25, 1997. A follow-up memorandum that describes the process that will be employed in cases where a Regional Office of the EPA recommends proposing or placing a site on the NPL, but the state or tribes opposes listing the site.

"Using Qualified Data to Document an Observed Release and Observed Contamination," November 1996, OSWER 9285.7-14FS (Supersedes EPA July 1994).

"Cumulative Risk Assessment Guidance – Phase I Planning and Scoping," July 1997, The practice of risk assessment within the EPA is evolving away from a focus on a single pollutant in one environmental medium toward integrated assessments involving suites of pollutants in several media.

"Policy on the Issuance of Comfort/Status Letters," November 1996. EPA often receives requests from parties for some level of 'comfort' that if they purchase, develop, or operate on brownfield property, EPA will not pursue them for the costs to clean up any contamination resulting from the previous use. The majority of the concerns raised by these parties can be addressed through the dissemination of information known by EPA about a specific property and an explanation of what the information means to EPA.

"Notice of Availability of Final Draft Guidance for Developing Superfund Memorandum of Agreement Language Concerning State Voluntary Cleanup Program," Federal Register (Volume 62, Number 174) September 9, 1997. EPA has been working closely with states to develop partnerships to encourage cleanups of non-NPL hazardous substance-contaminated sites, such as brownfields.

This page intentionally left blank

Chapter 2

Emergency Response Progress

Throughout the 17-year history of Superfund, removal actions have successfully prevented, minimized, or mitigated threats to human health, welfare, or the environment. EPA and potentially responsible parties (PRPs) have initiated 4,490 removal actions to address threats posed by the release or threatened release of hazardous substances, including 252 undertaken in FY97. During FY97, the EPA continued to look for opportunities to expand the use of removal authority to rapidly reduce risks and speed the pace of overall cleanup at Superfund sites.

This chapter discusses the removal action process, the progress achieved through Superfund removals in addressing threats to human health and the environment, the contributions of the Environmental Response Team (ERT), and emergency response rulemaking and guidance development.

2.1 Removal Action Process

Removal actions are taken in response to a release or threat of release of a hazardous substance or of a pollutant or contaminant that may present an imminent and substantial danger to the public health or welfare. Examples of situations that may warrant removal actions include chemical spills or fires at production or waste storage facilities, transportation accidents involving hazardous substances, and illegal disposal of hazardous waste (midnight dumping). A removal action can occur at any point in the Superfund process. Managed by a federal On-Scene Coordinator (OSC), a removal action is often short-term, and addresses the most immediate threats. Removals comply with substantive applicable or relevant and appropriate requirements (ARARs) to

the extent practicable, given the exigencies of the situation. ARARs are substantive requirements of federal and more stringent state environmental laws.

When notified of a release or threat of release that may require a removal action, the Agency (or lead-Agency) conducts a removal site evaluation to determine the source and nature of the release, the threat to public health and the environment, and whether an appropriate response has been initiated. A removal site evaluation could be completed in minutes or months, depending on the specific incident and the information available to determine the need for a removal action. When the removal site evaluation is completed, the Agency reviews the results and other factors to determine the appropriate extent of a removal action. At any point in this process, EPA may refer the site for further evaluation or determine that no further action is necessary. When it concludes that a removal action is required, the Agency undertakes an appropriate response to minimize or eliminate the threat.

The Agency defines three kinds of removal actions based on the time available before a response action must be initiated. "Emergency" removal actions require a prompt response at the site. "Time-critical" removal actions are conducted when the Agency (or lead Agency) concludes that the action must begin within six months. For "non-time-critical" removal actions, the planning period may extend for more than six months; during this planning period, the lead agency conducts an engineering evaluation/cost analysis for the response actions and seeks public comment on the response options.

To document the selection of a response action, the Agency prepares an action memorandum that states the authority for initiating the action, the action to be taken, and the basis for selecting the response. EPA also establishes an administrative record, compiling the documents that form the basis for the selection of the response action. The following sections discuss additional aspects of the removal action process, including community involvement, the role of the OSC, and CERCLA limitations on the scope of removal actions.

Community Involvement in Removal Actions

EPA provides many opportunities for community involvement during the removal process. The Agency appoints an official spokesperson to keep the public informed of the progress of a given removal action. The administrative record file and index of documents maintained at the central location is made available to the public (except confidential portions) at a repository at or near the site and at EPA offices. If the removal action is expected to continue beyond 120 days, the lead agency must involve local officials and other parties in the process through such

activities as community interviews and a community relations plan.

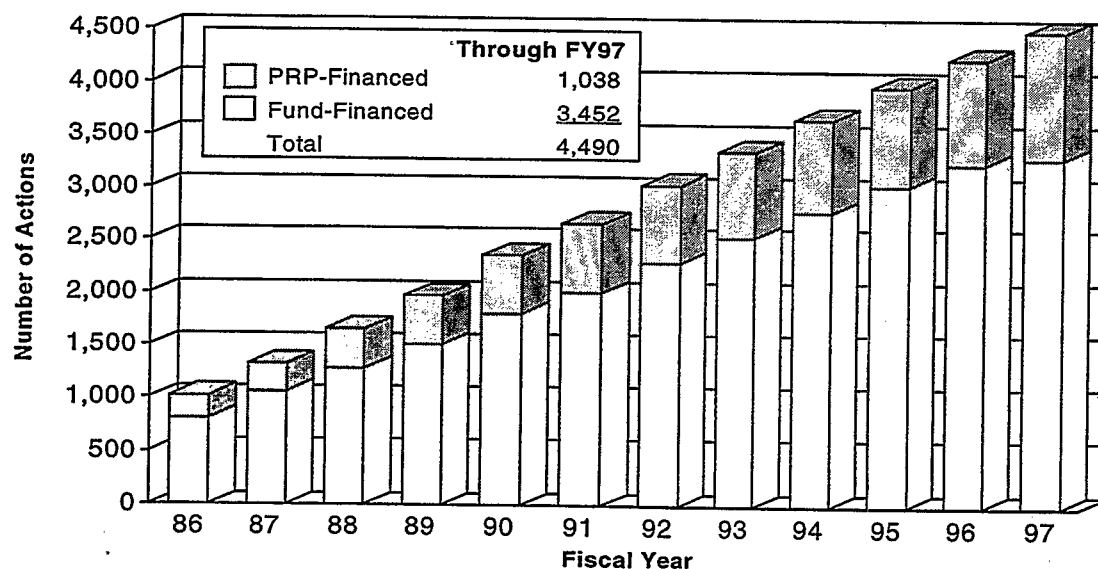
The On-Scene Coordinator

The OSC organizes, directs, and documents the removal action. The specific responsibilities of the OSC include conducting field investigations, monitoring on-scene activities, and overseeing the removal action. The OSC is required to prepare the action memoranda including description of the need for a removal response, the proposed action, and the rationale for the removal for all fund-financed actions conducted under removal authority. In addition, if requested by the National Response Team, the OSC will prepare a final report that describes the site conditions prior to the removal action, the removal action performed at the site, and any problems that occurred during the removal action.

Fund-Financed Removal Action Statutory Limits

Removal actions are generally short-term, relatively inexpensive responses to releases or threats

**Exhibit 2.2-1
Cumulative Removal Action Starts**



Source: CERCLIS (as of September 30, 1997).

of releases that pose a danger to human health, welfare, or the environment. Accordingly, Congress included limitations on removal actions in CERCLA. The cost of a removal action is limited to \$2 million, and the duration is limited to one year. Congress established exemptions from these limitations for specific circumstances. A removal action may exceed the monetary and time limits if:

- Continued response is required immediately to prevent, limit, or mitigate an emergency; there is an immediate threat to public health, welfare, or the environment; and such action cannot otherwise be provided on a timely basis; or
- Continued response action is otherwise appropriate and consistent with the remedial action (RA) to be taken.

2.2 Fiscal Year 1997 Progress

Since the inception of Superfund, the Agency and PRPs have begun 4,490 removal actions at

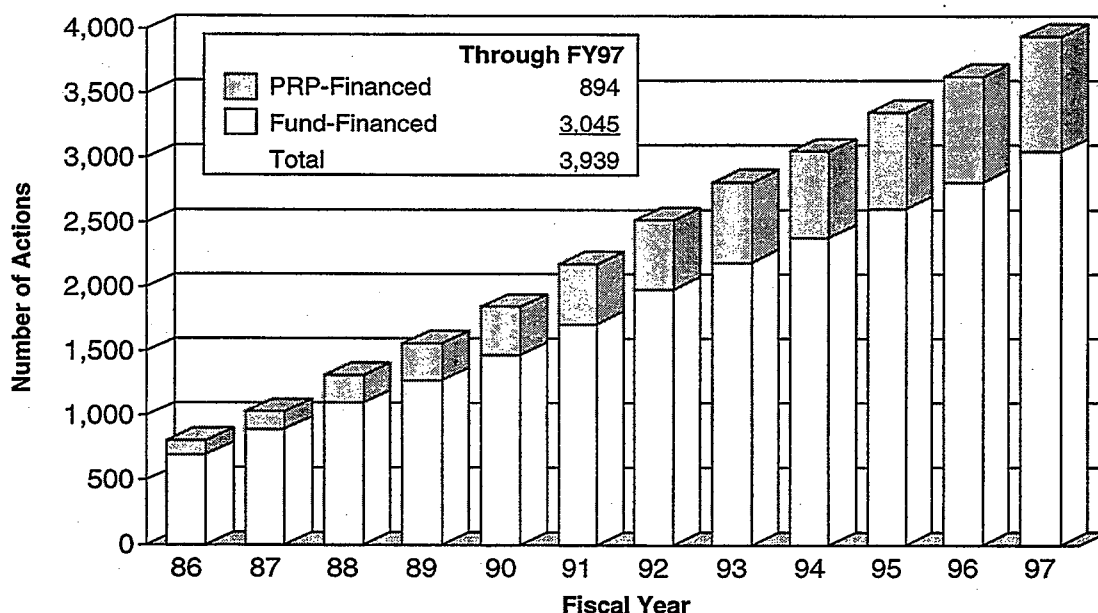
National Priorities List (NPL) and non-NPL sites to address threats to human health, welfare, or the environment posed by releases or potential releases of hazardous substances.

2.2.1 Status Report on Removal Progress

Of the 4,490 removal actions undertaken by EPA and PRPs under the Superfund program, 252 were started in FY97 (see Exhibit 2.2-1). Of these 252 removal actions, PRPs financed 43 and EPA financed 209. The removal actions started by PRPs included 12 removal actions at NPL sites and 31 removal actions at non-NPL sites. EPA started 23 removal actions at NPL sites and 186 removal actions at non-NPL sites. The 252 removal actions begun by EPA and PRPs in FY97 compared to 267 started in FY96.

As shown in Exhibit 2.2-2, EPA and PRPs have completed 3,939 removal actions under the Superfund program, including 315 in FY97. Of the 315 removal actions completed during the fiscal year,

**Exhibit 2.2-2
Cumulative Removal Action Completions**



Source: CERCLIS (as of September 30, 1998) and FY97 Superfund Senior Management Reports.

PRPs financed 85, including 23 at NPL sites and 62 at non-NPL sites. EPA financed 230 of the completed removal actions, including 31 at NPL sites and 199 at non-NPL sites. The 315 actions completed by EPA and PRPs in FY97 compared with 276 completed by EPA and PRPs in FY96.

Removal actions that were begun but are not yet complete are considered "ongoing." Ongoing removals include actions that have been in progress less than 12 months at the end of a fiscal year and removal actions that have been granted exemptions from the statutory one-year duration limit. Sites where a removal action has taken place, but the contaminants have not yet been transported to a disposal facility are also defined as having ongoing removals.

Chapter 3

Remedial Progress

The Agency's progress during FY97 illustrated its continuing commitment to accelerating and completing cleanups at Superfund sites. The Agency started more than 102 remedial actions (RAs) to construct remedies, and completed construction activities to place 88 sites in the construction completion category. To date under the Superfund program, the Agency has placed a total of 498 National Priorities List (NPL) sites in the construction completion category. This chapter describes the remedial progress during the fiscal year. Specifically, this chapter provides information on:

- Status on all remedial actions undertaken in FY97, as required by CERCLA Section 301(h)(1)(F);
- Remedies selected during FY97, as required by CERCLA Section 301(h)(1)(A);
- FY97 results of five-year reviews under CERCLA Section 121(c) at sites where contamination remained after the initiation of the RA, as required by CERCLA Section 301(h)(1)(E); and
- FY97 efforts to develop and use innovative treatment technologies, including an evaluation of newly developed and achievable permanent treatment technologies, as required by CERCLA Section 301(h)(1)(D).

3.1 Remedial Process

The remedial process complements the removal process (see Chapter 2) by addressing more complicated, long-term evaluation and response for

hazardous waste sites on the NPL. The remedial process is preceded by the site evaluation process, which consists of the discovery or identification of a potential site, the preliminary assessment of the site, and the site inspection (SI). During the SI, the site is evaluated for possible listing on the NPL. If a site is listed on the NPL after the SI, the Trust Fund can be used to finance clean-up activities at the site under the remedial authority of CERCLA.

The remedial process to clean up NPL sites is comprised of the following activities:

- The remedial investigation/feasibility study (RI/FS) to determine the type and extent of contamination and to evaluate and develop remedial clean-up alternatives;
- The record of decision (ROD) to identify the remedy selected, based on the results of the RI/FS and public comment on the clean-up alternatives;
- The remedial design (RD) to develop the plans and specifications required to construct the selected remedy;
- The remedial action (RA) to implement the selected remedy, from the start through the completion of construction of the remedy; and
- Operation and maintenance (O&M) to ensure the effectiveness and/or integrity of the remedy. O&M occurs after implementation of a response action.

A Remedial Project Manager (RPM) oversees all remedial activities and related enforcement activities.

Regional coordinators at EPA Headquarters assist RPMs by reviewing remedial and enforcement activities and by answering technical and policy questions.

3.2 Fiscal Year 1997 Remedial Status

The Agency's progress during the fiscal year in initiating RAs and completing construction activities to classify sites as construction completions indicates its continuing commitment to accelerate the cleanup of NPL sites. By the end of FY97, work had occurred at 98 percent of the 1,405 NPL sites. In addition, over 156 sites were deleted from the NPL. Exhibit 3.2-1 illustrates the status of the work at NPL sites, showing sites by the most advanced stage of activity accomplished. The following sections of this chapter highlight progress made at the sites during FY97.

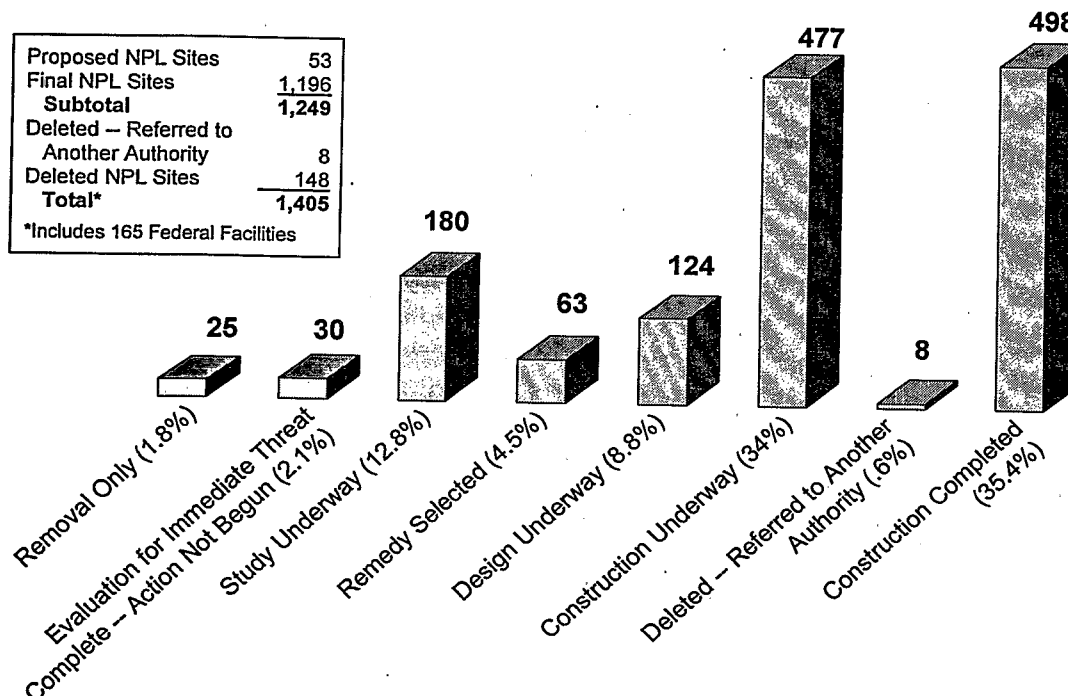
3.2.1 Construction Completions

Responding to the recommendations of the 1991 30-Day Study and the 1993 Superfund Administrative Improvements Task Force, the Agency has worked to accelerate and complete cleanup at NPL sites. The Agency completed construction activities at 88 sites during FY97, bringing the total number of sites in the construction completion category to 498. More than 44 percent of the construction completions have been achieved in the past three years.

3.2.2 New Remedial Activities

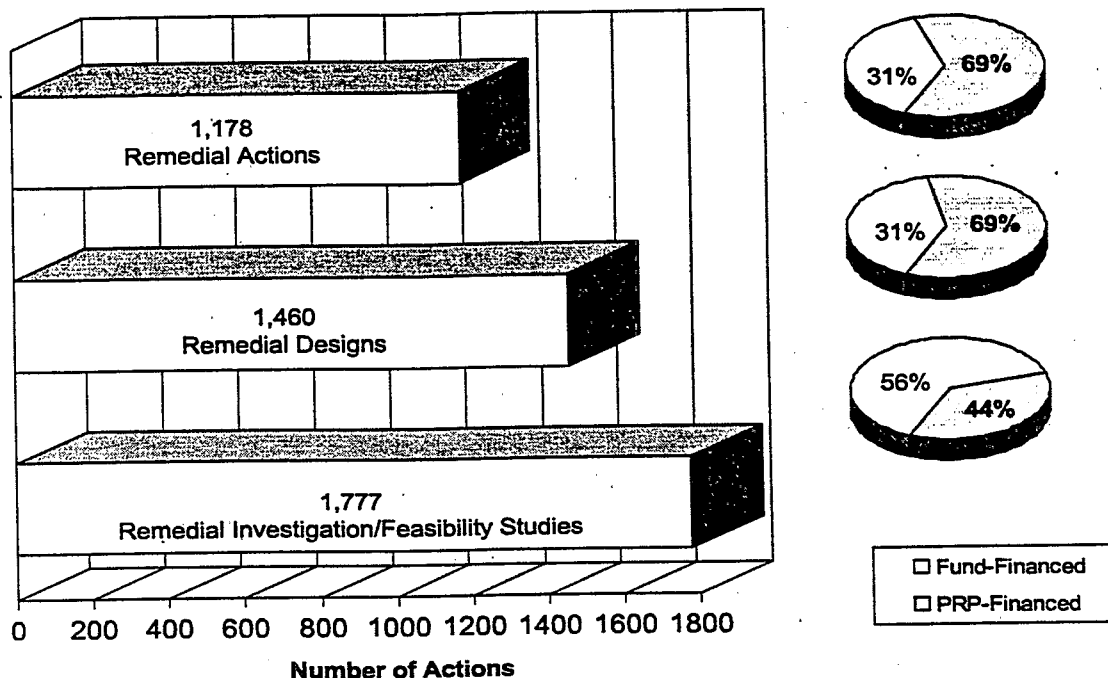
As shown in Exhibit 3.2-2, the Agency or potentially responsible parties (PRPs) had undertaken approximately 1,777 RI/FSSs, 1,460 RDs, and 1,178 RAs since the inception of the Superfund program through the end of the FY97.

Exhibit 3.2-1
Work Has Occurred at Over 85 Percent of the National Priorities List Sites



Source: CERCLIS (as of September 30, 1997).

Exhibit 3.2-2
Remedial Accomplishments Under the Superfund Program
for Fiscal Year 1980 Through Fiscal Year 1997



Source: CERCLIS (as of September 30, 1997).

The remedial activities started during FY97 reflect the Agency's continued emphasis on accelerating the pace of cleanup and focusing resources on RAs. New remedial activities undertaken this fiscal year include:

RI/FS Starts: The Agency or PRPs started 41 RI/FSs during FY97, including 23 (56 percent) financed by EPA and 18 (44 percent) financed by PRPs. For comparison, in FY96 the Agency or PRPs started 36 RI/FSs, including 26 (72 percent) financed by EPA and 10 (28 percent) financed by PRPs.

RD Starts: The Agency or PRPs started 72 RDs during FY97, including 22 (31 percent) financed by EPA and 50 (69 percent) financed by PRPs. For comparison, in FY96 the Agency or PRPs started 74 RDs, including 20 (27 percent) financed by EPA and 54 (73 percent) financed by PRPs.

RA Starts: The Agency or PRPs started 102 RAs during FY97. EPA financed 32 (31 percent) and PRPs financed 70 (69 percent). For comparison, in

FY96, the Agency or PRPs started approximately 116 RAs, including 34 (29 percent) financed by EPA and 82 (71 percent) financed by PRPs.

3.2.3 In Progress Remedial Activities

At the end of FY97, 1,793 RI/FS, RA, and RD projects were in progress at 815 sites. For comparison, at the end of FY96 1,766 RI/FS, RA, and RD projects were in progress at 845 sites. Projects in progress at the end of FY97 included 1,494 RI/FS and RA projects and 299 RD projects. As required by CERCLA Sections 301(h)(1)(B),(C), and (F), a listing of the RI/FS and RA projects in progress at the end of FY 97 is provided in Appendix A, along with a projected completion schedule for each project. A listing of all RDs in progress at the end of FY97 is provided in Appendix B.

Of the 1,494 RI/FS and RA projects in progress at the end of FY97, 55 percent were on schedule, ahead of schedule, started during the fiscal year, or had no previously published completion schedule,

Exhibit 3.2-3
Projects in Progress at National Priorities List Sites
by Lead for Fiscal Year 1996 and Fiscal Year 1997

	RI/FS		RDs		RAs	
	FY96	FY97	FY96	FY97	FY96	FY97
Fund-Financed—State-Lead	20	24	20	15	37	43
Fund-Financed—Federal-Lead ¹	136	138	77	80	110	137
Fund-Financed—EPA Performs Work at Site ²	8	8	0	0	2	3
PRP-Financed and PRP-Lead	161	126	192	144	268	295
Mixed Funding—Monies from Fund and PRPs	3	3	0	1	6	13
PRP-Financed—State Order and EPA Oversight ³	22	23	11	13	29	29
State Enforcement	2	2	1	0	0	0
Federal Facility	450	484	69	46	142	166
Total	802	808	370	299	594	686
¹ Includes remedial program-lead projects and enforcement program-lead projects. ² Projects at which EPA employees, rather than contractors, perform the site cleanup work. ³ Projects where site cleanup work is financed and performed by the PRPs under state order, with EPA oversight.						

Sources: CERCLIS (as of September 30, 1997); *Progress Toward Implementing Superfund Fiscal Year 1996*.

and 45 percent were behind schedule. These projects include 211 on schedule, 30 ahead of schedule, 299 started during the fiscal year, 279 that had no previously published completion schedule, and 675 that were behind schedule. Exhibit 3.2-3 compares the number of projects in progress at NPL sites at the end of FY97 with the number in progress at the end of FY96, by lead.

PRPs were conducting 421 of the RI/FS and RA projects in progress at the end of FY97, including 126 RI/FSs and 295 RAs. Of these 421 PRP-financed projects, 49 percent were on schedule, ahead of schedule, started during the fiscal year, or had no previously published completion schedule, and 51 percent were behind schedule. Projects include 58 on schedule, 4 ahead of schedule, 85 started during the fiscal year, 60 that had no previously published completion schedule, and 214 that were behind schedule.

3.3 Remedial Selection

The Agency signed 168 RODs in FY97, including 43 new and amended RODs for PRP-financed sites, 34 RODs for Fund-financed sites, and 91 RODs for federal facility sites. For comparison, in FY96, 156 RODs were signed, including 44 new and amended RODs for PRP-financed sites, 31 RODs for Fund-financed sites, and 81 RODs for federal facility sites. The ROD documents the results of all studies performed on the site, identifies each remedial alternative that the Agency considered, and explains the basis for selecting the remedy. The ROD is signed after the RI/FS is completed and the public has had the opportunity to comment on the remedial alternatives that are being considered to clean up the site.

The Agency selected a variety of remedies in FY97 RODs, based on a careful analysis of

characteristics unique to each site and the proximity of each site to people and sensitive environments (wetlands and endangered wildlife are examples of environmental resources that are taken into consideration when evaluating remedies). Congress, with the enactment of SARA, indicated that EPA should give preference to permanent remedies, such as treatment, rather than temporary remedies, such as containment.

To fulfill the statutory requirement of CERCLA Section 301(h)(1)(A) to provide an abstract of each feasibility study (i.e., ROD), the National Technology Information Service (NTIS) can provide requested RODs. Appendix C provides detailed information on how to make these ROD requests.

3.4 Facilities Subject to Review Under CERCLA Section 121(c)

Certain remedies, such as containment remedies, allow hazardous substances, pollutants, or contaminants to remain on site if they do not pose a threat to human health or the environment. CERCLA Section 121(c), as amended by SARA, requires that any post-SARA remedial action that results in any hazardous substances, pollutants, or contaminants remaining at the site be reviewed at least every five years after the initiation of such remedial action. Such reviews assure that human health and the environment are being protected by the selected remedial action. These five-year reviews are referred to as "statutory" reviews. Section 121(c) requires the Agency to report to Congress a list of facilities for which such review is required, the results of all such reviews, and any actions taken as a result.

As a matter of policy, EPA also conducts a five-year review for sites where hazardous substances, pollutants, and contaminants will not remain on site upon completion of the remedy, but where the remedy will take longer than five years. These policy reviews are conducted every five years until the remedial action is complete and achieves cleanup levels that allow for unlimited use and unrestricted exposure. Additionally, at least one policy review is conducted for pre-SARA sites where upon attainment of the ROD cleanup levels, the remedial

action will not allow for unlimited use and unrestricted exposure.

"Policy" reviews were announced in Office of Solid Waste and Emergency Response (OSWER) Directive 9355.7-02, May 23, 1991, *Structure and Components of Five-Year Reviews*. Guidelines for the conduct of five-year reviews were further articulated in two supplemental directives in 1994 and 1995. The determination of whether a site requires a statutory or policy five-year review is generally made based on information provided in the ROD.

FY97 was the seventh year in which sites were eligible for five-year review. Headquarters data indicated that a total of 105 sites required five-year reviews in FY97. A total of 76 five-year reviews were completed in FY97, as illustrated in Exhibit 3.4-1. Thirty-two of the 76 reviews were due in prior fiscal years. Seventeen reviews were completed early and were due in later fiscal years. Headquarters data initially suggested that four of the reviews were not required. However, the Regions identified these sites as requiring reviews and submitted reports.

Of the 76 sites that were reviewed during FY97, 62 required statutory reviews and 14 required policy reviews. EPA determined that the remedies continue to protect human health and the environment at 72 of the 76 sites. Ongoing remedies are included among those considered protective. For the four remaining sites, the review reports either did not make a protectiveness determination or stated that remedies do not currently protect human health and the environment. These four sites are addressed below:

- 1) The Oak Grove Sanitary Landfill stated that the state ranking of the site with the designation of D indicates protectiveness in accordance with state regulations.
- 2) The Aberdeen Proving Ground (APG), White Phosphorus Dump Zone (WPDZ) report stated: "Institutional controls in place at APG restrict trespass of any kind. As the access controls have been in existence for approximately eighty years, the risk posed from human exposure remain low."

3) The Enterprise Avenue Landfill report determined that the site is not protective of human health and the environment since post-deletion investigations discovered contaminated soils and contaminated shallow groundwater aquifers that put a deeper, sole-source aquifer at risk. The EPA and the City of Philadelphia are taking steps to make the remedy protective.

4) The Saegertown Industrial Area report deemed operable unit 1 not protective of human health and the environment, but stated that operable unit 2 is protective. The report noted that data being generated by new monitoring wells will be evaluated to determine if the selected remedy at operable unit 1 should be modified due to contamination west of French Creek.

**Exhibit 3.4-1
Sites at Which Five-Year Reviews
Were Conducted During Fiscal Year 1997**

Region	State	Site Name	Review Date	Type
1	NH	Auburn Road Landfill (2 nd review) ¹	9/29/97	Statutory
1	MA	Hanscom Field/Hanscom Air Force Base ⁴	9/15/97	Statutory
1	NH	Keefe Environmental Services (2 nd review) ²	9/29/97	Statutory
1	CT	Kellogg-Deering Well Field (2 nd review) ²	9/30/97	Policy
1	ME	Winthrop Landfill (2 nd review) ²	9/30/97	Policy
2	NJ	Bog Creek Farm ³	9/26/97	Statutory
2	NY	Forest Glen Mobile Home Subdivision ³	9/26/97	Statutory
2	NY	Katonah Municipal Well ³	9/30/97	Statutory
2	NJ	Lipari Landfill ³	9/3/97	Statutory
2	NY	Old Bethpage Landfill ³	9/30/97	Statutory
2	NY	Sinclair Refinery ¹	9/30/97	Statutory
2	NJ	South Brunswick Landfill ³	9/17/97	Statutory
2	PR	Upjohn Facility ³	11/18/96	Statutory
2	NJ	White Chemical Corp. ³	9/30/97	Statutory
3	MD	Aberdeen Proving Ground - WPDZ ²	7/11/97	Statutory
3	PA	Ambler Asbestos Piles ¹	5/27/97	Statutory
3	VA	Avtex Fibers Inc. ³	11/18/96	Statutory
3	PA	Bendix Flight Systems Division ²	7/23/97	Policy
3	PA	Brown's Battery Breaking ¹	9/8/97	Statutory
3	VA	Defense General Supply Center ²	9/29/97	Statutory
3	DE	Dover Air Force Base ¹	7/24/97	Statutory
3	PA	Enterprise Avenue ⁴	7/14/97	Policy
3	WV	Fike Chemical ³	10/28/96	Statutory
3	PA	Havertown PCP Site ³	7/3/97	Statutory
3	PA	Heleva Landfill (2 nd review) ²	8/26/97	Statutory
3	PA	Hranica Landfill ²	4/16/97	Statutory
3	PA	Industrial Lane ²	6/10/97	Statutory
3	PA	Publicker Industries ⁴	10/2/96	Statutory
3	VA	Rhinehart Tire Fire Dump ³	9/12/97	Statutory
3	PA	Saegertown Industrial Area ²	8/6/97	Statutory
3	VA	Saltville Waste Disposal Ponds ³	9/30/97	Statutory

Region	State	Site Name	Review Date	Type
4	TN	Amnicola Dump ²	9/30/97	Statutory
4	TN	Lewisburg Dump ¹	9/26/97	Statutory
4	NC	Martin Marietta-Sodyeco Inc. ³	10/30/96	Statutory
4	KY	Newport Dump (2 nd review) ²	9/23/97	Statutory
5	IL	Acme Solvent Reclaiming Inc. (Morristown Road) ²	9/30/97	Statutory
5	OH	Alsco Anaconda ¹	6/23/97	Statutory
5	MN	Arrowhead Refinery Co. ³	9/30/97	Policy
5	OH	Bower's Landfill ³	7/23/97	Statutory
5	OH	E.H. Schilling Landfill ²	9/29/97	Statutory
5	WI	Eau Claire Municipal Well Field ³	9/29/97	Statutory
5	MI	Forest Waste Products ³	3/28/97	Statutory
5	IN	Main Street Well Field ²	9/30/97	Policy
5	MN	Oak Grove Sanitary Landfill ¹	9/16/97	Statutory
5	WI	Oconomowoc Electroplating Co. Inc. ³	9/29/97	Policy
5	MI	Ott/Story/Cordova Chemical ³	8/13/97	Statutory
5	IL	Outboard Marine Corp./Johnson ³	9/30/97	Statutory
5	OH	Pristine Inc. ³	5/28/97	Statutory
5	MI	Rose Township Dump ¹	7/18/97	Statutory
5	IN	Seymour Recycling Corp ³	3/27/97	Statutory
5	MN	University of Minnesota ¹	6/6/97	Statutory
5	MI	Velsicol Chemical Mich ⁴	8/27/97	Policy
5	IL	Wauconda Sand & Gravel Co. ³	5/30/97	Statutory
5	WI	Wheeler Pit ¹	4/8/97	Statutory
6	AR	Mid-South Wood Products ³	6/16/97	Statutory
6	NM	United Nuclear Corp. ³	6/30/97	Statutory
7	KS	Arkansas City Dump ³	8/22/97	Statutory
7	IA	E.I. DuPont Nemours (County Road X23) ¹	6/19/97	Statutory
7	MO	Fulbright Landfill ³	12/9/96	Statutory
7	NE	Hastings Groundwater Contamination ²	5/27/97	Statutory
7	KS	Johns' Sludge Pond (2 nd review) ³	5/6/97	Policy
7	IA	Northwestern States Portland Cement Co. ¹	6/25/97	Statutory
7	MO	Solid State Circuits ²	12/12/96	Policy
7	MO	Syntex Facility-Verona ³	9/30/97	Statutory
8	CO	Chemical Sales Co. OU1 (2 nd review) ¹	9/29/97	Statutory
8	UT	Monticello Mill Tailings (DOE) ¹	2/13/97	Statutory
8	UT	Monticello Radioactivity Contaminated Properties ³	2/13/97	Statutory
8	UT	Rose Park Sludge Pit (2 nd review) ¹	8/5/97	Policy
9	CA	Micro Storage/Intel Magnetics ¹	10/31/96	Policy
9	CA	Synertek (Building #1) ¹	10/31/96	Policy
10	WA	Fort Lewis Logistic Center (Includes Landfill #4) ¹	9/30/97	Statutory
10	OR	Gould Inc. ¹	9/26/97	Statutory
10	WA	Lakewood Site ¹	9/24/97	Policy

Region	State	Site Name	Review Date	Type
10	WA	Northside Landfill ¹	9/19/97	Statutory
10	ID	Pacific Hide & Fur Recycling Co. ³	9/25/97	Statutory
10	WA	Silver Mountain Mine ¹	7/16/97	Statutory

1) Due in FY97; 2) Early -- due after FY97; 3) Late -- due prior to FY97; 4) Review Not Previously Required.

Source: Five-Year Review Program Implementation and Management System (November 20, 1998).

3.5 Superfund Innovative Technology Evaluation Program

The SITE program, which completed its 12th year in FY97, was established in direct response to legislative mandate under the Superfund Amendments and Reauthorization Act (SARA). The program is considered the pioneer and model program for demonstrating and evaluating full-scale, viable, innovative treatment technologies at hazardous waste sites.

In response to a comprehensive program review, in FY96 the SITE program shifted from a technology-driven focus to a more integrated approach driven by the needs of the waste remediation community. The new goals of the program are to interact with the user community, understand its needs, integrate those needs with EPA's research mission, and expeditiously address those needs.

The next generation of SITE can be defined by the following operating principles.

Matching the site needs with innovative technology solutions: Sites will be solicited and prioritized based on (1) the demonstration needs of the user, and (2) the research focus areas identified by EPA (such as groundwater treatment, *in situ* treatment, and metals in soil treatment).

Conducting technology field demonstrations: SITE will rapidly conduct field demonstrations of high technical quality to verify performance of remediation technologies. The resulting data and reports are intended for use by site owners and government decision-makers in selecting remediation options. The data reports add credibility to technology vendors for promoting their processes.

Information transfer: Information transfer activities ensure that valuable technical information is disseminated to increase awareness and promote products evaluated under the program for use at site cleanups. Information transfer activities consist of technical networking, publications, electronic distribution, Internet, and conference exhibits.

Program quality planning: Overall program direction and strategies will be evaluated each year based on responses from the user community. Information gathered through networking with the user community will be incorporated into the program planning process.

Exhibit 3.5-1 displays three of the four components of the program with the number of FY97 accomplishments. These components include the demonstration program, emerging technology program, and the characterization and monitoring program. The fourth component, technology transfer, involves publication and distribution of SITE program results.

Exhibit 3.5-1 FY97 SITE Program Accomplishments

	FY97 Projects	Cumulative Projects
Demonstration Program	9	95
Emerging Technology Program	7	66
Characterization and Monitoring Program	6	37

Source: Technology Innovation Office.

Chapter 4

Enforcement Progress

The Superfund enforcement program uses the enforcement provisions of CERCLA, as amended by SARA, to maximize the involvement of potentially responsible parties (PRPs) in the cleanup of Superfund sites. The Agency's enforcement goals are to:

- Maintain high levels of PRP participation in conducting and financing cleanup through use of EPA's statutory authority;
- Ensure fairness and equity in the enforcement process; and,
- Recover Superfund monies expended by EPA for response actions.

FY97 accomplishments illustrate the continuing success of EPA's Superfund enforcement efforts.

4.1 The Enforcement Process

The Superfund program integrates enforcement and response activities. To initiate the enforcement process, EPA identifies PRPs, notifies them of their potential liability under CERCLA, and seeks to initiate negotiations aimed at an agreement with the PRPs to perform or pay for cleanup. If agreement is reached, the Agency oversees the work performed under the legal settlement. If the PRPs do not settle, EPA may issue a unilateral administrative order (UAO) compelling them to perform the work. If PRPs do not comply with the UAO, EPA may then take over the site, and conduct the cleanup itself using Superfund monies. The Agency later may pursue PRPs to recover costs incurred. These steps are important for obtaining PRP involvement in conducting response activities and recovering

expended Trust Fund monies. The Superfund enforcement process is explained in more detail below.

- When a site is being proposed for the National Priorities List (NPL), or when a removal action is required, EPA conducts a PRP search to identify parties who may be liable for site cleanup and collect evidence of their liability. PRPs include present and past owners or operators of the site, generators of waste disposed of at the site, and transporters who selected the site for the disposal of hazardous wastes.
- EPA notifies parties of their potential liability for future cleanup work and any past response costs incurred by the government, thus beginning the negotiation process between the Agency and the PRPs.
- EPA encourages PRPs to settle with the Agency and undertake cleanup activities, specifically to start removal actions, remedial investigation/feasibility studies (RI/FSs), or remedial design/remedial action (RD/RA). If PRPs are willing and capable of doing the response work, the Agency will attempt to negotiate an agreement allowing the PRPs to conduct and finance the proposed work and reimburse past government costs. For RD/RA, the settlement must be in the form of a judicial consent decree (CD) that is lodged by the Department of Justice (DOJ). For other types of response actions, the agreement will usually be in the form of an administrative order on consent (AOC) negotiated and signed by the EPA. Both agreements are enforceable in a court of law.

Under either agreement, PRPs conduct the response work under EPA oversight. PRPs who settle may later seek contribution toward the cost of the cleanup from non-settling PRPs by bringing suit against them.

- If negotiations do not result in a settlement, CERCLA Section 106 provides EPA with the authority to issue a UAO requiring the PRPs to conduct the cleanup; EPA may also bring suit through DOJ to compel PRPs to perform the work. If the Agency issues a UAO and the PRPs do not comply, the Agency again has the option of filing a lawsuit to compel the performance specified in the order, or to perform the work itself. The Agency can then seek cost recovery and treble damages. Where the PRP notifies EPA in writing of its intent to comply with a UAO, EPA considers the PRP in compliance, and may allow them to perform the cleanup. Although UAOs in compliance are technically not legal settlements, they are counted as such

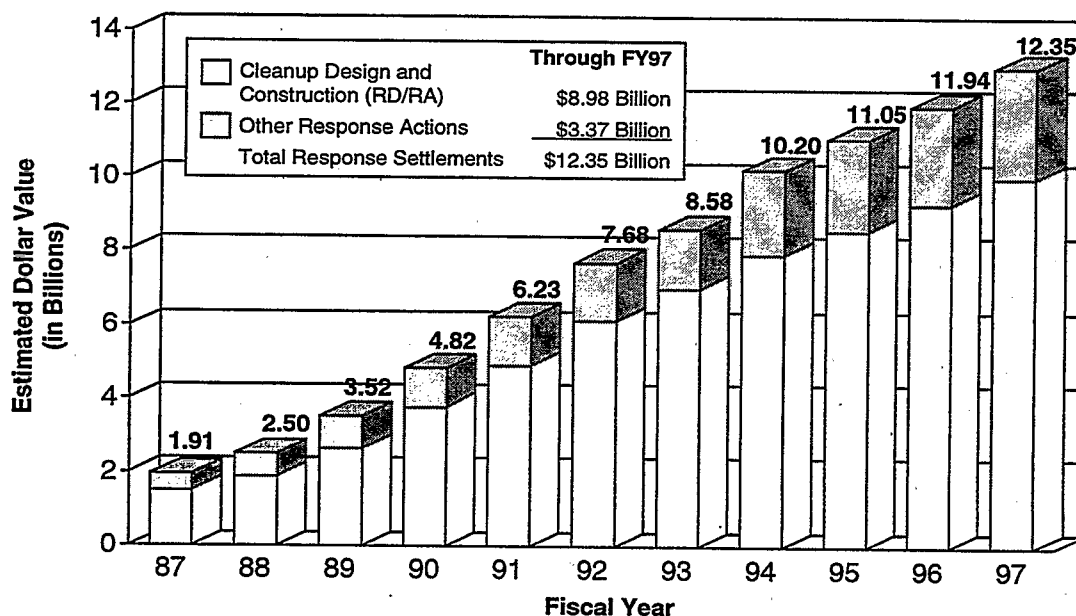
programmatically because they result in PRPs performing cleanup work.

- If a site is cleaned up using Superfund monies, DOJ will file suit on behalf of EPA, when practicable, to recover monies spent. Many of these suits to recover past costs will also include EPA claims for estimated future costs. Any sums recovered from the PRPs are returned to the Trust Fund.

4.2 Fiscal Year 1997 Superfund Enforcement Progress

FY97 progress reflects the continuing success of Superfund enforcement efforts in securing PRP participation in Superfund cleanup and recovering Trust Fund monies expended by EPA in its response efforts.

Exhibit 4.2-1
Cumulative Value of Response Settlements
Reached With Potentially Responsible Parties



Source: CERCLIS (as of September 30, 1997).

4.2.1 Settlements for Response Activities

During FY97, the Agency reached 164 settlements (CDs, AOCs, CAs, or UAOs in compliance) with PRPs for response activities worth over \$451 million. As shown in Exhibit 4.2-1, the cumulative value of PRP response settlements achieved under the Superfund program is almost \$12.35 billion.

Of the 164 response settlements achieved in FY97, 59 settlements worth over \$335 million were for RD/RA. These RD/RA settlements included 33 CDs referred to DOJ, 16 AOCs and consent agreements, and 10 UAOs in compliance. These RD/RA settlements include 47 RD/RA negotiations started and 46 RD/RA negotiations completed by EPA during the fiscal year.

In FY97, the Agency signed a total of 171 administrative orders on consent, and issued 67 unilateral administrative orders. The UAOs issued

and the AOCs signed include agreements for removal actions, RD/RAs, RDs, and RI/FSs.

4.2.2 PRP Participation in Cleanup Activities

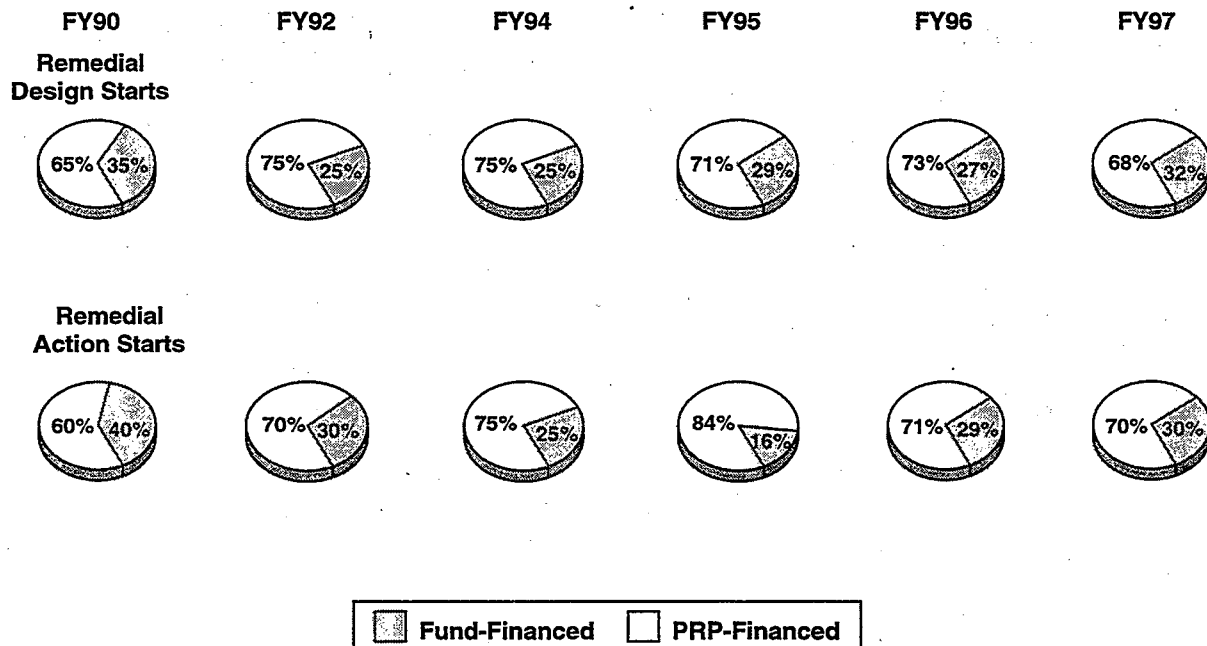
Exhibit 4.2-2 illustrates the continuing high level of PRP participation in undertaking and financing RDs and RAs since the implementation of the "Enforcement First" initiative in 1989.

In FY97, PRPs continued to finance and conduct a high percentage of the remedial work undertaken at Superfund sites: 70 percent of new RAs and 68 percent of new RDs.

4.2.3 Cost Recovery Achievements

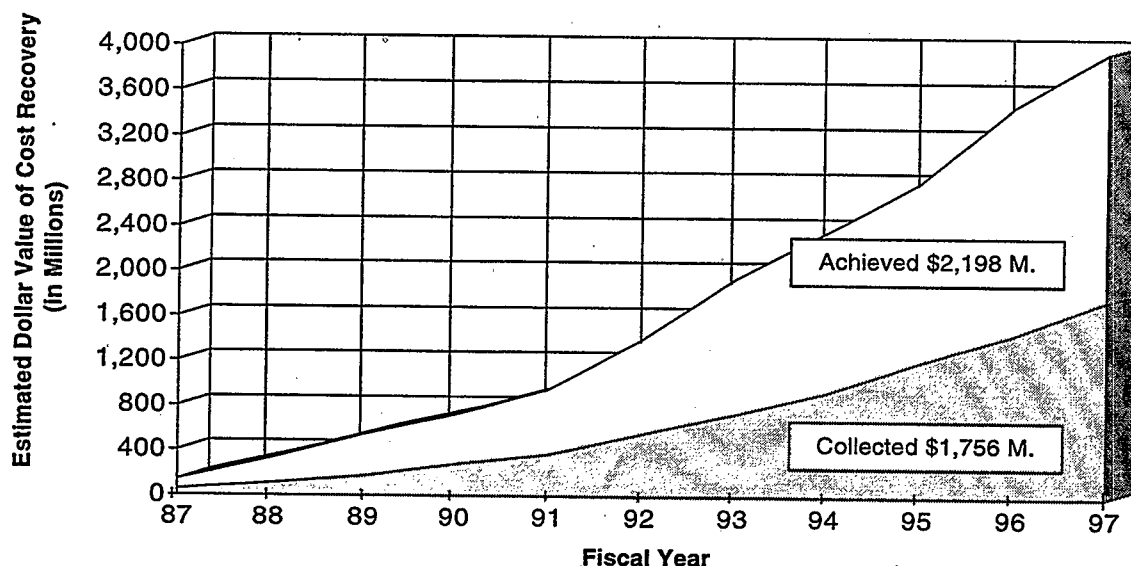
EPA and DOJ achieved 197 cost recovery settlements worth nearly \$158 million. These included addressing past costs, valued at \$200,000 or more, at 191 sites. The cost recovery program has

Exhibit 4.2-2
Percentage of Remedial Designs
and Remedial Actions Started by PRPs



Source: Office of Enforcement Compliance Assurance.

Exhibit 4.2-3
Cumulative Value of Cost Recovery Dollars Achieved and Collected



Source: Office of Enforcement Compliance Assurance.

achieved nearly \$2.2 billion in cost recovery settlements since the inception of Superfund. Exhibit 4.2-3 illustrates cost recovery settlements achieved and collected to date.

EPA collected over \$316 million from cost recovery settlements, bankruptcy settlements, and fines and penalties during the fiscal year for a total of \$1,756 million collected by EPA to date.

4.3 Enforcement Initiatives

During FY97, EPA continued to build upon prior administrative reform successes. Currently, more than 70 percent of long-term cleanup actions are financed by potentially responsible parties (PRPs). The enforcement reforms are designed to make Superfund a fairer program, while reducing transaction costs to promote effective and efficient settlements.

Fairness. Continuing to ensure fairness in enforcement was the primary objective of the reforms

and activities undertaken in FY97. EPA's Office of Site Remediation Enforcement (OSRE) continued to implement, evaluate, and learn from Administrative Reforms that were initiated in prior fiscal years. First, EPA issued "Addendum to the 'Interim CERCLA Settlement Policy' Issued on December 5, 1994," which expanded the orphan share reform by allowing for compromise of past costs to offset potential orphan share at a site. Second, the Unilateral Administrative Orders (UAOs) Reform has been expanded over the fiscal year by expanding documentation requirements for non-issuance of UAOs by EPA staff. Third, de micromis parties will be protected through the use of special waivers written into settlement agreements. Fourth, nine Superfund sites are allocation process pilots to facilitate settlements between PRPs and the EPA. Fifth, a policy on comfort/status letters was issued to provide an administrative tool for facilitating Brownfield redevelopment projects. Sixth, EPA established an undue financial hardship standard to determine a PRP's ability to pay (ATP) cleanup costs. Seventh, an interim policy was issued on

settlement penalty and punitive damage claims for noncompliance with administrative orders. Finally, an interpretive policy statement was issued for the Asset Conservation, Lender Liability, and Deposit Insurance Protection Act of 1996.

Reducing Transaction Costs. During FY97, EPA continued to focus on identifying and implementing procedures for reducing the time and costs associated with Superfund enforcement. First, EPA continued to update its guidances on special accounts. Second, EPA developed a national work group to improve oversight administration with prompt and accurate billings at Superfund sites. These enforcement initiatives are described in more detail below.

4.3.1 Orphan Share Compensation

Under CERCLA's joint and several liability scheme, viable PRPs are required to assume the liability share of insolvent or defunct parties who are unable to pay the costs of cleanup (i.e., the orphan share). In the past, many incentives have been provided to help PRPs settle claims and cleanup contaminated sites. This reform continues to follow the 1996 Interim Guidance which examined alternative means of orphan share compensation. In FY97, the "Addendum to the 'Interim CERCLA Settlement Policy' Issued on December 5, 1994" was enacted to supplement 'Interim CERCLA Settlement Policy' Issued on December 5, 1994" was enacted to supplement the reform.

The guidance establishes factors addressing potential compromises of CERCLA cost recovery claims based on the existence of a significant orphan share. The size of the orphan share, the PRP's cooperation with the government and other PRPs, and the fairness to all parties must be considered to compromise a claim. An orphan share may be considered as an "inequity" or an "aggravating factor" at sites with an insolvent or defunct party. Regions will continue to use the "Interim CERCLA Settlement Policy" when cost recovery settlements are less than 100 percent of the response.

In FY97, EPA offered to compromise orphan shares worth over \$53 million to parties who agreed to conduct cleanup at 20 Superfund sites. The range

of compensation was \$38,524 to \$15 million with an average of \$2.5 million per site.

EPA actions at the Operating Industries, Inc. Landfill in Monterey Park, California demonstrate the Agency's commitment to offering orphan share compensation. The EPA offered \$15 million to 270 PRPs in orphan share compensation associated with this site. The total cost of the cleanup was estimated at \$217 million.

4.3.2 Equitable Issuance of Unilateral Administrative Orders

It has been EPA's policy to issue Section 106 unilateral administrative orders (UAOs) to the largest *manageable* number of parties, after taking into account the adequacy of evidence of liability, financial viability, and waste contribution. In FY97, EPA continued to implement its reforms regarding the issuance of UAOs. To ensure that UAOs are implemented fairly and equitably, EPA issued documentation requirements for regional enforcement staff. These requirements explain why certain PRPs are not issued a unilateral order. In FY97, two-thirds of UAOs (40 of 60) excluded certain PRPs, however, most of these parties were excluded for reasons consistent with existing policy.

EPA actions at the Spelter Smelter Site in Spelter, West Virginia, demonstrate the Agency's commitment in identifying UAO parties in a fair and equitable manner. In EPA Region 3, two parties were issued a UAO, however, three parties were excluded due to financial hardship. Consistent with the new reform, the Region documented specific reasons why these parties were omitted from the UAO.

4.3.3 Revised De Micromis Guidance

For contributors of extremely small volumes of waste ("de micromis parties") at Superfund sites, transaction costs may exceed a party's proportional share of response costs. In June 1996, EPA issued the "Revised Guidance on CERCLA Settlements with de Micromis Waste Contributors," modifying and superseding the 1993 guidance on de micromis settlements. The revised policy and associated model settlement documents are designed to discourage third party contribution litigation against de micromis

parties and, where necessary, improve EPA's ability to resolve their liability concerns quickly and fairly. In FY97, EPA announced its plans to protect de micromis parties from large party contributors through the use of waivers in settlement agreements.

In FY97, EPA succeeded in reducing Superfund liability for de micromis parties. In 40 percent of RD/RA consent decrees executed in FY97, defendants waived claims against de micromis parties. Furthermore, where de micromis parties were pursued for contribution, EPA routinely attempted to protect the smallest volume contributors from Superfund liability. For example, at the Cherokee Oil Resources Site in Charlotte, North Carolina, EPA entered into settlements with over 200 small volume contributors. In addition to these settlements, major contributors waived their rights to pursue over 1000 de micromis parties.

4.3.4 Allocation Pilots

In 1995, EPA originated pilots to help achieve allocation costs between parties under Superfund. Under the Pilots, a neutral allocator prepares an allocation report that assigns responsibility to each party involved at a site; parties may settle on their allocated share with the EPA. EPA is responsible for 100 percent of the orphan share, which consists of the shares of allocation parties who are insolvent or defunct.

During FY97, twelve allocation pilots were offered; three pilots declined from the allocation process because settlement was possible outside of the allocation process. The nine remaining pilots are at various stages of the allocation process.

4.3.5 Site-Specific Accounts

CERCLA provides EPA with the authority to retain and use funds for future cleanup work that were received as a result of settlements with PRPs. EPA has used this authority to create special accounts at individual sites. In FY96, the EPA reached an agreement with the Office of Management and Budget (OMB) and the Department of Treasury that interest can accrue directly to special accounts. This agreement benefits parties who enter into settlements with the EPA at Superfund sites

because settlement payments designated for future work will now both earn and retain interest. In FY97, EPA updated and supplemented its special accounts guidance with additional documentation requirements to make it easier for Regional Finance Offices to more accurately apply special account monies to past and future response costs. EPA plans to develop a financial guidance to supplement the FY96 and FY97 program guidances. A guidance is also planned on how to disburse special account funds to parties conducting cleanup at Superfund sites.

In FY97, Regions established 34 special accounts with an aggregate balance of approximately \$75 million. As of the end of FY97, EPA had opened a total of 93 accounts with an aggregate balance of \$405 million, including \$353 million in principal and \$52 million in interest. The following examples illustrate the success of this reform in making site-specific accounts available for response actions at Superfund sites:

- **Cherokee County Superfund Site in Kansas.** \$2.25 million in special account funds will be used to conduct future cleanup work at this site, which entails groundwater and surface water remediation, soil cleanup, and public water supplies.
- **Jasper County Superfund Site in Missouri.** \$5.9 million in special account funds will be used to conduct future cleanup work at this site, which may entail public water supplies and/or individual water treatment units, surface water remediation, and engineering controls.

4.3.6 Improving PRP Oversight Administration

As the Superfund program has matured, parties developed substantial expertise in performing cleanup activities. Many of these parties perform high quality cleanups and work closely and cooperatively with EPA. On July 31, 1996, EPA issued a policy memorandum entitled "Reducing Federal Oversight at Superfund Sites with Cooperative and Capable Parties." The memorandum set guidelines for determining PRP cooperativeness and capability, which are extremely

important factors in determining whether to reduce EPA cleanup oversight. EPA may reduce federal oversight of remedial and non-time-critical removal actions performed by PRPs at Superfund and non-Superfund sites if guidelines are met.

In FY97, a national work group was established to encourage Regions to improve oversight administration at sites having capable and cooperative PRPs. The goal of the work group was to establish and improve working relationships with PRPs. The work group identified NPL sites with capable and cooperative PRPs, and notified them of EPA's proposal for improving oversight administration.

4.3.7 Issuance of Comfort/Status Letters

Currently, the EPA is implementing its Brownfields Economic Redevelopment Initiative, which is designed to promote the reuse of undeveloped, abandoned, industrial or commercial facilities that are complicated by environmental contamination. Comfort/status letters are intended to provide EPA with an administrative tool that can be used to remove the specter of future liability from Brownfield redevelopment projects. These letters offer a measure of "comfort" with respect to the potential for federal cleanup liability under CERCLA. Comfort/status letters allow parties with an interest in a property to make an informed decision regarding the likelihood of federal cleanup action.

Sample comfort/status letters have been developed for sites not listed in active CERCLIS records, sites in the Superfund pre-remedial evaluation process, sites with possible federal interest, and sites where states are overseeing cleanup under state authority.

4.3.8 Ability to Pay Determinations

The Office of Site Remediation Enforcement (OSRE) developed a policy to help determine a party's acceptable ability to pay in Superfund cases. The policy consists of two phases: the "balance sheet phase" and the "income and cash flow statement phase." These phases have been combined into a financial hardship standard to determine a

PRP's ability to pay Superfund cleanup costs. The standard is intended to expedite settlement with parties that have a limited ability to pay, thereby reducing their transaction costs in a fair manner. In FY97, ability to pay settlements were established for 19 settlements.

Ability to pay (ATP) settlements focus on the interest accruing on Superfund trust fund monies and on the PRPs financial well being. Settlements cannot cause undue financial hardship to individuals dependent on a PRP.

EPA has established seven criteria that must be met in order for a claim of undue financial hardship to be considered:

- The PRP has demonstrated that paying the full cost of cleanup will cause financial hardship;
- The ATP candidate cannot be discharged from site-related responsibilities;
- The candidate must request an ATP settlement from the EPA;
- An ATP analysis must be performed to determine a party's financial well-being;
- Each person involved in an ATP settlement must be defined under CERCLA;
- The settlement should require that the ATP candidate recover all expenses associated with the site (*i.e.*, insurance recoveries); and,
- The settlement should resolve all of the ATP candidate's liability expenses for response costs at the site.

4.3.9 Penalty and Punitive Damage Claims for Noncompliance with Administrative Orders

In FY97, EPA issued an interim policy on settlement penalty and punitive damage claims for noncompliance with administrative orders. Under CERCLA sections 106 (b)(1) and 107 (c)(3), civil penalties may be assessed when EPA enforces an administrative order. Punitive damages may also be

assessed when Superfund monies have been spent as a result of noncompliance with an administrative order. The goal of this policy is to help the Agency gain experience with administrative order compliance.

EPA created a penalty calculation that incorporates harm, and equitable adjustment factors from a "harm recalcitrance" matrix. Unlike existing policy, the degree of responsibility is incorporated into the matrix by analyzing the PRPs involvement at a site and their ability to finance an administrative order. The penalty calculation and its supporting matrix provide substantial incentive for historically recalcitrant PRPs to comply with UAOs.

4.3.10 Lender and Fiduciary Liability Amendments

The Asset Conservation, Lender Liability, and Deposit Insurance Protection Act of 1996 was enacted in FY97. The act includes lender and fiduciary liability amendments, amendments to the creditor exemption in Subtitle I of RCRA, and validates the portion of EPA's "CERCLA Lender Liability Rule" that addresses involuntary acquisitions by the government. EPA issued an interpretative policy statement on CERCLA provisions to guide implementation. Under this policy, the amendments define key terms and list activities that a lender may undertake without forfeiting the exemption. This act also amends the section of RCRA (9003 (h)(9)) that provides a secured creditor exemption pertaining to underground storage tanks (USTs).

4.3.11 Successful Enforcement Accomplishments

Highlights of nine selected FY97 accomplishments throughout the enforcement program are summarized in Exhibit 4.3-1.

Exhibit 4.3-1
Highlights of Successful Enforcement Accomplishments

<p>Davis Liquid Waste Rhode Island (Region 1)</p> <p>Settlement: Consent Decree (CD06) for PRP lead RD/ RA at Operable Unit 3, and cost recovery for RD/RA at Operable Unit 1 lodged on November 26, 1996 at the Federal District Court.</p> <p>Estimated Value: \$32,100,000</p>	<p>EPA reached a Consent Decree with 54 settling parties to perform remedial activities at the Davis Liquid Waste site in Smithfield, Rhode Island. The Consent Decree was lodged with the United States District Court for the District of Rhode Island in November of 1996. Remedial Action costs were estimated at \$32,100,000.</p> <p>The site was a disposal facility for hazardous substances including paint and metal sludges, oily wastes, solvents, acids, caustic pesticides, phenols, halogens, metals, fly ash, and laboratory pharmaceuticals. Wastes that contaminated the soil, surface water, and groundwater included volatile organic compounds (VOCs), organics, inorganics, metals, arsenic, benzene, trichloroethylene (TCE), 1,1-DCE. In 1977, this hazardous waste disposal site was closed by court order. In August of 1982, EPA awarded a \$336,182 Cooperative Agreement to Rhode Island for a remedial investigation and feasibility study (RI/FS) to determine the extent of the contamination and to identify alternatives for remedial action. From 1985 to 1986, a removal action shipped 600 drums off site to an approved disposal facility. The final cleanup remedy entails excavating 25,000 cubic yards of raw waste and contaminated soils for on-site treatment using thermal desorption, and treating on-site groundwater. In March 1997, the settling parties began to perform the work described in the Consent Decree.</p>
--	--

<p>Barceloneta Landfill Puerto Rico (Region 2)</p> <p>Settlement: Consent Decree (CD01) for PRP lead RD/RA and cost recovery for combined RI/FS at Operable Unit 1 was referred on September 30, 1997.</p> <p>Estimated Value: \$11,830,485</p>	<p>The EPA reached a Consent Decree on September 30, 1997, for remedial activities at the Barceloneta Landfill. Remedial Action costs were estimated at \$11,830,485.</p> <p>Various heavy metal and volatile organic compounds (VOCs) in sludges have been identified from sampling at this site. There is also toluene in the surface water and heavy metals in the water runoff. In 1983, EPA sent notice letters to potentially responsible parties. In 1988, an extensive study began on the pollution problems at this site. An Administrative Order on Consent was signed in September of 1990 by parties who agreed to complete the site remediation. A site investigation and the Feasibility Study were completed in March and September of 1995, respectively. On December 27, 1995, EPA issued a Proposed Plan which described an alternative to capping the landfill. To discuss this alternative, a public meeting was held on January 18, 1996. A Record of Decision (ROD) was signed in June 1996 requiring the capping of three disposal areas with a low permeability cover system. On September 30, 1997, a Consent Decree (CD01) for RD/RA was signed.</p>
<p>Paoli Rail Yard Pennsylvania (Region 3)</p> <p>Settlement: Consent Decree (CD06) for PRP lead RD/RA at Operable Unit 2 and cost recovery for remedial community relations and a preliminary assessment were lodged on July 28, 1997 at the Federal District Court.</p> <p>Estimated Value: \$21,150,000</p>	<p>Amtrak, Conrail, and SEPTA are conducting cleanup activities at the Paoli Rail Yard in Chester County, Pennsylvania. The estimated cost of cleanup is \$21,150,000. This site consists of an electronic train repair facility and a commuter rail station. Samples taken from the site in 1984 indicated a severe PCB problem.</p> <p>In July 1992, EPA signed a final Record of Decision (ROD) requiring excavation and treatment of soil from the rail yard, nearby residential areas, and contaminated stream sediments. EPA issued an order to conduct the cleanup of residential soils and stream sediments on September 30, 1996. The PRPs signed an action order to conduct Remedial Design on April 17, 1997. The CD for Remedial Action was lodged, but has not yet been entered. Currently, EPA is planning to redevelop this site after cleanup activities are complete.</p>

<p>Saltville Waste Disposal Ponds Virginia (Region 3)</p> <p>Settlement: Consent Decree (CD02) was lodged May 15, 1997 for PRP lead RD/RA at Operable Unit 3, and combined RI/FS and remedial community relations at Operable Unit 1 at the Federal District Court.</p> <p>Estimated Value: \$36,379,000</p>	<p>EPA reached a Consent Decree with a major PRP, the Olin Corporation, to perform remedial activities at the Saltville Waste Disposal Ponds in Saltville, Virginia. The clean-up remedies include modifying the on-site treatment plant, collecting groundwater, and long-term monitoring. The estimated value of this Remedial Action is \$36,379,000.</p> <p>Mercury-contaminated wastewater and process waste from soda ash manufacturing had been disposed in two large ponds near the facility. A preliminary investigation called for surface water diversions, the construction of a treatment plant, and future investigations. In June 1987, EPA issued a ROD which documented interim measures at this site to address immediate threats. The treatment plant was completed in the summer of 1994. In the fall of 1995, a remedy was selected to cap 75 acres of the site, install groundwater interceptor trenches, and treat the groundwater. EPA also took prompt action on off-site concerns. Two Administrative Orders on Consent were established with Olin and the EPA to address environmental concerns. At Operable Unit 1, the treatment plant continues to remove mercury from Pond 5 groundwater. At Operable Unit 3, additional sampling was conducted to produce a Focused Feasibility Study to evaluate alternatives for clean-up. The work completed by Olin saved the trust fund \$1,500,000.</p>
<p>Union Carbide Corp. Ohio (Region 5)</p> <p>Settlement: Administrative Order by the EPA signed on March 4, 1997, for PRP Removal at Operable Unit 1, and cost recovery for PRP Removal.</p> <p>Estimated Value: \$50,115,000</p>	<p>At the Union Carbide Corporation site in Ohio cleanup activities are being conducted under an Administrative Order signed on March 4, 1997. The estimated cost of cleanup is \$50,115,000.</p> <p>The main contaminants at this active landfill are dioxin and VOCs. Under Operable Unit 1, the sole PRP, Union Carbide Corporation, is excavating contaminated soil and placing it in a regulated onsite facility. Treatment systems are also being installed at the site for ground water remediation. Future cleanup involves capping two or three areas of the landfill. An eight month plan for soil cleanup, quality assurance and groundwater design, and a soil vapor extraction system were also developed throughout fiscal year 1997.</p>

<p>Marco of Iota Louisiana (Region 6)</p> <p>Settlement: Administrative Order (03) was signed on September 9, 1997, by the EPA, for removal action cost recovery.</p> <p>Estimated Value: \$728,939</p>	<p>EPA reached an administrative cost recovery settlement with 193 parties including de micromis parties, <i>de minimis</i> parties, and other parties at the Marco of Iota site in Iota, Louisiana.</p> <p>This facility was closed in February 1992 when EPA determined that it was operating as an unpermitted hazardous waste treatment, storage, and disposal site. Contaminants included acids, arsenic, white phosphorus, flammable liquids, flammable gases, and corrosives. The Region packaged, transported, and disposed of the wastes because of the immediate threat of the hazardous substances. An Administrative Order was issued to resolve the liabilities of the PRPs. The total value of the settlement was estimated at \$728,939.</p>
<p>Hayford Bridge Road Groundwater Site Montana (Region 8)</p> <p>Settlement: Administrative Order (04) by EPA on September 23, 1997 for a PRP fund lead RA at Operable Unit 1.</p> <p>Estimated Value: \$243,000</p>	<p>EPA reached a <i>de minimis</i> settlement with 22 PRPs for PRP fund lead Remedial Action at the Hayford Bridge Road Groundwater site in Charles, Montana.</p> <p>Until 1973, the Findett Company, recycled PCBs, oil, and chlorinated solvents. In 1973, they converted the business to a custom chemical manufacturer. PCBs, oils, and chlorinated solvents have contaminated on-site soils, adjacent property soils, and the groundwater. In 1988, EPA issued a Record of Decision (ROD) that selected a ground water pump and treat remedy. Remediation of the on-site contamination is now being implemented. Bioremediation will also occur. The contaminated soils on adjacent properties will be handled in the future as a Removal Action.</p>
<p>Lorentz Barrel & Drum Co. California (Region 9)</p> <p>Settlement: Administrative Order (04) on September 17, 1997 for Remedial Design cost recovery at Operable Unit 1.</p> <p>Estimated Value: \$1,042,297</p>	<p>EPA reached a <i>de minimis</i> settlement with 80 PRPs for cost recovery for Remedial Design pertaining to the Lorentz Barrel & Drum Co. located in San Jose, California.</p> <p>The site was used as a drum recycling operation. Several investigations indicated heavy metals, organics, and PCBs in the soil and groundwater. A Consent Decree was signed in 1990 with 11 PRPs to design, construct, and operate a groundwater treatment system. In 1992, seven PRPs signed an Administrative Order on Consent (AOC) to remove contaminated buildings, sumps, drums, debris, and asbestos waste from the site. In 1996, the remaining building debris and contaminated soil was moved to a regulated off-site facility. On September 17, 1997, an Administrative Order on Consent (AOC) was issued to recover EPA and State past costs from the settling parties.</p>

Montrose Chemical Corp.
California (Region 9)

Settlement: Consent Decree (CD02) lodged on March 25, 1997 in the Federal District Court for cost recovery for RD/RA, combined RI/FS and removal activities.

Estimated Value: \$21,860,000

EPA reached a Consent Decree with the U.S. Department of Justice, state and federal natural resources trustees, and 155 municipalities to resolve liability at the Palos Verdes Shelf, a section of the Montrose Chemical Corp. site in Torrance, California. The Consent Decree was lodged in the Federal District Court on March 25, 1997. Remedial action costs are estimated at \$21,860,000.

The Montrose Chemical Corporation was a facility that manufactured the pesticide DDT from 1947 until 1982. The wastewater from the DDT production discharged into the Los Angeles sewer system that empties into the Pacific Ocean. Wastes that contaminated and affected the nearby aquifers, wells, sewer systems, and soils included DDT, monochlorobenzene (MCB), and VOCs. In 1983, an Administrative Order was issued to study the nature and extent of contamination. These studies were expanded under additional orders in 1985, 1987, and 1989. A joint feasibility study is being conducted with the adjacent Del Amo facility to construct a remedy for cleaning up the groundwater contamination at both sites. On March 25, 1997, a Consent Decree was lodged to resolve the liability of settling parties with respect to natural resource damages at the Palos Verdes Shelf and response costs associated with the Montrose site. The Consent Decree also provides the parties with contribution protection. In late 1997, the groundwater remedy was chosen. EPA also expects to propose a cleanup action for the Palos Verdes Shelf. Interim measures and a long-term remedial phase are the focus of cleaning up the Montrose Chemical Corp. site.

This page intentionally left blank

Chapter 5

Federal Facility Cleanups

Federal departments and agencies manage a variety of industrial activities at more than 27,000 installations. Due to the nature of such activities, whether they are federally or privately managed, federal installations may be contaminated with hazardous substances and therefore subject to CERCLA requirements. Although federal facilities comprise only a small percentage of the community regulated under CERCLA, many federal facilities are larger and more complex than their private industrial counterparts and are likely to host continuing activities. Because of their size and complexity and the existence of ongoing activities, compliance with environmental statutes may present unique management issues for federal facilities.

5.1 The Federal Facilities Program

CERCLA Section 120(a) requires that federal facilities comply with CERCLA requirements to the same extent as private facilities. Executive Order 12580 delegates the President's authority under CERCLA to federal departments and agencies, making them responsible for cleanup activities at their facilities. At federal facilities that are National Priorities List (NPL) sites, which are sites having the highest priority for remediation under Superfund, CERCLA mandates that cleanups be conducted under interagency agreements (IAGs) between EPA and relevant federal agencies. States are often a party to these agreements as well. To ensure federal facility compliance with CERCLA requirements, EPA provides technical advice and assistance and may take enforcement action when appropriate.

In addition to CERCLA, there is a range of authority and enforcement tools under state statutes that apply to non-NPL federal facility sites. Indian

tribes also may be involved in federal agency compliance with environmental regulations when acting as either lead or support agencies for Superfund response actions.

5.1.1 Federal Facility Responsibilities Under CERCLA

Federal departments and agencies are responsible for identifying and addressing hazardous waste sites at the facilities that they own or operate. They are required under CERCLA to comply with all provisions of federal environmental statutes and regulations and all applicable state and local requirements during site cleanup.

5.1.2 EPA's Oversight Role

EPA oversees federal facility cleanup activities and provides cleanup assistance to federal agencies. EPA's responsibilities include:

- listing sites on the NPL,
- negotiating IAGs,
- promoting community involvement through site-specific advisory boards and restoration advisory boards,
- selecting or assisting in the determination of cleanup remedies,
- concurring with cleanup remedies,
- providing technical advice and assistance,
- overseeing cleanup activities,

- reviewing federal agency pollution abatement plans, and
- resolving disputes regarding noncompliance.

To fulfill these responsibilities, EPA relies on personnel from Headquarters, Regional offices, and states. This includes personnel from the Federal Facilities Enforcement Office (FFEO) in the Office of Enforcement and Compliance Assurance (OECA) and the Federal Facilities Restoration and Reuse Office (FFRRO) in the Office of Solid Waste and Emergency Response.

To track the status of a federal facility, EPA uses several information systems. The Facility Index System provides an inventory of federal facilities subject to environmental regulations. Through the CERCLA Information System (CERCLIS), EPA maintains a comprehensive list of all reported potentially hazardous waste sites, including federal facility sites. CERCLIS also contains cleanup project schedules and achievements for federal facility sites. A list of federal facility sites potentially contaminated with hazardous waste, which is required by CERCLA Section 120(c), is made available to the public through the Federal Agency Hazardous Waste Compliance Docket and through routine docket updates published in the *Federal Register*.

5.1.3 The Roles of States and Indian Tribes

Under the provisions of CERCLA Section 120(f), state and local governments are encouraged to participate in planning and selecting remedial actions to be taken at federal facility NPL sites within their jurisdiction. State and local government participation includes, but is not limited to, reviewing site information and developing studies, reports, and action plans for the site. EPA encourages states to become signatories to the IAGs that federal agencies must execute with EPA under CERCLA Section 120(e)(2). State participation in the CERCLA cleanup process is carried out under the provisions of CERCLA Section 121.

Cleanups at federal facility sites not listed on the NPL are carried out by the federal agency that owns or operates the site. Federal agencies use the

CERCLA cleanup process outlined in the National Oil and Hazardous Substances Pollution Contingency Plan at these sites, often under state or EPA oversight. In addition to CERCLA, these cleanups are subject to state laws regarding response actions. A state's role at a non-NPL federal facility site, therefore, will be determined both by that state's cleanup laws and CERCLA.

CERCLA Section 126 mandates that federally recognized Indian tribes be afforded substantially the same treatment as states with regard to most CERCLA provisions. Thus, the role of a qualifying Indian tribe in a federal facility cleanup would be substantially similar to that of a state. To qualify, a tribe must be federally recognized; have a tribal governing body that is currently performing governmental functions to promote the health, safety, and welfare of the affected population; and have jurisdiction over a site.

5.2 Fiscal Year 1997 Progress

FFEO and FFRRO, in conjunction with other EPA Headquarters offices, Regional offices, and states, ensure federal department and agency compliance with CERCLA and Resource Conservation and Recovery Act requirements. Progress in achieving federal facility compliance may be measured by the status of federal facility sites on the Federal Agency Hazardous Waste Compliance Docket and on the NPL, and by the execution of IAGs for federal facility sites.

5.2.1 Status of Facilities on the Federal Agency Hazardous Waste Compliance Docket

Federal facilities where hazardous waste is managed or from which hazardous substances have been released are identified on the Federal Agency Hazardous Waste Compliance Docket. The docket was established under CERCLA Section 120(c) and functions as an important record in the Superfund federal facilities program. Information submitted to EPA on identified facilities is compiled and maintained in the docket and then made available to the public.

The initial federal agency docket was published in the *Federal Register* on February 12, 1988. At that time, 1,095 federal facilities were listed on the docket. The June 27, 1997, docket update listed a total of 2,104 facilities. Of this total, the Department of Defense (DoD) owned or operated 958 (46 percent) of the facilities and the Department of the Interior (DOI) owned or operated 453 (22 percent). The remainder were distributed among 18 other federal departments, agencies, and instrumentalities.

5.2.2 Status of Federal Facilities on the NPL

To distinguish the increasing number of federal facility NPL sites from non-federal NPL sites, NPL updates list federal facility sites separately from non-federal sites. NPL updates also contain language that clarifies the roles of EPA and other federal departments and agencies with regard to federal facility sites. Consistent with Executive Order 12580 and the National Oil and Hazardous Substances Pollution Contingency Plan, EPA is typically not the lead agency for federal facility sites on the NPL; federal agencies are usually lead agencies for their own facilities. EPA is, however, responsible for overseeing federal facility compliance with CERCLA. At the end of FY97, there were 157 federal facility sites proposed to or listed on the NPL. These sites included six proposed sites and 151 final sites. In addition, eight sites were deleted from the NPL.

Federal departments and agencies made substantial progress during FY97 toward cleaning up federal facility NPL sites. Activity at federal facility NPL sites during the year included the start of approximately 62 remedial investigation/feasibility studies (RI/FSs), 62 remedial designs (RDs), and 67 remedial actions (RAs). During FY97, 91 records of decision (RODs) were signed, and ongoing activities included 494 RI/FSs, 74 RDs, and 169 RAs.

5.2.3 Interagency Agreements Under CERCLA Section 120

IAGs are the cornerstone of the enforcement program for federal facility NPL sites. They are enforceable documents and contain, among other things, a description of remedy selection alternatives, schedules of cleanup activities, and provisions for

dispute resolution. IAGs between EPA and each responsible federal department or agency, to which states may be signatories, address some or all of the phases of remedial activity (RI/FS, RD, RA, operation and maintenance) to be undertaken at a federal facility NPL site. IAGs formalize the schedule and procedures for submission and review of documents and include a time line for remedial activities in accordance with the requirements of CERCLA Section 120(e). They also must comply with the public involvement requirements of CERCLA Section 117.

Included in IAG provisions are mechanisms for resolving disputes between the signatories. EPA can also assess stipulated penalties for noncompliance with the terms of IAGs. The agreements are enforceable by the states, and citizens may seek to enforce them through civil suits. Penalties may be imposed by the courts against federal departments and agencies in successful suits brought by states or citizens for failure to comply with IAGs.

5.3 CERCLA Implementation at EPA Facilities

Of the 2,070 sites on the Federal Agency Hazardous Waste Compliance Docket at the end of FY97, 25 were EPA-owned or operated. Of these EPA-owned or operated sites, one was listed on the NPL. As required by CERCLA Section 120(e)(5), a report on EPA cleanup progress at active facilities is provided in Section 5.3.2.

5.3.1 Requirements of CERCLA Section 120(e)(5)

CERCLA Section 120(e)(5) requires an annual report to Congress from each federal department, agency, or instrumentality on its progress in implementing Superfund at its facilities. Specifically, the annual report to Congress is to include, but need not be limited to, the following items:

- Section 120(e)(5)(A): A report on the progress in reaching IAGs under CERCLA Section 120(e)(2);

- Section 120(e)(5)(B): The specific cost estimates and budgetary proposals involved in each IAG;
- Section 120(e)(5)(C): A brief summary of the public comments regarding each proposed IAG;
- Section 120(e)(5)(D): A description of the instances in which no agreement (IAG) was reached;
- Section 120(e)(5)(E): A progress report on conducting RI/FSs required by CERCLA Section 120(e)(1) at NPL sites;
- Section 120(e)(5)(F): A progress report on remedial activities at sites listed on the NPL; and
- Section 120(e)(5)(G): A progress report on response activities at facilities that are not listed on the NPL.

CERCLA also requires that the annual report contain a detailed description, by state, of the status of each facility subject to Section 120(e)(5). The status report must include a description of the hazards presented by each facility, plans and schedules for initiating and completing response actions, enforcement status (where applicable), and an explanation of any postponement or failure to complete response actions. EPA gives high priority to maintaining compliance with CERCLA requirements at its own facilities. To ensure concurrence with all environmental statutes, EPA uses its environmental compliance program to heighten regulatory awareness, identify potential compliance violations, and coordinate appropriate corrective action schedules at its laboratories and other research facilities.

5.3.2 Progress in Cleaning Up EPA Facilities Subject to Section 120 of CERCLA

At the end of FY97, the Federal Agency Hazardous Waste Compliance Docket listed 25 EPA-owned or operated facilities, including three that have been listed on the NPL (Electro Voice, Michigan; Ottati & Goss, New Hampshire; and Old Navy Dump/Manchester site, Washington). Two of the sites (the Brunswick Facility in Brunswick,

Georgia; and the Philadelphia Site in Philadelphia, Pennsylvania) listed previously and four of the sites (the Bay City CERT Site in Bay City, Michigan; the Electro Voice Site in Buchanan, Michigan; the Ottati & Goss Site in Kingston, New Hampshire; and Fine Petroleum in Norfolk, Virginia) listed in FY95 may have been listed on the docket in error. EPA is currently investigating those listings. EPA has evaluated and, as appropriate, undertaken response activities at the 25 EPA sites on the docket for which it is responsible, including the site on the NPL. As required by CERCLA Section 120(e)(5), Exhibit 5.3-1 provides the status, by state, of EPA-owned or operated sites and identifies the types of problems and progress of activities at each site. EPA facilities that have undergone significant response activities in FY97 are discussed in detail below. As required for EPA-owned or operated NPL sites, the information presented below for the Old Navy Dump/Manchester NPL site provides a report on progress in meeting CERCLA Section 120 requirements for reaching IAGs, conducting RI/FSs, and providing information on the status of remedial activities.

New England Regional Laboratory, Massachusetts

An underground oil storage tank was replaced at the New England Regional Laboratory in October 1993. During excavation, the cavity left by the old tank filled with water and developed a sheen. The laboratory was given a National Pollutant Discharge Elimination System (NPDES) permit exclusion and allowed to pump the water because tank inspection and water analysis indicated that no leaks were present and no groundwater contamination occurred. The laboratory continues to improve its environment, safety, and health program with regular audits by the Safety, Health, and Environmental Management Program (SHEMP).

Electro Voice, Michigan

The Electro Voice site has been occupied by several manufacturing companies since the 1920s. Demolitions refuse was deposited in an onsite natural Portion of Electro Voice, Inc.'s facilities have been built upon this fill. Electro Voice built two lagoons for the purpose of disposing electroplating waste in 1952. The lagoons were removed from service in

Exhibit 5.3-1

Status of EPA Facilities on the Federal Agency Hazardous Waste Compliance Docket¹

State	EPA Facility	Known or Suspected Problems	Project Status
MA	New England Regional Laboratory	No contamination	Pollution prevention plan continues
MI	Electro Voice	Electroplating waste contamination	Final remedial action report approved for OU1, workplan for OU2 submitted by PRP for EPA approval
NH	Ottati & Goss Superfund Site	Groundwater, soil, and sediment contamination	Thermal desorption chosen as alternative remedy to incineration for soil contamination
NJ	EPA Edison Facilities (formerly known as the Raritan Depot)	No contamination that poses a threat to the environment	Continuing investigations
VA	Fine Petroleum	Decaying containers of hazardous materials	Compliant filed by EPA for cost recovery, site investigation results in NFRAP
WA	Old Navy Dump/Manchester NPL Site (formerly known as the Region 10 Environmental Services Division Laboratory)	Soil and sediment contamination attributable to DoD ownership	Completion of Proposed Cleanup Plan, ROD signed

Source: Federal Agency Hazardous Waste Compliance Docket and the Office of Administration and Resource Management.

¹ This list does not include the following 17 EPA facilities where remedial activities have been completed, that have been conditionally exempt from PA requirements, or placed on the docket in error. These facilities include the Andrew W. Breidenback Environmental Research Ctr., Ann Arbor Motor Vehicle Lab., Brunswick Facility, Casmalia Resources, Center Hill Hazardous Waste Engineering Research Lab., Central Region Laboratory-MD, Combustion Research Facility-AR, Corvallis Environmental Research Lab., Houston Laboratory, Mobile Incinerator-Demmy Farm, National Enforcement Investigation Ctr., Philadelphia Site, Region 5 Environmental Services Division Lab., Region 7 Environmental Services Division Lab., Technology Center-NC, Testing and Evaluation Facility-OH, and Washington Headquarters.

1962 and a wastewater treatment facility was installed. In 1979, an industrial sewer link broke discharging liquid waste into the north lagoon. Electro Voice responded to this spill by treating and land depression from the 1920s to the early 1950s. removing the discharge and installing a holding tank to prevent similar incidents. The lagoons were closed and backfilled in 1980. In 1987, the EPA and Electro Voice entered into a Consent Order requiring the company to carry out a feasibility study of site contamination. The study was completed by the EPA in September of 1991. Final remedies were selected for the lagoon area, onsite groundwater, and dry well area soils (OU1). The remedial design was

completed in FY96 along with the excavation of contaminated soil and construction of a clay cap. In FY97, the soil ventilation and volatilization system continued to operate in the drywell area and the final remedial action report for OU1 was approved by EPA. The PRP developed a workplan for additional off-property investigation for OU2 to be approved by EPA. More field work is planned for the Fall of 1998.

Ottati & Goss Superfund Site, New Hampshire

The Ottati & Goss Superfund site is not considered a federal facility and may have been placed on the docket in error. The site was used by several companies and corporations for the purposes of drum reconditioning operations from 1959 until 1980. The site was then used by Ottati & Goss from March 1978 until July 1979 as a hazardous materials processing and storage facility. An RI/FS conducted in 1986 revealed that groundwater under the site was contaminated well above drinking water standards. The investigation also found a significant amount of soil and sediment contaminated above levels protective of human health and the environment. EPA conducted emergency removal actions at the site between December of 1980 and July of 1982. PRPs performed partial soil cleanup remediation at the site in 1989. The remedial design was completed in FY96 and a feasibility study was initiated. Alternatives to the incineration remedy selected in the ROD for treatment of VOC and PCB-contaminated soil were considered in FY97. An alternative evaluation concluded that thermal desorption would be more cost effective than incineration. The remedy will use thermal desorption for the remaining soil remediation.

EPA Edison Facilities, New Jersey

The EPA Edison Facilities site was formerly the Raritan Depot, which was owned by DoD and used for munitions testing and storage. In 1963, the General Services Administration (GSA) took possession of the property and, in 1988, transferred approximately 200 acres of the site to EPA. Although residual contamination from past DoD and GSA activities at the facility persists, EPA has not stored, released, or disposed of any hazardous substances on the property. A site inspection was conducted in FY91, following the discovery of a contaminated surface-water impoundment. The investigation resulted in the implementation of interim cleanup actions. Response activities have included spraying a rubble pile containing asbestos with a bituminous sealant; removing the liquid in the surface impoundment, excavating soil, installing a liner, and backfilling the impoundment with clean material; excavating and storing munitions; and

removing underground storage tanks. EPA expects that DoD will pursue additional cleanup work at the site.

Fine Petroleum, Virginia

The Fine Petroleum/Mariner HiTech site has been a paint and paint-related product recycling facility since the late 1960s. Approximately 13,000 containers with capacities ranging from 1 quart to 55 gallons were discovered in varying stages of decay in a field on the approximately 3 acre property. EPA performed a sampling assessment in July 1992 leading to a removal action in 1993 in which 26,330 gallons of paint and paint-related materials were removed. In May 1995, a fire occurred at the sole building on the property which housed numerous containers of hazardous substances. Following the fire, engineer evaluations indicated the warehouse to be structurally unsound. A runoff barrier was erected and air monitoring was conducted around the perimeter of the building's remains. A total of 365, 55-gallon drums of reportable quantity wastes, approximately 1,120 cubic yards of non-hazardous demolition debris, and 916 tons of non-hazardous, petroleum-impacted soil was removed during this 1995 event. The site began cost recovery stage in FY96. EPA performed a site investigation in FY97 and the site was given a status of no further remedial action planned (NFRAP). A complaint was filed with the Eastern District Court of Virginia by EPA on November 27, 1996 against Fine Petroleum Company, Inc. for recovery of response costs.

Old Navy Dump/Manchester NPL Site, Washington

EPA acquired this former Navy site from DoD in 1970 and used the land to construct an environmental testing laboratory in 1978. The property is also used for two other environmental laboratories run by the National Marine Fisheries Service and the Washington State Department of Ecology. The property adjacent to the laboratories had been used by the Navy to conduct firefighting training exercises, maintain metal anti-submarine nets, and serve as a Navy landfill. Investigations of the property history revealed that in the 1940s and 1950s, the Navy had used a lagoon on the property to dispose of metal debris and other waste from the

nearby Bremerton Naval Shipyard. Also, chemical residues from the Navy firefighting training school had been allowed to drain into the ground. In FY93, a preliminary assessment and site inspection of the property revealed the presence of hazardous substances in the soil, sediment, and surface-water run off. In January 1994, EPA proposed the site to the NPL, and in June 1994, EPA listed the site on the NPL.

Because the site is a former Navy site, the Defense Environmental Restoration Program for Formerly Used Defense Sites (FUDS) will provide funding for evaluating and correcting the hazardous conditions. Negotiations for an IAG for site cleanup were initiated in July 1994 and were ongoing as of the end of the fiscal year. Also during the year, the Seattle District of the U.S. Army Corps of Engineers (USACE) was authorized under the Department of Defense's Environmental Restoration Program for FUDS to perform an RI/FS of the Old Navy Dump/Manchester NPL Site (FUDS Site No. F10WA011900) and to prepare a proposed plan and ROD. The RI/FS was completed in December 1996. The Proposed Cleanup Plan, which was started in October 1994, was concluded in April 1997. The ROD for the site was signed in September 1997, by the USACE and EPA with the consent of the Washington State Department of Ecology and selected the same remedial actions recommended in the Proposed Cleanup Plan.

This page is intentionally left blank

Chapter 6

Resource Estimates

Section 301(h)(1)(G) of CERCLA requires EPA to estimate the resources needed by the federal government to complete Superfund implementation. The Agency interprets this requirement to be a report on the cost of completing cleanup at sites currently on the National Priorities List (NPL). Much of this work will occur after FY97.

Section 6.1 of this chapter includes annual information on Trust Fund resources needed by EPA and other federal departments and agencies through FY97, and on the allocation of the resources for FY97 and FY98. An overview of the method used to estimate the long-term costs associated with site cleanup is contained in Section 6.2, and an estimate of the long-term costs of cleaning up sites on the existing NPL is contained in Section 6.3. The estimate includes Trust Fund resource projections for EPA and other Superfund allocations to other federal departments and agencies for FY98 and beyond.

The long-term estimate provided in Section 6.3 is based primarily on the resources required to carry out the responsibilities and duties assigned to EPA and other federal departments and agencies by Executive Order 12580. To compute the estimate, EPA must make assumptions about the size and scope of the Superfund program, the nature and number of response actions, the level of participation by states and private parties, and the use of treatment technologies. For active NPL sites (those that have reached or passed the remedial investigation/feasibility study [RI/FS] planning stage), these assumptions relate to management of the workload already in the remedial pipeline and the costs of those actions. For NPL sites that have not yet entered the RI/FS planning stage, assumptions are

made about which activities will be necessary to clean up the sites and delete them from the NPL.

In developing the long-term resource estimate, EPA considered several sources of information:

- EPA Superfund budgets for FY93 through FY97, including budgets from other federal departments and agencies;
- The Federal Agency Hazardous Waste Compliance Docket developed under Section 120(c) of CERCLA and each federal department's and agency's annual report to Congress on federal facility cleanup as required under Section 120(e)(5) of CERCLA; and
- Various EPA information systems, primarily the CERCLA Information System (CERCLIS) and the Integrated Financial Management System.

Specifically, EPA has estimated resource needs for FY98 and beyond. This long-term effort has been coordinated with the development of the FY98 budget. In conjunction with the revised National Oil and Hazardous Substances Pollution Contingency Plan (NCP) and its policies affecting program direction and scope, EPA continues to refine the complete cost estimate for implementing CERCLA. The Agency is working to improve data quality, refine cost estimating methods, and collect additional information.

EPA's ability to project the federal resource requirement for CERCLA implementation improves each year as more experience is gained. Improved coordination with other federal departments and agencies and additional data on the implementation

of the federal facilities requirement of Section 120 also will increase the accuracy of future resource estimates.

6.1 Source and Application of Resources

Since the enactment of CERCLA in 1980, Congress has provided Superfund with \$17.6 billion in budget authority (FY81 through FY97). This estimate includes \$1.8 billion for FY81 through FY86 and \$15.9 billion for the post-SARA period, FY87 through FY97. EPA spent FY97 resources on the following activities:

- EPA Response Activities (65 percent): Response activities include site assessment, time-critical and non-time-critical removals, long-term cleanup actions, and program implementation activities. Also included is support provided by the Office of Water and the Office of Indoor Air and Radiation.
- Other Federal Agencies Response Activities (11.2 percent): Agencies included are: Department of Agriculture, Department of Commerce, Department of Defense, Department of Energy, Federal Emergency Management Agency, General Services Administration, Department of Health and Human Services, Agency for Toxic Substances and Disease Registry, National Institute of Environmental Health Sciences, Department of the Interior, Department of Justice, Department of Labor, National Aeronautics and Space Administration, Tennessee Valley Authority, Department of Transportation, and Department of Veterans Affairs.
- EPA's Enforcement Activities (12.3 percent): Enforcement activities include PRP negotiations, litigation, and settlements and cost recovery efforts.
- Management and Support (9 percent): This category includes program analysis provided by the Office of Program Planning and Evaluation; personnel, contracting and financial management services from the Office of Administration and Resources Management; legal services provided by the Office of General Counsel; and the audit function provided by the Office of the Inspector General.
- Research and Development (2.5 percent): Research and development resources are used for technical support and for developing and evaluating faster, better and less expensive methodologies and technologies in the areas of site characterization, risk assessment, monitoring, remedy selection and remedy design,

Exhibit 6.1-1
EPA Superfund Obligations
(in Millions)

Program Area	FY96 Operating Plan	FY97 Operating Plan
Response Activities (Total)		
EPA	\$1,202.7	\$1,063.1
Other Federal Agencies	1,054.7	906.2
	148.0	156.9
Enforcement Activities	141.1	171.2
Management and Support	125.6	124.9
Research and Development	20.5	35
Total Superfund	\$1,489.9	\$1,394.2

Source: Senior Management Report FY97.

construction and operations.

Exhibit 6.1-1 presents a snapshot of the allocation of Superfund resources for FY96 and FY97 within these categories. The snapshot data is from EPA's Senior Management Report.

6.1.1 Estimating the Scope of Cleanup

Site cleanup is the single largest category of Superfund expenditures and is expected to remain so in the future. To project EPA funding needs for cleanup activities, several key estimations were made, including:

- The projected number and average cost of studies, remedial designs (RDs), and remedial actions (RAs) undertaken;
- The extent and cost of removal activity; and
- The proportion of direct cleanup actions undertaken by PRPs.

6.1.2 PRP Contributions to the Cleanup Effort

The most significant way PRPs contribute to the hazardous substance cleanup effort is by conducting and financing response actions (whether voluntarily or under order). When PRPs finance site cleanup efforts, potential EPA Superfund obligations for those sites are dramatically reduced and the remaining principal cost is PRP oversight. EPA continues to develop and implement policies designed to encourage PRP cleanups.

In addition to response actions actually performed by PRPs, a portion of the costs of certain Fund-financed response actions will be recovered from PRPs through enforcement activities. Typically, there are delays of several years between expenditures from the Trust Fund and recovery of costs.

6.2 Resource Model Assumptions

Estimating the cost of cleaning up current NPL sites depends on a number of factors, many of which

will change as the program continues to mature. The main factors are:

- Changes in Superfund program policies and procedures because of the revised NCP, particularly the cleanup standards as required under Section 121 of CERCLA;
- Changes in the remedial program because of revisions to the Hazard Ranking System, as required under Section 105 of CERCLA;
- The long period required to identify, develop, select, and construct a remedy, and the need for scheduling flexibility to maximize the impact of enforcement activities;
- The level of state Superfund program activity;
- The level of PRP participation in the program;
- Changes in cleanup approaches, such as implementing more early actions in favor of remedial actions; and
- The nature of and demand for removal actions.

Based on these factors, EPA uses the Outyear Liability Model (OLM) to estimate the long-term resource needs of the Superfund program. The OLM provides meaningful long-range forecasts, has the flexibility to refine forecasts, and can be adjusted for a large number of program-related variables. These variables can be individually adjusted to reflect actual or anticipated changes in the program. The four primary cost categories used in the OLM to estimate the long-term resources required to clean up the existing NPL sites are:

- Active NPL sites;
- NPL sites where the remedial process has not yet begun;
- Non-site activities; and
- RA costs.

EPA's estimate of resources required to clean up the existing NPL sites is provided in Section 6.3. To

develop this estimate, the Agency has concentrated on remedial and removal activities. These activities are the major components of the Superfund program and account for the majority of Fund expenditures by the Agency.

6.2.1 Active NPL Sites

Remedial efforts are underway at most of the sites on the current NPL. Remedial plans are being developed for the remaining sites on the NPL, leaving 55 sites on the existing NPL pending study at the end of FY97.

Data on the active NPL sites are stored in CERCLIS and incorporated into the OLM to present the most accurate picture of planned activities. The OLM estimates ancillary activities for sites at which some level of planning or remediation activity is underway. Because most of the existing NPL sites are active, they constitute a large portion of the total liability estimate.

In addition to planned remedial activities, enforcement activities have a significant impact on the costs of addressing Superfund sites. All enforcement activities are estimated by the model according to past program experience and several standard sequences of activities, each representing a different enforcement approach. Enforcement-related variables within the model include costs, workyears, and the shift in remedial costs when Superfund assumes responsibility from, or passes responsibility to, a PRP. As with remedial activities, most enforcement costs and workyears are estimated.

6.2.2 Sites Yet to Begin the Remedial Process

The OLM uses the same general approach for sites where the remedial process has yet to begin. Cleaning up an NPL site involves a number of different activities occurring over time and in predictable arrangements. For sites where the remedial process has yet to begin, the OLM must first approximate the activities that will be involved when remediation of the sites begins. Approximations are made by applying several generic activity sequences to the number of sites being estimated. When the activities have been set,

cost and workyear pricing factors are applied to estimate the necessary resources. A consistent approach is used for all site activities, both remedial and enforcement. In the approach, tradeoffs such as avoiding cleanup costs but incurring PRP oversight costs are handled automatically as assumptions are adjusted.

The OLM includes a library of different activity sequences. Each sequence represents a typical site and involves different activities, durations, and schedules. In addition to the key activity starts discussed above, the OLM includes a number of other factors to control the mix of these activity sequences.

6.2.3 Non-Site Costs

Although non-site activities comprise a substantial portion of the budget, individually they are fairly small and stable. For these reasons, resource needs for these activities are estimated by applying annual growth factors to the levels included in the requested budget for the current year.

Aside from the number of sites requiring cleanup and the cost of individual cleanups, the assumption of managerial and financial responsibility for a site has the largest potential impact on the cost of the Superfund program. There are many factors involved in establishing who is responsible for a site (referred to as the site lead), including:

- Level of emphasis on enforcement;
- Willingness of states to assume financial responsibility; and
- Cost-sharing arrangements between Superfund and the states and between Superfund and the PRPs.

The model accommodates each of these factors with one or more variables, allowing the estimation of Superfund liabilities across a wide range of site-lead and cost-sharing scenarios. Site variables include

- Proportion of sites addressed by each lead category (Fund, PRP, state, and state enforcement);
 - Number of sites that are owned and/or operated by state or local governments; and
 - Number of sites that follow each of several enforcement paths.
- Choices among these variables generally affect both cost and duration of the program. Increases in PRP leads will ultimately result in lower Fund costs, but related litigation will substantially extend the amount of time required to reach deletion of a site from the NPL.
- Program support and other non-site elements are straightlined at the levels of the current request year budget (FY98 President's budget).
 - Approximately 50 percent of all new RI/FS starts will be Fund-financed.
 - For non-federal facility sites, PRPs will take the lead on 75 percent of the RAs. (Because oversight is significantly less expensive than cleanup, Fund costs drop dramatically when PRPs assume financial responsibility for more cleanups.)
 - No resource and programmatic assumptions for federal facility sites are included in the OLM. The OLM does not generate a resource estimate for the federal facility program.

6.3 Estimated Resources to Complete Cleanup

As illustrated in Exhibit 6.3-1, EPA's estimate of the total liability to complete cleanup of existing NPL sites is \$31.3 billion. This total includes the OLM long-term estimate of \$13.6 billion for FY98 and beyond. Major assumptions shaping the long-term estimate are as follows:

- Costing sites that are only currently proposed to or listed on the NPL.
- Removal activities at sites on the NPL remain at current levels.
- The RA cost factor is estimated at \$7.4 million per RA (in 1996 dollars) based on an analysis of RODs signed from 1992 through 1996.

Assumptions about the future reflect planning assumptions from the Superfund Program Management Manual and historical performance averages, both of which are revised periodically. EPA will continue to monitor developments that affect program costs. Changes will be incorporated into the model as they occur, improving depiction of future programmatic direction and refining previous analysis. OLM estimates will vary over time as a result, and subsequent editions of this Report will most likely contain revised estimates.

6.4 Estimated Resources for Other Executive Branch Departments and Agencies

The second element in fulfilling the requirements of Section 301(h)(1)(G) of CERCLA is providing an

Exhibit 6.3-1
Estimate of Total Trust Liability to Complete Cleanup
at Sites on the National Priorities List
(in Billions)

	Total Allocations
FY97 and Prior	\$17.7
FY98 and Beyond	\$13.6
Total	\$31.3

Source: Superfund Budget Documentation and Outyear Liability Model

estimation of the resources needed by other federal departments and agencies. The Superfund resource needs of the other Executive Branch departments and agencies are met through two sources: the Superfund Trust Fund and the individual federal department's or agency's budget.

Trust Fund monies are provided to other federal departments and agencies through two mechanisms:

- **Interagency Budgets:** EPA provides Trust Fund monies to other federal departments and agencies that support EPA's Superfund efforts. Transfers are accomplished through an interagency budget under Executive Order 12580.
- **Site-Specific Agreements:** EPA also provides money from the Trust Fund to other federal departments and agencies through site-specific agreements.

Federal departments and agencies also provide support to Superfund activities through CERCLA-Specific Funds and general funds of the department or agency. Exhibit 6.4-1 summarizes the other federal departments and agencies that receive Trust Fund monies. (Please see individual agency and department annual reports for specific site cleanup costs and descriptions.)

**Exhibit 6.4-1
List of Departments and Agencies
Receiving Trust Fund Monies**

Department of Agriculture
National Oceanic and Atmospheric Administration
Department of Defense
Department of Energy
Federal Emergency Management Agency
General Services Administration
Agency for Toxic Substances & Disease Registry
National Institute for Environmental Sciences
Department of Interior
Department of Justice
Occupational Safety and Health Administration
National Aeronautics and Space Administration
Tennessee Valley Authority
Department of Transportation
Department of Veterans Affairs

Chapter 7

Superfund Program Support Activities

7.1 Overview of Program Support Activities

The Superfund program's other support activities primarily focus on enhancing community involvement, disseminating public information, and promoting partnerships with states and Indian tribes. This section provides an overview of new and ongoing program support activities conducted by the Superfund program during FY97.

7.1.1 Community Involvement

Superfund's community involvement efforts demonstrate EPA's commitment to informing potentially affected citizens about Superfund sites and involving them in the cleanup process. EPA focuses on:

- Informing the public of planned or ongoing actions;
- Giving the public an opportunity to comment on and provide input for technical decisions; and
- Identifying and resolving conflicts.

The guideline for EPA's proactive community involvement effort is "early, often, and always." EPA is committed to beginning outreach activities early in the Superfund process, meeting with citizens on a regular basis, and always listening to citizens' concerns.

EPA's policy of enhancing community involvement is demonstrated by its continued efforts

to tailor activities to each community's needs and to identify effective approaches for reaching concerned citizens. Each community is unique and requires an individual communication strategy. EPA, while satisfying statutory and regulatory requirements, also promotes the following innovative involvement techniques:

- Sponsoring open houses and public availability sessions for local citizens to meet one-on-one with EPA Superfund site teams to discuss community concerns or site information;
- Promoting greater public understanding and encouraging public participation in site activities to convey information from EPA to local citizens using various media, such as public access television and public monitoring equipment; and
- Conducting introduction to Superfund workshops and video presentations to educate affected citizens about the Superfund cleanup process and opportunities for involvement in the process.

Under the Superfund Accelerated Cleanup Model (SACM) and Superfund Administrative Improvements, the Agency remains committed to promoting meaningful community involvement in decision-making during all phases of site cleanup. EPA views early and frequent community involvement as critical to the success of EPA's mission to protect human health and the environment. The Agency continued offering Technical Assistance Grants (TAGs) to communities to enable them to participate more fully in Superfund cleanup and decision making. Other efforts include

the establishment of Community Advisory Groups (CAGs).

Fiscal Year 1997 Highlights

During FY97, EPA continued to improve the vigorous community involvement efforts by emphasizing the importance of public participation through a variety of means. In particular, a workgroup convened to put guidance into practice that would reduce EPA oversight at sites where PRPs are deemed "cooperative and capable." EPA's involvement in a DoD/DOE public participation workgroup also strengthened community involvement at federal facilities through enhanced coordination and cooperation within the "federal family." EPA provided the opportunity for greater involvement in the Superfund process for stakeholders through the continued support of a Regional Ombudsmen program in all 10 EPA Regions. This program, based on an administrative reform, provides a point of contact for stakeholders to resolve issues when normal channels fail. Guidance documents on Prospective Purchaser Agreements (PPAs) were issued which help people in purchasing contaminated land for redevelopment while releasing them from future liability. Finally, EPA introduced a minority worker training program to the job training initiative to provide training to community residents and promote their employment with Superfund site cleanup contractors.

Enhanced Community Involvement Through Administrative Improvements

The enhancement of meaningful community involvement is one of the areas where EPA is changing Superfund through the administrative improvements. Efforts focused on identifying ways to increase community involvement in the Superfund program, enhance outreach between EPA and communities, and ensure environmental justice by addressing concerns of minority and low-income communities.

Technical Outreach Services for Communities

The Agency continued support for the technical outreach program through initiation of an evaluation

effort to assess the three year-old Technical Outreach Services for Communities (TOSC) program. TOSC expands EPA's tools for community outreach by providing an alternative, independent source of technical information. EPA's Office of Research and Development's Office of Exploratory Research provides a national network of five Hazardous Substance Research Centers (HSRCs). Authorized by SARA Title III, Section 311(d), the HSRCs are supported by a network of 23 universities nationwide. Each HSRC supports two EPA Regions and provides technology transfer and training. The HSRCs also provide services that are flexible and tailored to each community's needs. For example, the technical expert at the HSRC may review site-related documents, attend public meetings, explain technical process information, or provide an independent assessment of site activities.

Community Advisory Groups

CAGs are committees, task forces, or boards made up of residents affected by a hazardous waste site. CAGs enhance public participation in the cleanup process by providing a public forum where community representatives can discuss their diverse interests, needs, and concerns about the cleanup. Strong community initiative in forming and operating CAGs, as well as technical expertise by CAG members are important factors for successful CAGs. During FY97, the Agency continued to support the CAG program, providing information and other tools to assist the communities in establishing CAGs and actively participating in the decision-making process.

Technical Assistance Grants Under CERCLA Section 117(e)

The TAG Program, authorized by CERCLA Section 117(e), as amended by SARA, provides eligible communities affected by NPL sites with grant funds to hire independent technical advisors. Only communities affected by sites listed on the NPL or sites proposed to the NPL with response actions underway are eligible for such funds. By allowing communities to hire independent advisors, TAGs enable communities to become more knowledgeable about the technical and scientific aspects of a Superfund sites. Communities are able to participate in the decision making surrounding their sites using

their increased understanding of site-specific cleanup strategies. Because TAG regulations require recipients to share their information with the entire affected community, the broader community benefits as well. Initial TAG awards are for \$50,000 but additional funds are available for more complex sites.

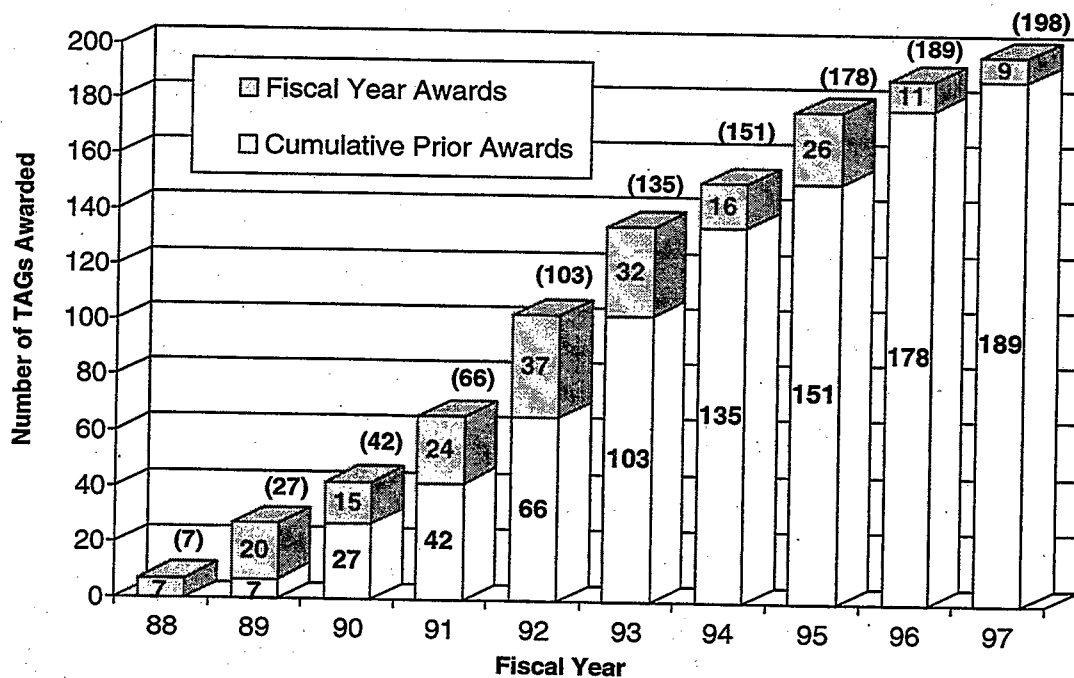
EPA continues to improve the TAG Program by establishing efficient lines of communication between potential TAG recipients and the Agency, including communication between the Regional offices and Headquarters. EPA sponsored a national conference to bring together regional TAG coordinators for a discussion on TAG issues as a key initiative to foster this regional/headquarter communication.

EPA's revision of the TAG rule throughout FY97 also played an important component in further streamlining and improving the program. Revisions proposed for the TAG rule included:

- Reduction in reporting requirements for TAG recipients;
- Elimination of the cap on administrative expenses; and
- Inclusion of interpretation of congressional intent regarding the "not more than one grant may be made ...with respect to a single facility" language, to allow multiple, non-concurrent grant recipients.

As illustrated in Exhibit 7.1-1, since the TAG program began in FY88, EPA has awarded 198 TAGs, which are worth more than \$13 million to support community involvement in Superfund cleanup. This total includes 9 TAGs awarded during FY97. Because of the benefits of the TAGs, many TAG recipients choose not to close-out their grant award as they mature, but rather request additional funds through a waiver or deviation. EPA has awarded almost \$3 million additional grant dollars through waivers and deviations.

Exhibit 7.1-1
Number of Technical Assistance Grants Awarded
from Fiscal Year 1988 Through Fiscal Year 1997



Source: Office of Emergency and Remedial Response/Hazardous Site Control Division.

7.1.2 Public Information

A Coordinated Approach to Public Information

The Agency's public information outreach program is built on a system of information coordination and management. Under this program, EPA is committed to providing quick public access to high-quality documents.

All Superfund documents available to the public are listed in the *Catalog of Superfund Program Information Products* and its regular update bulletins. Copies of the catalog and updates are available from the Superfund Document Center or from the Department of Commerce's National Technical Information Service (NTIS). Electronic access to the catalog and updates is available through Agency internal electronic bulletin boards or through the NTIS FEDWORLD gateway to the Internet system which is advertised nationwide to the general public.

During FY97, EPA continued to participate in the full implementation of the EPA-NTIS Superfund partnership, a comprehensive interagency effort to provide maximum public access to Superfund documents. Through this partnership, the Agency and NTIS conduct an outreach and marketing program to inform the public about the availability of Superfund documents from NTIS. This partnership effort has provided the public with rapid delivery of Superfund documents and has conserved EPA resources.

The public can also access information about Superfund through other information sources, such as the Superfund Docket and the Resource Conservation and Recovery Act (RCRA)/Superfund Hotline. Further information on public information services is provided below.

The National Technical Information Service

The Department of Commerce's NTIS serves as a permanent archive and general source of federal publications, including Superfund documents. Before the EPA-NTIS partnership, EPA had fulfilled requests for more than two million documents free of

charge. Due to resource constraints, however, free document distribution was no longer possible. To fulfill its commitment to ensure that Superfund documents are available to the public, EPA has worked to maximize public access to and promote the availability of Superfund documents through NTIS.

The Agency's joint effort with NTIS provides the public with ready access to the entire Superfund collection. Using NTIS employees provided considerable savings to the government and facilitates access to the many production services housed at the NTIS headquarters in Springfield, Virginia.

NTIS also maintains a Superfund Order Desk where users may purchase single copies of documents or customized subscriptions for categories of documents pertinent to their needs. Prepublication documents are available at the Superfund Order Desk prior to being formally printed and distributed.

The Superfund Docket

The Superfund Docket provides public access to the materials that support proposed and final regulations. In compliance with the Freedom of Information Act, the public is allowed access to docket materials following approval of the material by the Office of General Counsel and announcement of the proposed or final regulation in the *Federal Register*.

Other Information Sources

The RCRA/Superfund Hotline, managed by EPA Headquarters, provides information to the public and EPA personnel concerning hazardous waste regulations and policies. The hotline is a comprehensive source of general information about ongoing Superfund program developments.

EPA also maintains the Hazardous Waste Superfund Collection at EPA Headquarters and Regional libraries. The collection contains documents ranging from records of decision to commercially produced books on hazardous waste and the Superfund program.

7.1.3 EPA's Partnership with States and Indian Tribes

EPA continues to promote and maintain its partnership with states, federally recognized Indian tribes, commonwealths, territories, and political subdivisions in the Superfund cleanup process. (States, commonwealths, and territories will be referred to as states for the purposes of this Report.) Subpart F of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) provides mechanisms for ensuring meaningful state and tribal involvement in implementing Superfund response activities, as required by Sections 104 and 121(f) of CERCLA. Subpart O of 40 CFR Part 35 provides additional detail on requirements for transferring funds and responsibilities to states and Indian tribes to undertake response actions, as well as on building their overall program capabilities.

The following sections describe performance partnership grants response agreements and core program cooperative agreements (CPCAs) between EPA and states, tribes, or political subdivisions because these agreements serve as a tool to enable states to participate in the Superfund cleanup process. In addition, FY97 highlights of EPA efforts to promote involvement of states and Indian tribes in Superfund response activities are provided.

Performance partnership grants (PPGs) allow states and tribes to consolidate funds from their categorical grants into one or more PPGs. Each PPG requires a National Environmental Performance Partnership System (NEPPS) agreement which describes goals and objectives and other items related to program accomplishment. Although PPGs cannot specifically designate Superfund resources, some states use some of their PPG money to fund Superfund programs.

Response Agreements and Core Program Cooperative Agreements

Response agreements provide states, tribes, and political subdivisions with the opportunity to participate in response activities at sites under their jurisdiction. Superfund CPCAs assist states and tribes in developing their overall Superfund response

capabilities. This section discusses each type of agreement in detail.

Response Agreements: Response agreements fall into two categories: Superfund state contract (SSCs) and cooperative agreements (CAs). Both serve as the contractual tools through which states, tribes, and political subdivisions work with EPA to conduct or support Superfund response activities.

SSCs and remedial action CAs document assurances required from a state, tribe, or political subdivision by CERCLA Section 104. Before EPA provides funding to conduct a remedial action (RA) in a state (i.e., a Fund-financed RA), for example, the state must provide the Agency with the following assurances, required by CERCLA Section 104 and formalized in the SSC or remedial action CA:

- Provide for 100 percent of RA operation and maintenance;
- Provide 10 percent of the RA cost;
- Ensure the availability of a 20-year capacity for the disposal or treatment of hazardous wastes;
- Provide for off-site disposal, if necessary; and
- Acquire or accept transfer of interest in property, if necessary.

Assurances are not required for Fund-financed response actions that are not RAs. Where a state or a political subdivision was an operator at the facility at the time when hazardous substances were disposed, the state must provide at least 50 percent of the cost of the removal, remedial planning, and RA in cases where a CERCLA-funded RA is conducted. Tribes are exempt from providing most of the CERCLA assurances, but may need to provide the assurance to acquire or accept interest in property in certain cases. The following sections describe SSCs and CAs.

Superfund State Contracts: State or tribe must enter into an SSC with the Agency when EPA conducts (i.e., is the lead for) a Fund-financed RA. The SSC, which must be signed before EPA conducts the RA, documents the CERCLA

assurances that have been made with a state or Indian tribe. The SSC also includes provisions detailing the cost-share required and specifying the process for the collection of cost-share payments.

A three-party SSC among the state/political subdivision/EPA is required when a political subdivision assumes the lead for remedial activities. The three-party SSC parties include EPA, the state, and the political subdivision. The SSC must be in place before EPA can transfer funds, through a remedial CA, to the political subdivision. Also, although the political subdivision will conduct the remedial activity, the state still is responsible for providing the required CERCLA assurances in the SSC.

Cooperative Agreements: Superfund CAs are the vehicle through which EPA provides funds to states, tribes, and political subdivisions to ensure their meaningful involvement in implementing Superfund. The following five types of response CAs, described in 40 CFR Part 35 Subpart O, are available for site-specific response activities:

- Pre-remedial CAs are awarded to states, tribes, and political subdivisions to conduct pre-remedial activities, including preliminary assessments (PAs) and Site Investigations (SIs).
- Remedial CAs allow states, tribes, or political subdivisions to receive Superfund money for taking the lead in remedial planning, remedial design (RD), and RAs at specified sites within their jurisdiction. When a state or tribe takes the lead for an RA, the remedial CA documents the state or tribe's CERCLA Section 104 assurances, and an SSC is not required. When a political subdivision takes the lead for a remedial activity, a three-way SSC must be signed. This three-way SSC documents the state's CERCLA assurances.
- Removal CAs are awarded to states, tribes, or political subdivisions that lead a non-time-critical removal action (NTCR). Such actions are taken when a planning period of more than six months is available. Cost-share payment is not required (unless the facility was operated by the state or political subdivision, as described

above), but EPA encourages cost-sharing for removal actions that cost more than \$2 million.

- Enforcement CA funds may be used by a state, tribe, or political subdivision to conduct potentially responsible party (PRP) searches, issue notice letters for negotiation activities, implement administrative and judicial enforcement actions, or oversee PRP response actions. Subpart O contains specific enforcement-related criteria that an applicant must meet to be eligible for an enforcement CA. Enforcement CAs support enforcement under state law when PRPs are unwilling to pay oversight costs.
- Support agency cooperative agreements (SACAs) allow states, tribes, and political subdivisions that do not have lead-agency responsibility to actively participate in response activities at sites under their jurisdiction. SACAs may assist the state, tribe, or political subdivision in facilitating investigations, response selection, and implementation through the sharing of information and expertise. They may not be used, however, to document CERCLA assurances.

In addition to describing response CAs, 40 CFR Part 35 Subpart O also specifies financial, administrative, and other requirements with which a state, tribe, or political subdivision must comply in order to receive funds. A multi-site cooperative agreement, which has the same requirements as the other types of agreements, is a multi-purpose agreement that has been used to consolidate funding for various response activities at different sites.

Core Program Cooperative Agreements

Congress has expressed the intent to include CERCLA funding to states and tribes for certain basic, or core, activities that are not attributable to a specific site but are necessary to implement CERCLA response capabilities. The legislative history of CERCLA Section 104(d), as amended, demonstrates this intent to support the development of Superfund infrastructure. Through CPCAs, EPA offers states and tribes the opportunity to develop comprehensive, self-sufficient Superfund programs.

CPCAs have a single budget and scope of work designed to enhance state or tribal program activities. Approval of the budget request and scope of work is dependent on the developmental needs of a state or tribal program, demonstrated progress in meeting previous core objectives, and funds availability. States are required to provide a 10 percent cost-share for Core Program awards.

The Core Program is intended to lay the groundwork for the implementation of an integrated EPA/state/tribal approach for meeting Superfund goals. EPA typically budgets and annually distributes \$20 million to \$22 million among the ten Regional offices for CPCAs. Regions also may provide additional funding if resources are available.

State and Tribal Highlights

EPA continued to build the state/EPA partnership through outreach initiatives with states. These initiatives included meetings with states on special topics of interest, such as soil screening levels, integrated assessments, and communications between EPA and state removal managers.

Under the administrative improvements initiative to enhance states' role in cleanup, the Agency continued developing the Superfund state deferral program. Under this program, EPA may defer consideration of certain sites for listing on the NPL, while interested states or tribes compel and oversee response actions conducted and funded by PRPs. Thirty sites in 11 states are serving as pilots for the deferral program.

In FY97, the Superfund program was actively involved in addressing hazardous waste problems on Native American lands and in assisting tribes to assume regulatory and program management responsibilities. Tribes received funding, technical assistance, and training for Superfund implementation through SSCs, CAs, SACAs, CPCAs, and other agreements.

The development and enhancement of voluntary cleanup programs is being promoted by EPA in conjunction with states and tribes. Voluntary clean-

up programs, which fall under Core Program CAs, encourage private parties to undertake protective cleanups of contaminated sites. During FY97, EPA awarded 43 States or Tribes approximately 9.4 million to help either develop State voluntary cleanup programs or enhance existing voluntary cleanup programs.

7.2 Minority Firm Contracting

Section 105(f) of CERCLA (P.L. 99-499) requires EPA to annually consider minority contractors for procurement opportunities when awarding contracts for Superfund work. EPA contracts include direct procurement awarded by the Agency; indirect procurement that result from Superfund financial assistance awards, i.e., contracts and subcontracts emanating from cooperative agreements awarded to the states and contracts from interagency agreements with other federal agencies.

This section of the FY97 report has been prepared by EPA's Office of Small and Disadvantaged Business Utilization (OSDBU), which has the responsibility to ensure that the Agency complies with Section 105(f) of CERCLA. The requirements of the Administrative Provisions of P.L. 102-389 directs the Agency to establish an 8 percent goal for disadvantaged businesses. All programs funded by EPA are included in this requirement. This report reflects EPA's accomplishments.

EPA achieved its goal of reaching a 7.0 percent rate for its combined direct contracting and indirect contracting efforts with minority and other disadvantaged businesses during FY97. Additionally, EPA's Superfund program transfers funds to other federal agencies by means of interagency agreements (IAGs). In the conduct of the transfer of funds, contracts and subcontracts were awarded to minority firms.

During FY97, contracts worth \$51,538,071 were awarded to minority contractors to perform Superfund work. As Exhibit 7.2-1 illustrates, EPA's cooperative agreements with states resulted in \$871,604 to minority contractors. Other federal

Exhibit 7.2-1
Minority Contract Utilization During Fiscal Year 1997

Type of Activity	Total Dollars Obligated	Minority Contractor Participation ¹	Percentage of Total
Direct Procurement	\$510,897,183	\$11,607,588	2.3
Cooperative Agreements	33,714,294	871,604	2.6
Interagency Agreements ²	195,946,471	39,058,879	19.9
Total	\$740,557,948	\$51,538,071	7.0

¹This does not include women's business enterprise participation data and there is no way to identify if such entities are owned and controlled by minority women.

²This is the total dollar amount awarded. There is no way of extracting the subagreement dollars available for minority contractor participation from the computer data system.

Source: U.S. EPA Office of Small and Disadvantaged Business Utilization (OSDBU).

agencies awarded \$39,058,879 in contracts, subcontracts and purchase orders to minority firms, with funds transferred from the Superfund program via IAGs. Under the Agency's direct federal agencies awarded \$39,058,879 in contracts, subcontracts and purchase orders to minority firms, with funds transferred from the Superfund program via IAGs. Under the Agency's direct procurement program minority business enterprises received \$11,607,588 in Superfund contracts through various contracting methods, i.e., Small Business Administration (SBA) 8(a) awards, direct minority awards and subcontracts.

Minority firms provide three types of services to the Superfund program: professional, field support

and construction, Exhibit 7.2-2 illustrates examples of tasks performed under each category.

7.2.1 EPA Efforts to Identify Qualified Minority Firms

OSDBU conducted a number of outreach activities during FY97, to increase the number of qualified minority firms that would be available to receive contract and subcontract opportunities through the Superfund program. Some of the activities include:

- The National Association of Minority Contractors and OSDBU conducted four training sessions designed to help culturally

Exhibit 7.2-2
Services Provided by Minority Contractors

Professional	Field Support	Construction
Health Assessments	Drilling/Well Installation	Site Cleanup
Community Relations	Laboratory Analysis	Excavations
Feasibility Studies		Waste Hauling & Drilling
Data Management Security		Security
Geophysical Surveys		Site Support
Remedial Investigations		Facilities
Expert Witness		
Editing		
Air Quality Monitoring		

Source: U.S. EPA Office of Small and Disadvantaged Business Utilization (OSDBU).

disadvantaged contractors become more successful in winning Superfund direct prime contract and subcontract awards. Sixty-nine attendees participated in the training sessions held in Boston, Massachusetts; Charleston, South Carolina; Seattle, Washington and San Diego, California.

- EPA in cooperation with the Colorado District SBA Office and the Genesis Environmental Team (GET) conducted several seminars to provide information on Superfund contracting and subcontracting opportunities in the Colorado region, and to increase minority Superfund contracting participation. Over 150 minority and women-owned firms attended these sessions. In addition to these seminars, directories were distributed among prime contractors and governmental agencies to assist them in identifying qualified minority firms.
- EPA became a planning participant in late FY97 to assist in the preparation of a 1998 National Reservation Conference to be held in Denver, Colorado. The Conference will be focused toward Native American businesses and will provide information on procurement opportunities, including Superfund.

7.2.2 Efforts to Encourage Other Federal Agencies and Departments to Use Minority Contractors

OSDBU, continues to work with other federal agencies to enhance the involvement of minority contractors. Numerous conferences, workshops, and seminars were held by other federal agencies to encourage minority business participation in the Superfund program. OSDBU has ensured that a special condition is included in each interagency agreement between EPA and any other agency or department receiving Superfund monies. The special condition ensures that agencies or departments receiving Superfund money are aware of the requirements of CERCLA Section 105(f) and P.L. 102-389. One of these special conditions requires that departments or agencies undertaking Superfund work submit an annual report to EPA on minority contractor utilization.

This page intentionally left blank

Appendix A

Status of Remedial Investigations, Feasibility Studies, and Remedial Actions at Sites on the National Priorities List in Progress on September 30, 1997

Appendix A satisfies the combined statutory requirements of CERCLA Sections 301(h)(1)(B) and (F). Accordingly, this appendix reports the status and estimated completion date of all remedial investigation/feasibility study (RI/FS) and remedial action (RA) Title I projects in progress at the end of FY97. This appendix also provides notice of RI/FSs and RAs that EPA presently believes will not meet its previously published schedule for completion, and includes new estimated dates of completion, as required by Section 301(h)(1)(C). These dates were previously published in Appendix A of *Progress Toward Implementing Superfund: Fiscal Year 1996*. In addition to meeting these statutory requirements, this appendix lists new remedial projects that were begun in and were in process at the end of FY97. Listed activities may include remedial projects at several operable units on a single site, as well as first and subsequent activities at a single operable unit.

Information in the appendix is organized under the following headings:

- **RG**— EPA region in which the site is located.
- **ST** — State in which the site is located.
- **Site Name** — Name of the site, as listed on the National Priorities List (NPL).
- **Location** — Location of the site, as listed on the NPL.
- **Operable Unit** — Operable unit at which the corresponding remedial activity is occurring; a single site may include more than one operable unit.
- **Activity** — Type of project in progress on September 30, 1997.
- **Lead** — The entity leading the activity, as follows:

EP: Fund-financed with EPA employees performing the project, not contractors;

F: Fund-financed and federal-lead by the Superfund remedial program;

FE: EPA enforcement program-lead;

FF: Federal facility-lead;

MR: Mixed funding; monies from both the Fund and potentially responsible parties (PRPs);

PRP: PRP-financed and conducted;

PS: PRP-financed work performed by the PRP under a state order (may include federal financing or federal oversight under an enforcement document);

S: State-lead and Fund-financed; and

SE: State enforcement-lead (may include federal financing).

Remaining terms used in the CERCLA Information System (CERCLIS) database, **O** (other), **SN** (state-lead and financed, no Fund money), and **SR** (state-ordered PRP response activities), are excluded from this status report because they do not include federal financing.

For some activities, the indicated lead is followed by an asterisk (*), which indicates that funding for the activity was taken over by the indicated lead during FY97.

- **Funding Start** – The date on which funds were allocated for the activity.
- **Previous Completion Schedule** – For projects ongoing at the end of FY96 that continued into FY97, the quarter and fiscal year of the planned completion date for the activity. This column is blank for projects that were begun in FY97.
- **Present Completion Schedule** – The quarter and fiscal year of the planned completion of the activity.

An initial completion schedule is required to be put into CERCLIS when an activity is entered. Plans at this point are based on little site knowledge. As work continues, schedules are adjusted to reflect actual site conditions.

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE		PRESENT COMPLETION SCHEDULE	
	GU	Anderson Air Force Base	YIGO	01	RI/FS	FF	03/30/93	3	2001	3	2001
				02	RI/FS	FF	06/29/93	3	2000	3	2000
				03	RI/FS	FF	06/29/93	2	1998	4	1998
				04	RI/FS	FF	06/29/93	3	2000	3	2000
				05	RI/FS	FF	06/29/93	3	2002	3	2002
				06	RI/FS	FF	06/29/93	3	2003	3	2003
1	CT	Barkhamsted-New Hartford Landfill	Barkhamsted	01	RI/FS	PRP	09/30/91	4	1997	2	1999
1	CT	Beacon Heights Landfill	Beacon Falls	02	RA	PRP	03/31/92	4	1997	4	1998
1	CT	Durham Meadows	Durham	01	RI/FS	MR	06/30/97			1	2000
1	CT	Laurel Park Inc. (once listed as Laurel Park Landfill)	Naugatuck Borough	02	RA	PRP	07/29/96	3	1999	4	1998
1	CT	New London Submarine Base	New London	04	RI/FS	FF	09/27/94	3	1999	2	2000
				05	RI/FS	FF	09/27/94	4	1998	4	1999
				07	RI/FS	FF	11/05/94			1	2000
				08	RI/FS	FF	11/05/94			2	2001
1	CT	Raymark Industries, Inc.	Stratford	01	RA	F	05/15/96			4	1998
				02	RI/FS	F	09/04/96	3	1998	1	2000
				03	RI/FS	F	09/20/93	4	1997	1	2000
1	CT	Solvents Recovery Service of New England	Southington	01	RA	PRP	05/21/92			3	1993
				02	RA	PRP	10/29/86			4	1999
1	MA	Atlas Tack Corp.	Fairhaven	01	RI/FS	F	09/18/89	4	1997	2	1999
1	MA	Baird & McGuire	Holbrook	02	RA	F	06/26/90	2	1998	4	1999
				03	RA	F	09/30/91	4	1995	3	1999
				04	RA	F	04/20/95	4	1995	4	2000
1	MA	Charles-George Reclamation Trust Landfill	Tyngsborough	03	RA	F	09/28/90	2	1998	4	1999
				04	RA	F	09/28/96	1	1998	3	1999

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE	PRESENT COMPLETION SCHEDULE
1	MA	Fort Devens	Fort Devens	01	RA	FF	06/13/96	2 1998	2 2008
				02	RI/FS	FF	05/13/91	2 1997	2 1999
				06	RA	FF	06/18/97		2 2000
				07	RI/FS	FF	05/24/94	4 1998	4 1998
				08	RI/FS	FF	03/25/96	3 1998	3 1999
				09	RI/FS	FF	07/06/95	4 1998	2 1999
				11	RI/FS	FF	10/15/95	4 1999	4 2000
1	MA	Groveland Wells	Groveland	01	RA	F	09/22/97		4 2000
				02	RA	F	11/02/92	1 1998	4 2000
1	MA	Hanscom Field/Hanscom Air Force Base	Bedford	01	RI/FS	FF	03/14/97		4 2000
				03	RI/FS	FF	06/12/97		4 1999
1	MA	Hocomonco Pond	Westborough	02	RA	PRP	06/02/93	3 1997	4 1999
1	MA	Industri-Plex (Mark Philips Trust)	Woburn	01	RA	PRP	05/18/92	4 1997	2 2000
				02	RI/FS	F	05/30/90		4 2000
				02	RI	PRP	12/08/89	1 1998	1 1998
1	MA	Iron Horse Park	Billerica	01	RA	PRP	07/15/91	4 1998	4 1999
				03	RI/FS	F	01/31/90	2 1998	3 2000
1	MA	Materials Technology Laboratory (USARMY)	Watertown	01	RA	FF	11/20/96		4 1998
				02	RI/FS	FF	05/30/97		1 2000
1	MA	Natick Laboratory Army Research,D&E Cntr	Natick	01	RI/FS	FF	06/26/97		1 1999
1	MA	Naval Weapons Industrial Reserve Plant	Bedford	01	RI/FS	FF	10/21/94		4 2000
				02	RI/FS	FF	10/21/94		4 2000
1	MA	New Bedford Site	New Bedford	02	RA	F	09/10/91		4 1994
				02	RA	F	12/20/91		2 2000
1	MA	Norwood PCBs	Norwood	01	RA	F*	04/18/94		4 1998
				01	RA	PRP*	04/30/97		1 1999

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE		PRESENT COMPLETION SCHEDULE	
1	MA	Nyanza Chemical Waste Dump	Ashland	04	RI/FS	F	02/18/93	2	1998	1	2000
1	MA	Otis Air National Guard Base/Camp Edwards	Falmouth	03	RI/FS	FF	07/17/91	1	1997	4	1998
				05	RI/FS	FF	07/17/91	3	1997	4	1998
				06	RI/FS	FF	07/17/91	1	1997	3	1999
				08	RI/FS	FF	07/17/91	2	1998	4	1999
				09	RI/FS	FF	02/01/93	3	1998	4	2001
				10	RI/FS	FF	03/02/93	4	1998	1	2000
				11	RI/FS	FF	11/30/91			1	2000
1	MA	PSC Resources	Palmer	01	RA	PRP	03/05/97			1	2009
1	MA	Re-Solve, Inc.	Dartmouth	03	RA	MR	07/10/96	1	2000	1	2000
1	MA	Salem Acres	Salem	01	RA	PRP	03/28/96			4	1999
1	MA	Shpack Landfill	Norton/Attleboro	01	RI/FS	PRP	09/24/90	3	1998	1	2000
1	MA	Silresim Chemical Corp.	Lowell	01	RA	F	03/08/94			4	1996
1	MA	South Weymouth Naval Air Station	Weymouth	01	RI/FS	FF	01/17/97			4	2000
1	MA	Sullivan's Ledge	New Bedford	01	RA	PRP	06/09/97			1	2001
1	MA	Wells G&H	Woburn	01	RA	PRP	09/30/92	4	2000	4	2002
				02	RI/FS	PRP	09/28/90	2	1998	1	2000
				03	RI/FS	F	09/28/90	2	1998	1	2000
1	ME	Brunswick Naval Air Station	Brunswick	07	RI/FS	FF	06/22/90	2	1998	4	1998
1	ME	Eastern Surplus	Meddybemps	01	RI/FS	F	08/27/96	1	2001	4	1999
				01	FS	F	07/15/97			3	1999
1	ME	Loring Air Force Base	Limestone	02	RA	FF	07/25/95	4	1997	1	2001
				05	RI/FS	FF*	05/09/91	3	1998	4	1999
				08	RI/FS	FF	01/30/91	1	1999	1	1999
				10	RI/FS	FF	01/30/91	3	1999	4	1998
				12	RI/FS	FF	01/16/96	4	1998	2	1999
				13	RA	FF	07/08/97			1	2001
				15	RI/FS	FF	03/16/95	4	1996	4	1996

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE	PRESENT COMPLETION SCHEDULE
1	ME	O'Connor Co.	Augusta	01 03	RA RA	PRP PRP	07/30/96 10/24/96	1 1998	1 1999 1 1999
1	ME	Portsmouth Naval Shipyard	Kittery	01 02 04	RI/FS RI/FS RI/FS	FF FF FF	04/01/97 02/10/97 06/04/97		2 2001 3 1999 1 2001
1	ME	Saco Municipal Landfill	Saco	01	RI/FS	PRP	09/26/95	4 1998	2 1999
1	ME	Saco Tannery Waste Pits	Saco	01	RA	F	02/18/93		4 1998
1	ME	Union Chemical Co., Inc.	South Hope	01	RA	PRP	04/05/95	4 1997	4 2000
1	ME	Winthrop Landfill	Winthrop	03	RA	PRP	04/28/94	4 1997	4 1998
1	NH	Beede Waste Oil	Plaistow	01	RI/FS	S	09/27/96		4 1999
1	NH	Coakley Landfill	North Hampton	01	RA	PRP	01/25/96	4 1998	1 2000
1	NH	Fletcher's Paint Works	Milford	01	RI/FS	F	07/29/90	3 1997	4 1998
1	NH	Mottolo Pig Farm	Raymond	01 01	RA RA	F F	09/10/92 06/24/93		3 2001 3 2001
1	NH	New Hampshire Plating Co.	Merrimack	01	RI/FS	F	07/14/92	2 1997	4 1998
1	NH	Ottati & Goss)	Kingston	04 04	RA FS	F F	02/26/93 09/18/96	1 1998	4 1994 1 1999
1	NH	Pease Air Force Base	Portsmouth/Newington	04 07 10 11	RA RA RA RI/FS	FF FF FF FF	12/17/96 12/30/96 12/30/96 01/02/91		1 1999 4 1998 1 1999 4 1997
1	NH	Savage Municipal Water Supply	Milford	01	RA	S	03/25/97		2 2001

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE		PRESENT COMPLETION SCHEDULE	
1	NH	Tibbets Road	Barrington	01	RA	PRP	07/26/96	4	2000	4	2000
1	NH	Tinkham Garage	Londonderry	02	RA	PRP	02/07/94	3	1998	1	2006
1	RI	Central Landfill	Johnston	02	RI/FS	PRP	08/25/94	3	1997	2	1999
1	RI	Davisville Naval Construction Batt Center	North Kingstown	04 07	RI/FS RI/FS	FF FF	03/23/92 04/21/97	4	1997	4 2	1998 2000
1	RI	Newport Naval Education/Training Center	Newport	03 04 05	RI/FS RI/FS RI/FS	FF FF FF	03/23/92 03/23/92 02/12/96	3 4	2000 1997	2 2 3	2002 2000 2000
1	RI	Rose Hill Regional Landfill	South Kingstown	01	RI/FS	F	09/30/90	3	1997	2	1999
1	VT	Bennington Municipal Sanitary Landfill	Bennington	01	RI/FS	PRP	06/28/91	1	1998	4	1998
1	VT	Burgess Brothers Landfill	Woodford	01	RI/FS	PRP	08/27/91	4	1997	4	1998
2	NJ	A. O. Polymer	Sparta Township	02	RA	PRP	07/08/97			2	1999
2	NJ	American Cyanamid Co.	Bound Brook	01 02 04 05	RA RA RI/FS RI/FS	PS PS SE SE	06/01/94 04/24/97 05/28/88 05/28/88			4 4 1 1	1999 2000 2000 2001
2	NJ	Asbestos Dump	Millington	01 03	RA RI/FS	F FF	09/30/97 01/24/91			1 2	2000 1996
2	NJ	Burnt Fly Bog	Marlboro Township	03	RI/FS	S	09/30/88	2	1998	4	1998
2	NJ	CPS/Madison Industries	Old Bridge Township	01	RI/FS	PS	01/15/83			1	2000
2	NJ	Caldwell Trucking Co.	Fairfield	01 02	RA RA	PRP PRP	05/12/93 09/15/97	4	1997	4 4	1998 2000

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE	PRESENT COMPLETION SCHEDULE
2	NJ	Chemical Insecticide Corp.	Edison Township	02	RI/FS	F	03/29/85	4 1997	2 1999
2	NJ	Chemical Leaman Tank Lines, Inc.	Bridgeport	01 02	RA RI/FS	PRP F	09/30/97 07/15/85	1 1998	3 1999 1 1999
2	NJ	Chemsol, Inc.	Piscataway	01	RI/FS	F	09/28/90	1 1997	4 1998
2	NJ	Ciba-Geigy Corp. (TOMS RIVER CHEMICAL)	Toms River	02 02	RI/FS RI/FS	F PRP	09/30/89 07/05/89	3 1999	1 1998 3 1999
2	NJ	Cinnaminson Township (Block 702) Ground Water Contamination	Cinnaminson Township	01	RA	PRP	05/11/95		1 1997
2	NJ	Combe Fill South Landfill	Chester Township	01	RA	S	09/28/90	4 1996	2 1998
2	NJ	D'Imperio Property	Hamilton Township	01	RA	PRP	05/10/94	4 1997	4 1998
2	NJ	DeRenewal Chemical Co.	Kingwood Township	01	RA	F	09/27/96		1 1999
2	NJ	Diamond Alkali Co.	Newark	02	RI/FS	PRP	04/20/94	1 1997	1 2001
2	NJ	Dover Municipal Well 4	Dover Township	02	RI/FS	F	07/06/93	2 1997	1 2000
2	NJ	Ellis Property	Evesham Township	01 02	RA RA	S S	09/30/97 09/30/97		3 1999 4 2000
2	NJ	Evor Phillips Leasing	Old Bridge Township	01 02	RA RI/FS	PS PS*	02/15/96 02/15/96	3 2000 1 1998	3 2000 4 1999
2	NJ	Ewan Property	Shamong Township	02	RA	PRP	09/26/97		4 1999
2	NJ	Fair Lawn Well Field	Fair Lawn	01	RI/FS	F	09/30/92	2 1996	2 2000
2	NJ	Federal Aviation Administration Technical Center	Atlantic City	01 02 07 11 12 13	RA RA RI/FS RI/FS RI/FS RI/FS	FF FF FF FF FF FF	08/19/92 10/24/95 06/01/87 06/01/87 06/01/87 11/01/95	4 1996 1 1997 4 1996	2 1995 4 1998 4 1998 4 1999 4 2000

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE		PRESENT COMPLETION SCHEDULE	
2	NJ	Florence Land Recontouring Landfill	Florence Township	01	RA	S	09/29/89	1	1997	4	1998
2	NJ	Fort Dix (Landfill Site)	Pemberton Township	02 03	RI/FS RI/FS	FF FF	06/19/91 10/01/92	2 4	1998 1997	2 2	1999 1999
2	NJ	Franklin Burn	Franklin Township	01	RI/FS	F	09/30/92	2	1997	4	1998
2	NJ	Fried Industries	East Brunswick Township	01 01	RA RA	F F	05/27/97 09/30/97			3 1	1998 1999
2	NJ	Garden State Cleaners Co.	Minotola	02	RA	F	09/24/96			1	2000
2	NJ	Glen Ridge Radium Site	Glen Ridge	01 02 03	RA RI/FS RA	F F F	09/15/89 03/30/90 09/30/92	4 2 4	1998 1995 1998	4 2 4	1998 1997 2000
2	NJ	Grand Street Mercury	Hoboken	01	RA	F	09/30/97			2	2000
2	NJ	Hercules, Inc. (Gibbstown Plant)	Gibbstown	02	RI/FS	PS	07/02/86	1	1997	3	2000
2	NJ	Higgins Farm	Franklin Township	01	RA	F	03/17/95	2	1997	1	1999
2	NJ	Horseshoe Road	Sayreville	01	RI/FS	F	09/23/96			2	2000
2	NJ	Imperial Oil Co., Inc./Champion Chemicals	Morganville	01 01 03	RA RA FS	S F S	09/29/94 09/30/97 09/28/84	1 3	1998 1995	2 1 4	2000 1999 1998
2	NJ	Industrial Latex Corp.	Wallington Borough	01 02	RA RI/FS	F F	09/25/97 09/30/93			4 4	2000 1999
2	NJ	Kin-Buc Landfill	Edison Township	00	RI	F	05/05/97			4	1998
2	NJ	King of Prussia	Winslow Township	03	RA	PRP	07/22/94	1	1995	1	1995

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE		PRESENT COMPLETION SCHEDULE	
2	NJ	Lipari Landfill	Pitman	02	RA	F	09/30/88	4	1999	4	1999
2	NJ	Maywood Chemical Co.	Maywood/Rochelle Park	01	RI/FS	PRP	09/21/87	4	1996	2	1999
				02	RI/FS	FF	07/21/90	4	1996	2	1999
2	NJ	Monitor Devices/Intercircuits, Inc.	Wall Township	01	RI/FS	F	03/12/92	4	1997	4	1999
2	NJ	Montclair/West Orange Radium Site	Montclair/West Orange	01	RA	F	09/15/89	4	1998	4	1998
				02	RI/FS	F	03/30/90	2	1995	4	1999
				03	RA	F	09/30/92	4	1998	4	2000
2	NJ	Naval Air Engineering Center	Lakehurst	26	RI/FS	FF	09/25/89			2	1999
2	NJ	Naval Weapons Station	Colts Neck	03	RI/FS	FF	09/27/90			1	1998
				04	RI/FS	FF	09/27/90			2	1998
				05	RI/FS	FF	09/27/90			3	1998
				06	RI/FS	FF	09/27/90			3	1998
2	NJ	Picatinny Arsenal	Rockaway Township	02	RI/FS	FF	04/19/93			4	2000
				03	RI/FS	FF	01/04/93			4	1999
				04	RI/FS	FF	01/10/95			4	2001
2	NJ	Reich Farms	Pleasant Plains	02	RA	PRP	09/25/95			4	1998
2	NJ	Rockaway Borough Well Field	Rockaway Township	03	RI/FS	F	09/30/92	1	1997	4	1999
				03	RI/FS	PRP*	09/27/95	1	1997	4	1999
2	NJ	Rockaway Township Wells	Rockaway	02	RI/FS	PS	03/13/96			1	1999
2	NJ	Rocky Hill Municipal Well	Rocky Hill Borough	02	RI	F	08/06/97			4	1998
2	NJ	Roebling Steel Co.	Florence	05	RI/FS	F	09/30/95			1	1999
2	NJ	Sayreville Landfill	Sayreville	01	RA	PS	02/13/96	3	1997	4	1998
				02	RI/FS	PS	11/26/91	1	1997	3	1998

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE		PRESENT COMPLETION SCHEDULE	
2	NJ	Scientific Chemical Processing	Carlstadt	02 03	RI/FS FS	PRP PRP	12/19/88 09/07/95	1	1996	4 1	1998 1999
2	NJ	Sheild Alloy Corp.	Newfield Borough	02	RI/FS	PS	10/05/88	2	1997	1	2000
2	NJ	South Jersey Clothing Co.	Minotola	01 02	RA RA	F F	09/24/96 09/24/96			1 1	2000 2000
2	NJ	Swope Oil & Chemical Co.	Pennsauken	01	RA	PRP	09/07/88	3	1997	4	2000
2	NJ	Syncon Resins	South Kearny	01 02	RA RI/FS	S S	05/23/89 09/27/96	2	1994	2 4	1999 1999
2	NJ	U.S. Radium Corp.	Orange	01 01 01 02	RA RA RA RA	F F F F	06/18/96 06/18/96 08/15/97 09/30/97			4 4 2 4	1999 1998 2000 2000
2	NJ	Universal Oil Products (Chemical Division)	East Rutherford	01	RA	PS	11/08/95			4	1998
2	NJ	Vineland Chemical Co., Inc.	Vineland	02	RA	F	09/24/96			2	1999
2	NJ	WR Grace & Co. Inc./Wayne Interim Storage Site	Wayne Township	01	RI/FS	FF	07/21/90	4	1996	1	2000
2	NJ	Welsbach & General Gas Mantle (Camden)	Camden and Gloucester City	01 02	RI/FS RI/FS	F PRP	09/20/96 09/24/97			4 4	1998 1998
2	NJ	White Chemical Corp.	Newark	02	RI/FS	F	09/30/96			2	1999
2	NJ	Williams Property	Swainton	01	RA	S	06/30/93	2	1995	2	1995
2	NY	American Thermostat Co.	South Cairo	02	RA	F	06/30/93	3	1999	4	1998
2	NY	Brookhaven National Laboratory (USDOE)	Upton	01 02 03 04 05	RI/FS RI/FS RI/FS RA RI/FS	FF FF FF FF FF	05/11/93 12/14/94 06/30/94 06/11/97 10/29/93	2 4 3 1 4	1998 1998 1998 1997 1997	1 1 2 1 3	1999 1999 1999 2000 1999

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE	PRESENT COMPLETION SCHEDULE
2	NY	Carrol & Dubies Sewage Disposal	Port Jervis	06	RI/FS	FF	06/02/94	2 1997	3 1997
2	NY	Circuitron Corp.	East Farmingdale	02	RI/FS	PRP	07/31/92	3 1996	3 1996
2	NY	Claremont Polychemical	Old Bethpage	04	RA	F	09/10/97		1 2000
				06	RA	F	09/30/93		1 1999
					RA	F	09/30/93		4 1997
2	NY	Cortese Landfill	Vil. of Narrowsburg	02	RA	PRP	05/16/97		1 1999
2	NY	Endicott Village Well Field	Village of Endicott	03	RA	PRP	03/06/95	4 1996	4 1996
2	NY	FMC Corp. (Dublin Road Landfill)	Town of Shelby	01	RA	PS	05/02/94	4 1996	4 1998
2	NY	Facet Enterprises, Inc.	Elmira	01	RA	PRP	05/14/96	1 1998	4 1998
2	NY	Fulton Terminals	Fulton	02	RA	PRP	03/31/95	4 1997	2 1999
2	NY	GCL Tie & Treating Inc.	Village of Sidney	01	RA	F	09/30/97		2 1999
2	NY	Genzale Plating Co.	Franklin Square	03	RA	F	09/30/94		4 1997
2	NY	Goldisc Recordings, Inc.	Holbrook	02	RI/FS	PRP	06/27/91		4 1998
2	NY	Griffiss Air Force Base	Rome	01	RI/FS	FF	03/29/90	2 1998	2 1994
2	NY	Hertel Landfill	Plattekill	01	RA	PRP	09/30/96		1 1999
2	NY	Hooker (102nd Street)	Niagara Falls	01	RA	PRP	11/07/95	4 1998	4 1998
				01	RA	PRP	04/08/96	1 1995	4 1998
2	NY	Hooker (Hyde Park)	Niagara Falls	01	RA	PRP	08/15/87	1 1997	4 1997
2	NY	Hooker (South Area)	Niagara Falls	01	RA	PRP	11/02/90	1 1998	1 2001
				01	RA	PRP	11/02/90	4 1997	2 2000
				01	RA	PRP	12/09/93	1 1999	1 2000

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE	PRESENT COMPLETION SCHEDULE
2	NY	Hooker Chemical/Ruco Polymer Corp.	Hicksville	03	RI/FS	PRP	09/23/94	4 1996	2 1997
2	NY	Hudson River PCBs	Hudson River	01 02	RA RI/FS	S F	09/28/84 07/25/90	1 1997	1 1992 1 2000
2	NY	Islip Municipal Sanitary Landfill	Islip	01	RA	PS	03/31/95	4 1996	3 1998
2	NY	Jones Chemicals, Inc.	Caledonia	01	RI/FS	PRP	03/29/91	1 1997	1 1998
2	NY	Kentucky Avenue Well Field	Horseheads	02	RA	PRP	07/15/96		1 1999
2	NY	Li Tungsten Corp.	Glen Cove	01 03	RI/FS RI/FS	F F	08/26/92 09/03/97	3 1997	4 1998 2 1999
2	NY	Liberty Industrial Finishing	Farmingdale	01 01	RI/FS RI/FS	F PRP	09/28/90 01/24/97	2 1996	2 1999 2 1999
2	NY	Little Valley	Little Valley	01 02	RA RI/FS	F F	05/08/97 09/27/96		1 1999 1 2000
2	NY	Love Canal	Niagara Falls	05 07	RA RA	PRP S	01/14/97 02/09/87	3 1998	4 2000 3 1999
2	NY	Ludlow Sand & Gravel	Clayville	02	RI/FS	PS	11/12/89		1 1999
2	NY	Mattiace Petrochemical Co., Inc.	Glen Cove	03 04 06	RA RA RA	F F F	09/20/96 09/30/93 06/30/93	3 1998 4 1997	4 1998 4 1998 4 1997
2	NY	Niagara County Refuse	Wheatfield	01	RA	PRP	09/30/97		1 2000
2	NY	Onondaga Lake	Syracuse	01 01 01 02 03 05 06	RI/FS RI/FS RI/FS RI/FS RI/FS RI/FS RI/FS	PS S F* PRP PRP PRP PRP	09/30/94 09/30/94 09/30/94 03/16/92 08/10/90 10/20/95 06/26/89	4 1998	4 2001 4 2001 2 1998 2 2001 1 1997 2 1998 1 1997

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE	PRESENT COMPLETION SCHEDULE
2	NY	Plattsburg Air Force Base	Plattsburgh	05	RI/FS	FF	04/23/91	1 1997	2 1999
				06	RI/FS	FF	06/04/92	3 1997	2 2000
				07	RI/FS	FF	10/01/92	2 1998	4 2000
				08	RA	FF	04/14/97		4 1998
				10	RA	FF	04/14/97		4 1998
				11	RI/FS	FF	04/29/97		2 1999
2	NY	Preferred Plating Corp.	Farmingdale	01	RA	F	01/31/92	2 2008	2 2001
2	NY	Ramapo Landfill	Ramapo	01	RA	PS	06/20/94	4 1996	4 1998
2	NY	Robintech, Inc./National Pipe Co.	Town of Vestal	03	FS	F	11/25/92		* 20
2	NY	Rowe Industries Ground Water Contamination	Noyack/Sag Harbor	01	RA	PRP	02/28/97		2 2002
2	NY	Sarney Farm	Amenia	02	RA	PRP	01/22/97		4 1998
2	NY	Seneca Army Depot	Romulus	01	RI/FS	FF	03/19/90	2 1997	3 1998
				02	RI/FS	FF	04/29/91	2 1997	2 1998
				03	RI/FS	FF	03/31/95	4 1998	1 1999
				04	RI/FS	FF	03/30/95	4 1998	1 1999
				05	RI/FS	FF	06/19/95	3 1999	4 2000
				06	RI/FS	FF	09/20/95	2 2000	4 2001
				07	RI/FS	FF	10/26/95	2 1999	1 2000
				08	RI/FS	FF	11/15/95	4 1999	1 2001
				09	RI/FS	FF	12/21/95	2 1999	4 1999
				10	RI/FS	FF	01/22/96	1 2000	1 2001
				11	RI/FS	FF	01/31/96	1 2000	1 2000
				12	RI/FS	FF	12/04/96		1 2003
2	NY	Sinclair Refinery	Wellsville	02	RA	PRP	03/03/95	1 1996	1 1998
2	NY	Syosset Landfill	Oyster Bay	01	RA	PRP	07/19/96		4 1998
2	NY	Tri-Cities Barrel Co., Inc.	Port Crane	01	RI/FS	PRP	05/14/92	4 1997	3 1999

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE	PRESENT COMPLETION SCHEDULE
2	NY	Vestal Water Supply Well 1-1	Vestal	02 02	RA RA	F PRP*	09/30/94 09/30/94	4 1998 4 1998	4 1999 4 2000
2	NY	Warwick Landfill	Warwick	01	RA	PRP	08/25/95	2 1997	4 1997
2	NY	York Oil Co.	Warwick	02	RI/FS	PRP	05/21/92	3 1997	3 1998
2	PR	Fibers Public Supply Wells	Jobos	02	RA	PRP	09/28/95	2 1997	2 1999
2	PR	GE Wiring Devices	Juana Diaz	02	RA	PRP	02/22/96		1 2000
2	PR	Upjohn Facility	Barceloneta	01 01	RA RA	PRP PRP	04/19/89 02/11/92	1 1996 3 1994	1 1999 2 1999
2	PR	V&M/Albaladejo	Almirante Norte Ward	01	RI/FS	F	09/30/96		4 1999
2	PR	Vega Alta Public Supply Wells	Vega Alta	01	RA	PRP	09/18/92	4 1994	4 1994
2	VI	Island Chemical Corp/V.I. Chemical Corp	Christiansted	01	RI/FS	PRP	09/29/94	4 1996	1 2000
3	DE	Army Creek Landfill (Delaware Sand & Gravel Llangollen)	New Castle County	02	RA	MR	07/23/91		3 2020
3	DE	Chem-Solv, Inc.	Cheswold	01	RA	PRP	05/28/97		4 2010
3	DE	Coker's Sanitation Service Landfills	Kent County	01 01	RA RA	F F	09/30/90 09/30/90		4 1998 1 1999
3	DE	Delaware City PVC Plant (Stauffer Chemical Co.)	Delaware City	02 03 04	RA RI/FS RI/FS	PRP PRP PRP	09/29/89 06/30/95 12/12/95	1 1998 1 1997	2 2011 2 1999 2 1999
3	DE	Delaware Sand & Gravel-Llangollen/Army Creek Landfill)	New Castle County	05	RA	PRP	07/24/96	3 1997	3 2005

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE	PRESENT COMPLETION SCHEDULE
3	DE	Dover Air Force Base	Dover	02	RA	FF	08/09/94	4 1996	4 2000
				13	RI/FS	FF	09/30/93		4 1998
				15	RI/FS	FF	09/30/93		4 1998
				16	RI/FS	FF	09/30/93		4 1999
3	DE	Dover Gas Light Co.	Dover	01	FS	PRP	07/10/95		
3	DE	Koppers Co., Inc. (Newport Plant)	Newport	01	RI/FS	PRP	09/26/91	3 1998	3 1999
3	DE	NCR Corp. (Millsboro Plant)	Millsboro	01	RA	PRP	04/10/96		3 2016
3	DE	Tybouts Corner Landfill	Smyrna	01	RA	MR	11/25/92	1 1997	4 2017
3	DE	Wildcat Landfill	Dover	01	RA	PRP	10/16/89	2 1997	4 1998
				02	RA	PRP	02/15/91	2 1997	4 1998
3	MD	Aberdeen Proving Ground (Edgewood Area)	Edgewood	01	RA	FF	05/01/97		1 1999
				02	RI/FS	FF	03/27/90	1 1998	1 1999
				03	RA	FF	08/18/97		1 1999
				04	RA	FF	10/18/95	4 1996	4 1998
				08	RI/FS	FF	03/27/90	3 1997	3 1997
				10	RI/FS	FF	03/27/90	3 1997	3 1997
				12	RA	FF	09/02/97		1 1998
				13	RA	FF	07/21/97		2 1999
				14	RI/FS	FF	09/27/91		4 2013
				15	RI	FF	05/31/97		1 1999
3	MD	Aberdeen Proving Grounds (Michaelsville Landfill)	Aberdeen	02	RI/FS	FF	03/27/90	4 1998	4 2009
				03	RI/FS	FF	03/27/90	1 2000	1 2000
				06	RI/FS	FF	08/30/91	1 2005	1 2001
3	MD	Beltsville Agricultural Research (USDA)	Beltsville	01	RI/FS	FF	10/26/96		1 1999
				03	RI/FS	FF	01/22/97		2 1999
3	MD	Central Chemical (Hagerstown)	Hagerstown	01	RI/FS	PRP	08/29/97		3 1999

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE	PRESENT COMPLETION SCHEDULE
3	MD	Fort George G. Meade	Odenton	01	RI/FS	FF	01/17/95		4 1998
				02	RI/FS	FF	01/17/95		4 1998
				03	RI/FS	FF	11/08/95		4 1998
				04	RI/FS	FF	11/08/95		2 1999
				05	RI/FS	FF	11/08/95		4 1998
				06	RI/FS	FF	01/17/95		1 1999
				07	RA	FF	08/06/96		4 1998
				07	RI/FS	FF	11/08/95		1 1999
				08	RI/FS	FF	06/12/95		1 1999
3	MD	Indian Head Naval Surface Warfare Center	Indian Head	02	RI/FS	FF	06/30/97		4 1999
				03	RI/FS	FF	06/30/97		2 2000
				05	RI/FS	FF	06/30/97		4 2001
3	MD	Ordnance Products	Cecil County	01	RI/FS	F	09/25/96	3 1998	3 1999
3	MD	Patuxent River Naval Air Station	St. Mary's County	01	RI/FS	FF	02/18/97		1 1999
				02	RI/FS	FF	02/18/97		1 1999
				03	RI/FS	FF	02/18/97		2 1999
				04	RI/FS	FF	02/18/97		3 1999
				05	RI/FS	FF	02/18/97		4 1998
				06	RI/FS	FF	02/18/97		2 1999
				08	RI/FS	FF	02/18/97		1 1999
				09	RI/FS	FF	02/18/97		3 1999
				11	RI/FS	FF	02/18/97		3 1999
				12	RI/FS	FF	02/18/97		2 1999
				13	RI/FS	FF	02/18/97		2 1999
				14	RI/FS	FF	02/18/97		3 1999
				15	RI/FS	FF	02/18/97		3 1999
				16	RI/FS	FF	02/18/97		2 1999
				17	RI/FS	FF	02/18/97		2 1999
				18	RI/FS	FF	02/18/97		3 1999
				19	RI/FS	FF	02/18/97		2 1999
				20	RI/FS	FF	02/18/97		3 1999
				27	RI/FS	FF	02/18/97		2 1999
				29	RI/FS	FF	02/18/97		4 1998

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE	PRESENT COMPLETION SCHEDULE
3	MD	Sand, Gravel & Stone	Elkton	03 04	RA RI/FS	PRP PRP	05/18/95 06/08/95	2 1997	4 2018 1 1999
3	MD	Southern Maryland Wood Treating	Hollywood	02	RA	F	01/23/97		4 1999
3	MD	Spectron, Inc.	Elkton	01	RI/FS	PRP	05/20/96	4 1998	1 2000
3	PA	Aladdin Plating, Inc.	Scott Township	02	RA	F	01/28/96		4 1997
3	PA	Austin Avenue Radiation Site	Deleware County	01	RA	F	12/13/94	1 1999	3 1998
3	PA	Avco Lycoming (Williamsport Division)	Williamsport	01 02	RA RA	PRP PRP	05/02/97 09/24/97		1 2004 3 2003
3	PA	Bally Ground Water Contamination	Bally Borough	01	RA	PRP	02/17/95	4 1997	4 1999
3	PA	Bendix Flight Systems Division	Bridgewater Township	05	RA	PRP	06/23/94	4 1996	4 2016
3	PA	Berks Sand Pit	Longswamp Township	03	RA	F	08/16/91		3 2004
3	PA	Boarhead Farms	Bridgeton Township	01	RI/FS	F	12/05/89	2 1997	3 1998
3	PA	Breslube-Penn, Inc	Coraopolis	01	RI/FS	F	09/18/96		4 1999
3	PA	Brodhead Creek	Stroudsburg	01	RA	PRP	05/04/94	1 1997	4 1998
3	PA	Centre County Kepone	State College Boro	02	RI/FS	PRP	09/30/96		3 2000
3	PA	Commodore Semiconductor Group	Lower Providence Townsh	01	RA	PRP	11/18/94	2 1997	4 1998
3	PA	Crater Resources/Keystone Coke/Alan Wood	Upper Merion Township	01	RI/FS	PRP	09/07/94	3 1998	1 1999

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE		PRESENT COMPLETION SCHEDULE	
3	PA	Croydon TCE	Croydon	02	RA	F	09/30/91	2	2005	1	2016
3	PA	CryoChem, Inc.	Worman	02	RA	F	09/30/93	1	1998	3	2008
3	PA	Dorney Road Landfill	Upper Macungie Township	01 02	RA RA	PRP PRP	06/14/95 12/28/95	4 1	1998 1997	1 4	1999 1998
3	PA	Drake Chemical	Lock Haven	03	RA	F	09/30/91	3	1998	4	1999
3	PA	Dublin TCE Site	Dublin Borough	02	RI/FS	PRP	08/15/91	3	1997	2	1999
3	PA	East Mount Zion	Springettsbury Township	01	RA	F	09/30/94	4	1998	3	1999
3	PA	Eastern Diversified Metals	Hometown	02 04	RA FS	PRP PRP	08/29/96 06/30/97	4	1998	1 1	1999 1999
3	PA	Fischer & Porter Co.	Warminster	02	RI/FS	F	02/20/92	2	1997	4	1998
3	PA	Foote Mineral Co.	East Whiteland Township	01	RI/FS	PRP	09/30/96	2	1998	1	1999
3	PA	Havertown PCP	Haverford	01 02 03	RA RA RI/FS	F F F*	07/27/90 09/27/96 08/15/91			4 2 1	1999 1999 2000
3	PA	Heleva Landfill	North Whitehall	05	RA	PRP	09/05/97			4	2028
3	PA	Hellertown Manufacturing Co.	Hellertown	02	RA	F	09/22/93	2	1997	2	2026
3	PA	Henderson Road Site	Upper Merion Township	04	RA	PRP	09/12/92			1	2008
3	PA	Industrial Lane	Williams Township	02	RA	PS	08/02/96			4	2018
3	PA	Keystone Sanitation Landfill	Union Township	02 03 04	RI/FS RA RA	F F PRP	04/21/94 08/22/97 08/22/97	3	1997	4 4 4	1998 1999 2018

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE	PRESENT COMPLETION SCHEDULE
3	PA	Kimberton Site	Kimberton Borough	02	RA	PRP	02/26/93		1 2014
3	PA	Letterkenny Army Depot (Property Disposal Office Area)	Franklin County	02	RI/FS	FF	02/03/89	3 1997	1 1999
				03	RI/FS	FF	08/31/94	3 1997	1 2000
				04	RI/FS	FF	08/31/94	3 1999	1 2002
				05	RI	FF	05/01/97		1 2002
3	PA	Letterkenny Army Depot (Southeast Area)	Chambersburg	01	RA	FF	09/08/93	1 1997	1 1999
				02	RI/FS	FF	02/03/89	1 1998	4 1999
				03	RI/FS	FF	02/03/89	3 1997	1 2000
				04	RI/FS	FF	07/31/94	4 1997	1 2000
				05	RI/FS	FF	07/31/94	2 1998	1 2001
				06	RI/FS	FF	07/31/94	1 1998	1 2002
				07	RI/FS	FF	07/31/94		2 1999
3	PA	Lord-Shope Landfill	Girard Township	01	RA	PRP	07/20/94	3 1997	4 2024
3	PA	Metropolitan Mirror and Glass	Frackville	01	RI/FS	F	09/19/94	2 1997	4 1998
3	PA	Mill Creek Dump	Erie	01	RA	F	02/01/92	3 2005	3 2007
				02	RA	PRP	05/04/92	1 1998	2 1999
3	PA	Naval Air Development Center (8 waste centers)	Warminster Township	01	RA	FF	01/15/95	3 1997	1 2000
				04	RA	FF	09/13/96	3 1998	3 1999
				06	RI	FF	09/20/90		3 1999
3	PA	Navy Ships Parts Control Center	Mechanicsburg	01	RI/FS	FF	05/19/97		2 1999
				03	RI/FS	FF	02/11/97		4 1998
				04	RI/FS	FF	09/03/97		1 2000
3	PA	North Penn-Area 2 (Ametek, Inc. Hunter Spring Division)	Hatfield	01	RI/FS	F	06/30/88	2 1999	2 2001
				02	RI	PRP	07/08/93		4 1998
				02	RI	PRP	07/08/93		4 1998
				02	RI/FS	PRP	01/31/93	1 1998	2 2001

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS, ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE		PRESENT COMPLETION SCHEDULE	
3	PA	North Penn-Area 6 (J.W. Rex/Allied Paint/Keystone hydra	Lansdale	02 03	RI/FS RI/FS	PRP F	05/11/95 09/28/93	2 1	1998 1998	1 4	1999 1998
3	PA	Occidental Chemical Corp./Firestone Co.	Lower Pottsgrove Twp.	01	RA	PRP	08/05/97			3	2029
3	PA	Ohio River Park	Neville Island	03	RI/FS	PRP	09/27/96			4	1998
3	PA	Old City of York Landfill	Seven Valleys	01	RA	PRP	05/08/95	1	1997	4	2027
3	PA	Osborne Landfill	Grove City	01	RA	PRP	01/24/95	1	1998	4	2029
3	PA	Palmerton Zinc Pile	Palmerton	01 04	RA RI/FS	PRP F	07/31/88 12/02/96	1	2000	1 2	2000 1999
3	PA	Publicker Industries Inc.	Philadelphia	03	RA	PRP	07/17/97			4	1998
3	PA	Raymark	Hatboro	03	RA	F	06/17/93			4	2004
3	PA	Rodale Manufacturing Co., Inc.	Emmaus Borough	01	RI/FS	PRP	09/22/92	2	1998	2	1999
3	PA	Strasburg Landfill	Newlin Township	04	RI/FS	F	01/14/92	3	1997	4	2000
3	PA	Tobyhanna Army Depot	Toby Hanna	04 05 06 07	RI/FS RI/FS RI/FS RI/FS	FF FF FF FF	06/22/93 06/22/93 06/22/93 09/01/96	1 1 2	1997 1997 1997	1 2 1 3	1999 1999 1999 1999
3	PA	Tysons Dump	Upper Merion Township	01 03	RA RA	PRP PRP	06/03/88 07/22/96	1 3	1997 1997	1 3	1998 2017
3	PA	Walsh Landfill	Honeybrook Township	02 04	RA RI/FS	F F	11/09/95 05/01/90			1 1	1999 2000
3	PA	Westinghouse Elevator Co. (Sharon Plant)	Sharon	01	RI/FS	PS	09/20/88	1	1998	1	1999

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE	PRESENT COMPLETION SCHEDULE
3	PA	Westinghouse Elevator Co. Plant	Gettysburg	01	RA	PRP	05/30/97		4 2019
3	PA	Whitmoyer Laboratories	Jackson Township	04 06	RA RA	PRP PRP	02/06/97 05/10/96	3 1998	3 1999 4 2017
3	PA	William Dick Lagoons	West Caln Township	01	RA	F	03/24/97		2 1999
3	PA	Willow Grove Naval Air & Air Res. Stn.	Willow Grove	01	RI/FS	FF	05/28/97		2 1999
3	VA	Abex Corporation	Portsmouth	01	RA	PRP	01/03/97		4 1999
3	VA	Avtex Fibers, Inc.	Front Royal	04 07 08 09	RA RI/FS RI/FS RI/FS	F PRP PRP F	07/22/91 03/30/93 06/19/95 07/23/96	1 1998 1 1998 1 1998	1 1999 4 2000 1 1999 4 1999
3	VA	Buckingham County Landfill	Buckingham	01	RA	PRP	07/02/97		1 1999
3	VA	C&R Battery Co., Inc.	Chesterfield County	01	RA	PRP	04/28/92	1 1997	4 1998
3	VA	Chisman Creek	York County	02	RA	PRP	01/25/89		4 1999
3	VA	Defense General Supply Center	Chesterfield County	02 03 04 06 07 08 10 11 12 13	RI/FS RA RI/FS RI/FS RI/FS RI/FS RI/FS RI/FS RI/FS RI/FS	FF FF FF FF FF FF FF FF FF FF	09/21/90 01/31/97 09/21/90 10/11/91 10/11/91 10/11/91 07/15/95 07/15/95 07/14/95 07/14/95	3 1997 2 1998 4 1997 2 1997 4 1998	1 1999 3 1999 4 1998 2 1999 3 2000 2 1999 1 1999 1 1999 1 2000 1 2000

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE	PRESENT COMPLETION SCHEDULE
3	VA	Fort Eustis (US Army)	Newport News	01	RI/FS	FF	04/30/96	2 1998	1 1999
				02	RI/FS	FF	10/01/95		4 1998
				03	RI	FF	01/30/95		4 1998
				04	RI	FF	07/30/97		4 1999
				05	RI	FF	05/30/97		4 1999
3	VA	Greenwood Chemical Co.	Newton	02	RA	F	09/29/97		4 2018
				04	FS	F	09/26/96		4 1998
3	VA	Langley Air Force Base/NASA Langley Cntr	Hampton	03	RI/FS	FF	12/16/93	1 1998	1 1999
				05	RI/FS	FF	11/01/96		4 1999
				21	RI/FS	FF	06/17/96		2 2000
				22	RI/FS	FF	05/26/97		3 2000
				23	RI/FS	FF	06/17/96		2 2000
				24	RI/FS	FF	12/31/95		2 2000
				25	RI/FS	FF	08/05/96		2 2000
				26	RI/FS	FF	03/10/97		2 2000
				28	RI/FS	FF	08/05/96		2 2030
				29	RI/FS	FF	08/05/96		2 2000
				30	RI/FS	FF	08/05/96		2 2000
				31	RI/FS	FF	08/05/96		2 1999
				32	RI/FS	FF	05/26/97		2 2000
				33	RI/FS	FF	06/17/96		2 2000
				35	RI/FS	FF	10/17/96		2 2000
				37	RI/FS	FF	06/17/96		2 2000
				42	RI/FS	FF	06/17/96		2 1999
				44	RI/FS	FF	06/17/96		2 2000
				47	RI	FF	09/13/97		2 1999
				49	RI/FS	FF	10/01/96		3 2000
				50	RI/FS	FF	08/31/95		1 1999
3	VA	Marine Corps Combat Development Command	Quantico	01	RI/FS	FF	12/01/96	1 1997	4 1998
				02	RI/FS	FF	12/31/96		1 2000
				03	RI/FS	FF	12/31/96		4 1998
				04	RI/FS	FF	12/31/96		1 1999
				05	RI/FS	FF	12/31/96		4 1998
				06	RI/FS	FF	12/31/96		4 1998
				07	RI/FS	FF	12/31/96		4 1998

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE	PRESENT COMPLETION SCHEDULE
3	VA	Naval Surface Warfare - Dahlgren	Dahlgren	03	RI/FS	FF	12/13/93	4 1997	4 1998
				04	RI/FS	FF	12/13/93	3 1997	4 1998
				05	RI/FS	FF	12/13/93		4 1998
				06	RI/FS	FF	10/10/96		3 2000
				07	RI/FS	FF	10/10/96		3 2000
				08	RI/FS	FF	10/10/96		3 2000
				09	RI/FS	FF	12/13/93		3 1999
3	VA	Naval Weapons Station - Yorktown	Yorktown	02	RI/FS	FF	07/25/94	2 1997	4 1998
				06	RI/FS	FF	02/05/96		3 1998
				07	RI/FS	FF	07/03/96		1 2000
				08	RI/FS	FF	10/23/96		3 1999
				09	RI/FS	FF	01/13/97		1 2000
				10	RI/FS	FF	07/31/97		1 2001
3	VA	Norfolk Naval Base (Sewells Pt Nvl Cmpx)	Norfolk	04	RA	FF	07/07/97		4 1998
3	VA	Rinehart Tire Fire Dump	Frederick County	01	RA	F	09/29/89	1 1997	3 2002
				02	RA	F	08/26/94	1 1997	2 1999
				03	RI/FS	F	06/17/94	1 1998	1 1999
3	VA	Saltville Waste Disposal Ponds	Saltville	04	RI/FS	PRP	09/15/88	3 1998	4 2000
3	VA	Saunders Supply Co.	Chuckatuck	01	RA	F	09/25/96	2 1998	1 1999
3	VA	U.S. Titanium	Piney River	01	RA	PRP	08/18/94	3 1997	4 1999
3	WV	Allegany Ballistics Laboratory (USNAVY)	Mineral	02	RI/FS	FF	12/20/94	1 1997	1 2001
				04	RI/FS	FF	12/20/94		4 1999
3	WV	Fike Chemical	Nitro	04	RI/FS	PRP	09/30/94	2 1998	4 2000
3	WV	Sharon Steel Corp (Fairmont Coke Works)	Fairmont	01	RI/FS	PRP	09/17/97		2 1999

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE	PRESENT COMPLETION SCHEDULE
3	WV	West Virginia Ordnance	Point Pleasant	08	RI/FS	FF	09/28/93	3 1998	3 1998
				09	RI/FS	FF	09/28/93	2 1998	2 1998
				10	RI/FS	FF	01/24/95	3 1998	3 1998
				11	RI/FS	FF	01/04/94	3 1998	3 1998
				12	RI/FS	FF	11/24/94	3 1999	3 1999
				13	RI/FS	F	12/20/95	2 1997	2 1997
4	AL	Alabama Army Ammunition Plant	Childersburg	04	RI/FS	FF	09/27/94	1 1998	3 1999
				06	RA	FF	07/01/97		3 1999
4	AL	Anniston Army Depot (Southeast Industrial Area)	Anniston	01	RI/FS	FF	08/01/94	2 2000	4 1998
				01	RA	FF	05/04/92	1 2000	1 2000
				02	RI/FS	FF	12/12/90	1 2000	1 2000
4	AL	Ciba-Geigy Corp. (McIntosh Plant)	McIntosh	01	RA	PRP	09/28/89	1 2019	1 2019
				02	RA	PRP	09/30/96	4 1998	4 1998
				04	RA	PRP	09/30/96	4 1998	4 1998
				05	RI/FS	EP	05/21/93	1 2000	1 2000
4	AL	Olin Corp. (McIntosh Plant)	McIntosh	02	RI/FS	PRP	06/17/94	2 1997	4 1998
				03	RI/FS	EP	05/21/93	1 2000	1 2000
4	AL	Redstone Arsenal (USARMY/NASA)	Huntsville	01	RI/FS	FF	05/17/95	1 1998	2 1998
4	AL	Stauffer Chemical Co. (Clemoyne Plant)	Axis	01	RA	PRP*	12/18/92		4 1999
				01	RA	PRP	09/27/89	4 1999	4 1999
				01	RA	PRP	08/18/93	4 1999	4 1999
				02	RI/FS	PRP	01/05/90	4 1996	3 1998
				02	RI/FS	PRP	12/30/92		3 1998
				04	RI/FS	PRP	05/21/93	1 2000	1 2000
4	AL	Stauffer Chemical Co. (Cold Creek Plant)	Bucks	01	RA	PRP	12/18/92		4 2010
				01	RA	PRP	09/27/89	4 1999	4 1999
				01	RA	PRP	09/27/93	4 2010	4 2010
				04	RI/FS	F	05/21/93	1 2000	1 2000
4	AL	T.H. Agriculture & Nutrition Co. (Montgomery Plant)	Montgomery	01	RA	PRP	09/27/96	4 1998	4 1998
				02	RI/FS	PRP	07/14/94	1 1997	1 1997

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE	PRESENT COMPLETION SCHEDULE
4	FL	Airco Plating Co.	Miami	01	RA	PRP	12/20/95	1 1997	3 1998
4	FL	American Creosote Works, Inc. (Pensacola Plant)	Pensacola	02	RA	F	09/11/97		2 2002
4	FL	B&B Chemical Co., Inc.	Hialeah	01	RA	PRP	12/07/95	4 1998	4 1998
4	FL	Cabot/Koppers	Gainesville	01	RI/FS	F	05/17/94		4 1998
				01	RA	PRP	09/27/91		4 1999
				01	RA	PRP	09/29/93	4 1995	4 1997
4	FL	Cecil Field Naval Air Station	Jacksonville	01	RA	FF	01/17/97		3 1999
				02	RA	FF	02/02/95	3 1998	3 1999
				02	RA	FF	04/09/97		2 1999
				03	RI/FS	FF	10/22/90	1 1998	1 1999
				05	RI/FS	FF	02/18/92	2 1998	3 1999
				06	RI/FS	FF	02/18/92		3 1998
				08	RI/FS	FF	02/29/96	1 1997	3 1998
4	FL	Dubose Oil Products Co.	Cantonment	01	RA	PRP	02/16/93	1 2001	1 2001
4	FL	Escambia Wood - Pensacola	Pensacola	01	RA	F	05/12/97		4 2000
4	FL	Florida Petroleum Reprocessors	Fort Lauderdale	01	RI/FS	F	05/10/96		4 1998
4	FL	Florida Steel Corp.	Indiantown	02	RA	PRP	01/24/96	2 1997	3 1998
4	FL	Helena Chemical Co.	Tampa	02	RI/FS	PRP	11/06/92	4 1995	4 1995
4	FL	Homestead Air Force Base	Homestead	05	RI/FS	FF	10/01/90	3 1997	2 1998
				07	RI/FS	FF	10/01/90	2 1997	2 1998
				09	RI/FS	FF	05/21/93		2 1998
4	FL	Jacksonville Naval Air Station	Jacksonville	01	RI/FS	FF	10/08/90	4 1996	4 1996
				01	RA	FF	03/20/95	1 2000	2 2000
				02	RI/FS	FF	07/01/92	1 1998	4 1998
				02	RA	FF	03/06/95	1 1997	2 1998
				03	RI/FS	FF	12/17/93	2 1998	1 2001
				04	RI/FS	FF	08/15/97		3 1999

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE	PRESENT COMPLETION SCHEDULE
4	FL	Kassauf-Kimerling Battery Disposal (once listed as Timber Lake Battery Disposal)	Tampa	02	RA	PRP	09/02/94	2 1997	4 1998
4	FL	MRI Corp (Tampa)	Tampa	01	RI/FS	F	12/19/96		1 1999
4	FL	Madison County Sanitary Landfill	Madison	01	RA	PRP	02/07/95	1 1997	1 1997
4	FL	Pensacola Naval Air Station	Pensacola	01	RI/FS	FF	11/01/90	3 1997	3 1998
				02	RI/FS	FF	10/15/90	2 1998	1 1999
				03	RI/FS	FF	10/15/90	3 1997	3 1998
				04	RI/FS	FF	10/15/90	1 1998	2 1999
				05	RI/FS	FF	10/15/90	2 1998	1 1999
				06	RI/FS	FF	10/15/90	2 1997	2 1999
				07	RI/FS	FF	10/15/90	1 1997	1 1999
				08	RI/FS	FF	10/15/90	1 2000	1 2000
				09	RI/FS	FF	11/29/93	2 1998	2 1998
				11	RI/FS	FF	10/01/91	3 1997	3 1999
				13	RI/FS	FF	10/01/91	3 1998	1 1999
				14	RI/FS	FF	10/01/91	2 1998	2 1998
				15	RI/FS	FF	11/29/93	2 1998	1 1999
				16	RI/FS	FF	11/29/93	2 1998	1 1999
4	FL	Pepper Steel & Alloys, Inc.	Medley	01	RA	PRP	03/26/87	4 1998	4 1999
4	FL	Petroleum Products Corp.	Pembroke Park	02	RI/FS	F	09/15/89	4 1996	4 2000
4	FL	Piper Aircraft/Vero Beach Water & Sewer	Vero Beach	01	RA	PRP	09/30/97		1 1999
4	FL	Sapp Battery Salvage	Cottdondale	01	RA	PRP	03/10/93	1 1999	1 1999
				02	RI/FS	F	09/30/90	1 2000	1 2000
4	FL	Sherwood Medical Industries	Deland	01	RA	PRP	09/23/93		4 2010
4	FL	Southern Solvents, Inc.	Tampa	01	RI/FS	F	02/02/97		1 1999

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE		PRESENT COMPLETION SCHEDULE	
4	FL	Stauffer Chemical Co. (Tampa Plant)	Tampa	02	RI/FS	PRP	12/12/92	1	2000	1	2000
4	FL	Tower Chemical Co.	Clermont	02	RI/FS	F	03/22/94	1	1997	1	1997
4	FL	Whitehouse Oil Pits	Whitehouse	01	RI/FS	F	04/15/94	2	1997	4	1998
4	FL	Whiting Field Naval Air Station	Milton	01	RI/FS	FF	11/27/95	3	1998	3	1998
				02	RI/FS	FF	11/27/95	3	1998	2	1999
				03	RI/FS	FF	11/27/95	2	1998	2	1999
4	FL	Zellwood Ground Water Contamination	Zellwood	01	RA	EP	09/21/92			4	1999
4	GA	Brunswick Wood Preserving	Brunswick	01	RI/FS	F	02/24/97			2	1999
4	GA	Cedartown Industries, Inc.	Cedartown	01	RA	PRP	11/16/95	4	1999	4	1999
4	GA	Cedartown Municipal Landfill	Cedartown	01	RA	MR	11/04/94	4	1997	4	1997
4	GA	Diamond Shamrock Corp. Landfill	Cedartown	01	RA	PRP	06/29/95	4	1999	4	1999
4	GA	Firestone Tire & Rubber Co.	Albany	01	RA	PRP	06/28/96	1	1999	1	1999
4	GA	LCP Chemicals Georgia	Brunswick	01	RI/FS	PRP	07/06/95	2	1997	1	1999
				02	RI/FS	PRP	12/12/96			4	1999
4	GA	Marine Corps Logistics Base	Albany	01	RA	FF	12/30/94	4	1999	4	1999
				04	RI/FS	FF	09/15/92	3	1997	4	1999
4	GA	Marzone Inc./Chevron Chemical Co.	Tifton	01	RA	PRP	09/09/96			3	1998
				01	RA	PRP	06/30/97			4	1998
				02	RI/FS	F	04/15/95	1	1997	4	1998
4	GA	Mathis Brothers Landfill (South Marble Top Road)	Kensington	01	RA	PRP	03/18/97			1	1999

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE	PRESENT COMPLETION SCHEDULE
4	GA	Robins Air Force Base (Landfill #4/ Sludge Lagoon)	Houston County	01 02	RA RA	FF FF	12/31/91 08/02/94	1 1998 3 1998	1 1998 3 1998
4	GA	T.H. Agriculture & Nutrition Co.	Albany	01	RA	PRP	11/29/95	4 1998	4 1998
4	GA	Woolfolk Chemical Works, Inc.	Fort Valley	02 03 04 04	RA RI/FS RI/FS FS	PRP PRP PRP PRP	10/03/96 04/24/90 04/24/90 04/24/90		1 1999 3 1998 3 2000 3 2000
4	KY	Airco	Calvert City	01	RA	PRP	09/29/95	4 1997	2 2028
4	KY	B.F. Goodrich	Calvert City	01	RA	PRP	09/29/95	4 1997	4 1997
4	KY	Brantley Landfill	Calvert City	01	RA	PRP	06/24/97		4 2000
4	KY	Distler Brickyard	West Point	01	RA	F	09/28/88	4 2000	4 2000
4	KY	Fort Hartford Coal Co. Stone Quarry	Olaton	01	RA	PRP	03/31/97		1 1999
4	KY	Green River Disposal, Inc.	Macco	01	RA	PRP	04/29/96	1 1998	4 1999
4	KY	National Electric Coil/Cooper Industries	Dayhoit	01 01	RA RA	PRP PRP	02/25/93 09/29/97	3 1995	3 1997 1 1998
4	KY	National Southwire Aluminum Co.	Hawesville	01	RA	PRP	12/12/94	2 1997	4 1997
4	KY	Paducah Gaseous Diffusion Plant (USDOE)	Paducah	01 04 07 08 10 11 13 15 16	RI/FS FS RI/FS RI/FS RI/FS RI/FS RI/FS RI/FS RI/FS	FF FF FF FF FF FF FF FF FF	04/10/89 08/12/93 07/09/93 03/29/95 04/27/93 06/28/93 09/13/95 11/14/96 08/02/97	4 2010 2 1999 4 1999 3 1998 4 1999 3 1999 3 1999 1 2000 3 2001	4 2010 2 1999 4 1999 3 1998 4 1999 3 1999 3 1999 1 2000 3 2001

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE		PRESENT COMPLETION SCHEDULE	
4	KY	Red Penn Sanition Co. Landfill	Pee wee Valley	01	RI/FS	F	08/18/89	1	1998	4	1994
4	KY	Smith's Farm	Brooks	02	RA	PRP	03/13/96	3	1998	4	1998
4	MS	Chemfax, Inc.	Gulfport	01	RI/FS	EP	09/07/94	4	1999	4	1999
4	NC	ABC One Hour Cleaners	Jacksonville	01	RA	F	09/30/96	1	2001	4	2000
4	NC	Aberdeen Pesticide Dumps	Aberdeen	01	RA	PRP	11/25/96			1	1999
				01	RA	PRP	11/25/96			1	1999
				01	RA	PRP	11/25/96			1	1999
				01	RA	PRP	11/25/96			1	1999
				01	RA	PRP	11/25/96			1	1999
				04	RA	PRP	11/25/96			1	1999
4	NC	Battery Tech	Lexington	01	RI/FS	PRP	09/09/94	3	1997	1	1999
4	NC	Benfield Industries, Inc.	Hazelwood	01	RA	F	09/30/96	3	2000	3	2000
4	NC	Bypass 601 Ground Water Contamination	Concord	02	RA	PRP	09/29/97			2	1999
4	NC	Camp Lejeune Military Reservation (Marine Corp Base)	Onslow County	02	RA	FF	03/20/95	1	1999	4	1998
				07	RI/FS	FF	06/08/94	3	1997	2	1998
				10	RI/FS	FF	04/13/92	1	1998	3	1998
				16	RI/FS	FF	02/21/97			3	1999
				17	RI/FS	FF	04/07/97			2	1999
				18	RI/FS	FF	02/21/97			1	1999
4	NC	Cape Fear Wood Preserving	Fayetteville	01	RA	F	09/29/94	2	2000	2	2000
4	NC	Carolina Transformer Co.	Fayetteville	01	RA	F	09/30/97			2	2002
4	NC	Charles Macon Lagoon & Drum Storage	Cordova	01	RA	PRP	06/28/94	1	2000	1	2005
4	NC	Chemtronics, Inc.	Swannanoa	01	RA	PRP	06/10/91	2	1997	2	1997

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE		PRESENT COMPLETION SCHEDULE	
4	NC	Cherry Point Marine Corps Air Station	Havelock	01	RA	FF	03/03/97			1	1999
				02	RI/FS	FF	03/20/96	1	1997	3	1998
				03	RI/FS	FF	07/12/95	2	1997	2	1999
4	NC	Davis Park Road TCE Site	Gastonia	01	RI/FS	F	08/03/95	4	1997	4	1998
4	NC	FCX, Inc. (Statesville Plant)	Statesville	01	RA	F	09/30/96	3	1997	3	1997
				02	RA	F	09/30/97			4	1999
4	NC	Flanders Filters Inc.	Washington	01	RI/FS	PRP	02/12/96	4	1997	4	1998
4	NC	Geigy Chemical Corp. (Aberdeen Plant)	Aberdeen	01	RA	PRP	02/22/96	4	2000	4	2000
4	NC	Harwell Road Septic Pit	Gastonia	01	RI/FS	F	08/22/97			2	1999
4	NC	JFD Electronics/Channel Master	Oxford	01	RA	PRP	09/11/96	3	1999	3	1999
4	NC	Jadco-Hughes Facility	Belmont	01	RA	PRP	06/20/95	4	2001	4	2001
4	NC	Koppers Co., Inc (Morrisville Plant)	Morrisville	01	RA	PRP	06/22/95	3	1999	3	2030
4	NC	Martin-Marietta, Sodyeco, Inc.	Charlotte	01	RA	PRP	09/25/89	2	1999	2	1999
4	NC	National Starch & Chemical Corp.	Salisbury	01	RA	PRP	06/27/90	1	2000	1	2000
4	NC	Potter's Septic Tank Service Pits	Maco	01	RA	F	09/23/94	3	1996	1	1999
4	NC	RAM Leather Care Site	Charlotte	01	RI/FS	F	09/05/97			2	2001
4	NC	Reasor Chemical Company	Castle Hayne	01	RI/FS	F	08/09/96	1	1998	3	1999

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE		PRESENT COMPLETION SCHEDULE	
4	SC	Aqua-Tech Environmental Inc (Groce Labs)	Greer	01	RI/FS	PRP	09/26/95	3	1998	1	2000
4	SC	Calhoun Park/Ansonborough Home	Charleston	01	RI/FS	PRP	01/22/93	2	1997	3	1998
4	SC	Carolawn, Inc.	Fort Lawn	01	RA	PRP	05/12/93	2	1998	4	2008
4	SC	Elmore Waste Disposal	Greer	01	RA	F	09/30/96	2	1998	4	2004
4	SC	Geiger (C & M Oil)	Rantoules	01 02	RA RA	F F	01/19/94 01/19/94	4	1998	4 4	2001 1998
4	SC	Helena Chemical Co. Landfill	Fairfax	01	RA	PRP	05/28/97			4	2009
4	SC	Kalama Specialty Chemicals	Beaufort	01	RA	PRP	04/18/96	1	1997	4	1998
4	SC	Koppers Co., Inc (Florence Plant)	Florence	01	RI/FS	PRP	02/29/88	3	1997	1	1998
4	SC	Koppers Co., Inc. (Charleston Plant)	Charleston	01	RA	PRP	03/25/96	3	1998	4	2008
4	SC	Leonard Chemical Co., Inc.	Rock Hill	01	RI/FS	PRP	12/13/90	1	1997	2	1999
4	SC	Lexington County Landfill Area	Cayce	01	RA	PRP	09/30/96	2	1998	2	1999
4	SC	Medley Farm Drum Dump	Gaffney	01	RA	PRP	09/30/93			4	1999
4	SC	Palmetto Wood Preserving	Dixiana	02	RA	F	09/25/89	1	2000	3	2001
4	SC	Para-Chem Southern, Inc.	Simpsonville	01	RA	PRP	02/15/96	1	1998	4	2003
4	SC	Rochester Property	Travelers Rest	01	RA	PRP	11/14/94			4	2005

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

A-33

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE		PRESENT COMPLETION SCHEDULE	
4	SC	Townsend Saw Chain Co.	Pontiac	01	RA	PRP	06/21/95	3	1996	4	1998
4	TN	Arlington Blending & Packaging	Arlington	00	RA	PRP	12/12/94			4	2027
4	TN	Carrier Air Conditioning Co.	Collierville	01	RA	PRP	11/03/94	3	1995	3	1995
4	TN	Mallory Capacitor Co.	Waynesboro	01	RA	PRP	06/08/93	2	2027	2	2027
4	TN	Memphis Defense Depot (DLA)	Memphis	02	RI/FS	FF	02/09/94	3	1998	4	1999
				03	RI/FS	FF	03/10/94	3	1998	1	2000
				04	RI/FS	FF	05/09/94	4	1998	1	2000
4	TN	Milan Army Ammunition Plant	Milan	01	RA	FF	11/15/93	1	1998	2	1998
				03	RI/FS	FF	10/01/89	4	1998	2	2000
				03	RI/FS	FF	09/04/96			2	2000
				04	RI/FS	FF	10/01/89	1	1998	2	2000
				05	RI/FS	FF	09/04/96			2	2000
				06	RI/FS	FF	09/04/96			2	2000
				07	RI/FS	FF	09/04/96			2	2000
				08	RI/FS	FF	09/04/96			3	2000
				09	RI/FS	FF	10/01/89	1	1998	2	2000
				13	RI/FS	FF	11/26/91	1	1998	3	2000
				13	RI/FS	FF	08/13/96			3	2000
				14	RA	FF	02/18/97			2	1999
				18	RI/FS	FF	05/29/97			2	1999
4	TN	Murray-Ohio Dump	Lawrenceburg	01	RA	PRP	07/16/96	4	1998	4	1998
4	TN	Oak Ridge Reservation (USDOE)	Oak Ridge	05	RI/FS	FF	03/31/90	4	1999	3	1999
				07	RI/FS	FF	06/05/90	4	1998	4	2005
				09	RI/FS	FF	06/05/90	4	1999	4	2005
				10	RA	FF	02/21/97			3	1998
				12	RI/FS	FF	01/03/90	3	1999		
				13	RI/FS	FF	06/09/90	3	1998	3	1998
				15	RI/FS	FF	09/14/90	1	1999	3	2001
				19	RI/FS	FF	10/25/86	4	1999	3	1999
				21	RI/FS	FF	08/28/92	4	1999		
				22	RI/FS	FF	12/28/90	3	1998	2	1999
				23	RI/FS	FF	01/14/91	3	1999	3	1999
				25	RI/FS	FF	10/25/86	4	1999	3	1999

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE		PRESENT COMPLETION SCHEDULE	
				28	RI/FS	FF	10/01/95	3	1998	3	2000
				29	RI/FS	FF	12/02/92			3	1999
				30	RI/FS	FF	10/04/93	4	1999	2	2001
				31	RI/FS	FF	09/23/93	4	1998	4	2005
				32	RI/FS	FF	09/30/93	2	1999	2	1999
				34	RI/FS	FF	12/02/92	4	1999	3	1999
				35	RI/FS	FF	02/02/94	4	1999	4	2000
				36	RI/FS	FF	03/31/94	4	1999	2	2001
				40	RI/FS	FF	12/22/94	3	1999	3	1999
4	TN	Ross Metals Inc	Rossville	01	RI/FS	F	10/03/96			4	1998
4	TN	Tennessee Products	Chattanooga	01	RI/FS	F	08/14/95	3	1997	4	1999
4	TN	Velsicol Chemical Corp. (Hardeman County)	Toone	01	RA	PRP	05/26/95	2	2027	2	2027
				02	RA	PRP	04/25/97			2	2026
5	IL	Acme Solvent Reclaiming, Inc.	Morristown	06	RA	PRP	09/29/94	1	2000	1	2000
				08	RA	PRP	06/25/97			4	1998
5	IL	Beloit Corp.	Rockton	01	RI/FS	PS	09/27/90	2	1998	1	1999
5	IL	Byron Salvage Yard	Byron	04	RI/FS	EP	12/29/89	1	1997	4	1998
5	IL	Cross Brothers Pail Recycling	Pembroke Township	01	RA	PRP	09/30/93	4	1997	4	1998
5	IL	DuPage County Landfill/Blackwell Forest Preserve)	Warrenville	01	RA	PRP	03/01/96			1	1999
5	IL	Galesburg/Koppers Co.	Galesburg	01	RA	PS	05/05/95	2	1999	4	1999
5	IL	Ilada Energy Co.	East Cape Girardeau	01	RI/FS	PRP	06/19/89	4	1997	1	1999
5	IL	Joliet Army Ammunition Plant (Manufacturing Area)	Joliet	01	RI/FS	FF	06/09/89	4	1997	4	1998
				02	RI/FS	FF	06/09/89	1	1998	4	1998

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE		PRESENT COMPLETION SCHEDULE	
5	IL	Joliet Army Ammunition Plant(Load-Assembly-Packing Area)	Joliet	01 02	RI/FS RI/FS	FF FF	06/09/89 06/09/89			4 4	1998 1998
5	IL	Kerr-McGee (Kress Creek/West Branch of Dupage River)	DuPage County	01	RI/FS	F	09/30/92	3	1997	3	2000
5	IL	Kerr-McGee (Reed-Keppler Park)	West Chicago	01	RI/FS	F	05/20/92	4	1998	1	1999
5	IL	Kerr-McGee (Residential Areas)	West Chicago/DuPage Cnty	01	RI/FS	F	09/17/93	4	1997	4	2001
5	IL	Kerr-McGee (Sewage Treat Plant)	West Chicago	01	RI/FS	F	05/20/92	4	1998	1	1999
5	IL	Lenz Oil Service, Inc.	Lemont	01	RI/FS	PRP	09/29/89	3	1997	4	1998
5	IL	MIG/Dewane Landfill	Belvidere	01 01	RI/FS RI/FS	F PRP	05/01/95 03/29/91	4	1997	1 4	1999 1998
5	IL	NL Industries/Taracorp Lead Smelter	Granite City	01 01 01	RA RA RA	F F F	03/08/91 03/15/93 09/30/97	4 4	1999 1999	1 1 1	2000 2000 2000
5	IL	Ottawa Radiation Areas	Ottawa	01	RI/FS	F	03/26/93	2	1998	4	1998
5	IL	Outboard Marine Corp.	Waukegan	02	RI/FS	PRP	09/26/90	4	1997	4	1998
5	IL	Pagel's Pit	Rockford	01 02	RA RI/FS	PRP PRP	08/08/97 08/13/91			1 1	2002 1999
5	IL	Parsons Casket Hardware Co.	Belvidere	02	RI/FS	S	09/01/96	1	1998	1	1999
5	IL	Sangamo Electric Dump/Crab Orchard National Wildlife Refuge (USDOI)	Cartersville	01 02 04	RA RA RI/FS	FF PRP FF	06/30/93 09/27/95 09/13/91	1 1 1	1997 1998 1998	1 1 4	1999 2000 1999

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE		PRESENT COMPLETION SCHEDULE	
5	IL	Savanna Army Depot Activity	Savanna	02 04	RI/FS RI/FS	FF FF	09/29/89 10/31/91	2	1997	1	1999
5	IL	Southeast Rockford Ground Water Contamination	Rockford	03	RI/FS	S	02/07/96	3	1997	1	1999
5	IN	American Chemical Service, Inc.	Griffith	01 01	RA RA	PRP PRP	04/10/96 06/06/96	3 2	1997 1997	4 4	1998 1998
5	IN	Cam-Or Inc	Westville	01	RI/FS	F	06/30/97			1	2000
5	IN	Continental Steel Corp.	Kokomo	00 01 02 03 04 05 05 06	RI/FS RI/FS RI/FS RI/FS RI/FS RA RI/FS	F S S S S S S	07/01/97 05/25/90 08/26/91 03/27/92 03/27/92 03/27/92 06/23/97 03/27/92			4 4 4 4 4 4 1 4	1998 1998 1998 1998 1998 2000 1998
5	IN	Douglas Road/Uniroyal, Inc., Landfill	Mishawaka	01 02	RA RA	F F	09/30/97 09/27/96	1 1	1999 1998	1 3	2000 2000
5	IN	Fisher-Calo	LaPorte	01 01	RA RA	PRP PRP	09/30/95 07/21/97	2	1998	4 4	2000 2000
5	IN	Fort Wayne Reduction Dump	Fort Wayne	01	RA	PRP	09/20/90	2	1997	4	1998
5	IN	Lemon Land Landfill	Bloomington	01	RI/FS	F*	05/08/95	4	1996	4	1998
5	IN	MIDCO I Site	Gary	01	RA	PRP	07/22/93	2	1997	4	1998
5	IN	Neal's Landfill (Bloomington)	Bloomington	01 01	RI/FS RA	PRP PRP	08/13/96 07/07/88	4 2	1998 1989	1 1	1999 2001
5	IN	Ninth Avenue Dump	Gary	02	RA	PRP	02/14/94	1	1997	4	1998

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE		PRESENT COMPLETION SCHEDULE	
5	IN	Northside Sanitary Landfill, Inc.	Zionsville	01	RA	PRP	09/30/94	2	1999	2	1999
5	IN	Reilly Tar & Chemical Corp. (Indianapolis Plant)	Indianapolis	01 03	RA RA	PRP PRP	09/30/94 09/13/96	4	1998	1 4	1999 1998
5	IN	Seymour Recycling Corp.	Seymour	01	RA	PRP	08/17/87	3	1997	4	2010
5	IN	Tri-State Plating	Columbus	01	RA	F	03/29/91	2	1999	2	1999
5	MI	Albion-Sheridan Township Landfill	Albion	01	RA	PRP	09/04/97			2	2020
5	MI	Allied Paper, Inc./Portage Creek/Kalamazoo River	Kalamazoo	01 02 04 05	RI/FS RI/FS RI/FS RI/FS	PS PS PS PS	12/28/90 12/28/90 12/28/90 12/28/90	3 4 4 1	1998 1997 1997 1999	3 3 2 1	1999 1999 1999 2000
5	MI	Bay City Middlegrounds	Bay City	00	RI/FS	PS	06/18/97			2	1998
5	MI	Bofors Nobel, Inc.	Muskegon	02	RI/FS	S	03/31/90	1	1997	4	1998
5	MI	Chem Central	Wyoming Township	01	RA	PRP	08/18/94	3	1997	3	1999
5	MI	Electrovoice	Buchanan	01 02	RA RI/FS	PRP F	05/24/96 09/15/92	4 3	1997 1997	3 3	2000 1999
5	MI	Forest Waste Products	Otisville	02	RA	PRP	03/26/96	1	1997	4	2000
5	MI	G&H Landfill	Utica	01	RA	PRP	06/02/95	1	1999	1	1999
5	MI	Ionia City Landfill	Ionia	02	RI/FS	PRP	01/29/86	4	1997	1	1999
5	MI	Kysor Industrial Corp.	Cadillac	01	RA	PRP	03/03/95	2	2020	4	2016
5	MI	Liquid Disposal, Inc.	Utica	01	RA	PRP	09/30/92	4	1997	4	2001

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE	PRESENT COMPLETION SCHEDULE
5	MI	Lower Ecorse Creek Dump	Wyandotte	01	RA	F	09/25/97		4 1998
5	MI	Motor Wheel, Inc.	Lansing	01	RA	PRP	06/27/97		4 1998
5	MI	North Bronson Industrial Area	Bronson	02	RI	S	09/16/96		4 1998
5	MI	Northernaire Plating	Cadillac	02	RA	PRP	03/03/95	2 2020	1 2002
5	MI	OTT/Story/Cordova Chemical Co.	Dalton Township	01	RA	F	09/25/91	3 1997	4 1999
				02	RA	F	09/28/92	3 1997	4 1999
				03	RA	S	04/04/95		1 1999
5	MI	Peerless Plating Co.	Muskegon	01	RA	F	09/23/96	1 1999	1 2006
5	MI	Rockwell International Corp. (Allegan Plant)	Allegan	02	RI/FS	PRP	03/31/88	1 1998	2 2000
5	MI	Shiawassee River	Howell	01	RI/FS	S	06/19/87	1 1997	4 1998
5	MI	Sparta Landfill	Sparta Township	01	RI/FS	PRP	09/23/93	1 1998	1 1999
5	MI	Thermo-Chem, Inc.	Muskegon	01	RA	PRP	10/27/94	4 1998	4 1998
				01	RA	PRP	10/27/94	4 1997	4 1998
				01	RA	PRP	10/27/94	1 1997	4 1998
				02	RI/FS	PRP	09/21/87	1 1998	2 1999
5	MI	Velsicol Chemical Corp.(Michigan)	St. Louis	02	RI/FS	EP	02/14/97		2 1999
5	MI	Verona Well Field	Battle Creek	02	RA	PRP	12/28/94	2 1997	4 1998
5	MI	Wurtsmith Air Force Base	Isoco	01	RI/FS	FF	01/03/95	2 1997	2 1997
				01	RA	FF	06/01/88		4 2018
				02	RI/FS	FF	09/26/94	4 1996	4 1996
				03	RI/FS	FF	06/24/94	4 1996	4 1996
				04	RI/FS	FF	01/03/95	2 1997	2 1997
				05	RI/FS	FF	03/15/93	3 1997	3 1997
				06	RI/FS	FF	12/14/94	2 1997	2 1997
				07	RI/FS	FF	08/04/94	4 1996	4 1996
				07	RA	FF	06/30/91		4 2005

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE		PRESENT COMPLETION SCHEDULE	
5	MN	Arrowhead Refinery Co.	Hermantown	01	RA	S	08/15/90	4	2000	4	2000
5	MN	Freeway Sanitary Landfill	Burnsville	01	RI/FS	PS	03/27/86	1	1996	1	1996
5	MN	Joslyn Manufacturing & Supply Co.	Brooklyn Center	03	RA	PS	07/31/95	1	1997	1	2000
5	MN	Long Prairie Ground Water Contamination	Long Prairie	02	RA	S	04/11/91	1	1997	4	2002
				03	RA	S	12/09/93	3	1997	1	1999
5	MN	MacGillis & Gibbs Co./Bell Lumber & Pole Co.	New Brighton	01	RA	S	09/30/94	4	1998	4	2001
				03	RA	F	09/23/96	4	1997	4	1998
				03	RA	F	09/26/97			3	1999
5	MN	Naval Industrial Reserve Ordnance Plant	Fridley	01	RA	FF	06/14/91	4	1999	4	1999
				02	RI/FS	FF	03/22/92	1	1999	1	1999
				03	RI/FS	FF	05/20/96	4	1998	1	1999
5	MN	New Brighton/Arden Hills	New Brighton	07	RA	FF	09/21/95	2	1997	1	1999
5	MN	Oak Grove Sanitary Landfill	Oak Grove Township	02	RA	PRP	08/05/92	3	1996	4	1997
5	MN	Perham Arsenic	Perham	01	RA	F	09/30/96	3	1998	4	1998
5	MN	St. Regis Paper Co.	Cass Lake	01	RA	PS	01/07/87			1	1999
				02	RA	PS	01/07/87			1	1999
5	MN	Waite Park Wells	Waite Park	02	RA	PS	08/12/94	2	1997	4	1999
5	OH	Allied Chemical & Ironton Coke	Ironton	02	RA	PRP	03/03/95	1	1997	4	1999
5	OH	Alsco Anaconda	Gnadenhutten	01	RA	PRP	09/30/91	1	1997	1	1999
5	OH	Buckeye Reclamation	St. Clairsville	01	RA	PRP	02/10/95	1	1999	4	1999
				01	RA	PRP	07/02/97			4	2000

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE		PRESENT COMPLETION SCHEDULE	
5	OH	Dover Chemical Corp.	Dover	01	RI/FS	PRP	08/24/88	2	1997	4	1998
5	OH	Feed Materials Production Center (USDOE)	Fernald	01	RA	FF	04/01/96	1	1998	1	2005
				02	RA	FF	06/10/96			1	2002
				03	RA	FF	09/24/96			2	2006
				04	RA	FF	03/04/96	1	2001	1	2006
				05	RA	FF	09/09/96			1	2006
				06	RA	FF	06/09/95	2	2006	2	2006
5	OH	Fultz Landfill	Jackson Township	01	RA	PRP	06/25/97			4	1998
5	OH	Mound Plant (USDOE)	Miamisburg	02	RI/FS	FF	06/21/93	3	2000	3	2000
				05	RI/FS	FF	02/04/93	4	1997	1	2003
				06	RI/FS	FF	07/17/92	1	2001	1	2001
				09	RI/FS	FF	05/22/92	1	2008	1	2006
5	OH	Nease Chemical	Salem	01	RI/FS	PRP	01/27/88	1	1998	1	1999
5	OH	Ormet Corp.	Hannibal	01	RA	PRP	04/14/97			4	1998
5	OH	Pristine, Inc.	Reading	05	RA	PRP	03/17/97			4	1998
5	OH	Rickenbacker Air National Guard (USAF)	Lockbourne	01	RI/FS	FF	04/15/96	1	1997	1	1999
5	OH	Sanitary Landfill Co. (Industrial Waste Disposal Co.Inc	Dayton	01	RA	PRP	04/16/96	4	1998	4	1998
5	OH	Skinner Landfill	West Chester	02	RA	PRP	06/18/96	1	1998	1	2000
5	OH	Van Dale Junkyard	Marietta	01	RA	PRP	04/02/97			2	2000
5	OH	Wright-Patterson Air Force Base	Dayton	12	RI/FS	FF	08/31/95	2	1998	4	1998
5	WI	Better Brite Plating Co. Chrome and Zinc Shops	DePere	02	RA	F	08/05/91	3	1997	1	1999

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE		PRESENT COMPLETION SCHEDULE	
5	WI	City Disposal Corp. Landfill	Dunn	01	RA	PRP	03/30/95	1	1998	1	2029
5	WI	Delavan Municipal Well #4	Delavan	01	RI/FS	PS	09/28/90	2	1997	1	1999
5	WI	Janesville Ash Beds	Janesville	01	RA	PRP	09/09/96	3	1997	4	2002
5	WI	Janesville Old Landfill	Janesville	01	RA	PRP	09/09/96	3	1997	4	2002
5	WI	Lauer I Sanitary Landfill	Menomonee Falls	01	RA	PS	03/31/97			4	1998
5	WI	Master Disposal Service Landfill	Brookfield	01	RA	PRP	03/29/94	1	1997	3	2027
5	WI	Moss-American (Kerr-McGee Oil Co.)	Milwaukee	01	RA	PRP*	05/19/95	1	2000	1	2025
5	WI	Muskego Sanitary Landfill	Muskego	02	RA	PRP	09/26/97			4	1998
5	WI	National Presto Industries, Inc.	Eau Claire	01	RA	PRP	11/12/93	2	1999	3	1999
5	WI	Oconomowoc Electroplating Co., Inc.	Ashippin	01 02	RA RI/FS	F F	05/12/94 09/20/90	1 1	1999 1997	1 2	1999 2006
5	WI	Penta Wood Products	Daniels	01	RI/FS	F	03/01/94	2	1997	4	1998
5	WI	Sheboygan Harbor & River	Sheboygan	01	RI/FS	PRP	04/11/86	3	1997	2	1999
5	WI	Stoughton City Landfill	Stoughton	01	RA	F	09/27/97			4	1998
5	WI	Wheeler Pit	La Prairie Township	01	RA	PRP	05/21/92	1	1998	4	2003
6	AR	Frit Industries	Walnut Ridge	01	RA	PRP	09/08/83	1	1997	1	1998
6	AR	Midland Products	Ola/Birta	01	RA	S	06/29/90	4	1998	1	1999

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS; FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE		PRESENT COMPLETION SCHEDULE	
6	AR	Popile, Inc.	El Dorado	01	RA	F	09/27/94	1	1999	1	2028
6	AR	Vertac, Inc.	Jacksonville	02	RA	PRP*	09/26/94	4	1997	4	1998
				03	RA	PRP	07/30/97			4	1998
				05	RA	PRP	07/30/97			4	1998
6	LA	American Cresote Works, Inc (Winnfield)	Winnfield	01	RA	F	09/28/93	2	1999	2	1999
6	LA	Combustion, Inc.	Denham Springs	01	RI/FS	PS	10/25/88	3	1997	1	1999
6	LA	Gulf Coast Vacuum Services	Abbeville	01	RA	PRP	06/02/97			1	2006
6	LA	Gulf State Utilities-North Ryan Street	Lake Charles	01	RI/FS	PRP	02/10/97			2	1999
				01	RI/FS	PRP	02/10/97			3	1999
6	LA	Highway 71/72 Refinery	Bossier	00	FS	F	08/08/97			3	1999
				00	RI	F	06/26/97			3	1999
				01	RI/FS	F	09/22/94	2	1997	4	1999
6	LA	Louisiana Army Ammunition Plant	Doyline	03	RI/FS	FF	09/30/93	4	1997	2	1998
				04	RI/FS	FF	04/01/97			3	1998
6	LA	Madisonville Creosote Works	Madisonville	01	FS	F	01/17/97			4	1998
6	LA	Old Inger Oil Refinery	Darrow	01	RA	S	04/25/86	2	1999	2	2005
6	LA	PAB Oil & Chemical Service, Inc.	Abbeville	01	RA	PRP	06/09/97			4	1998
6	LA	Petro-Processors of Louisiana, Inc.	Scotlandville	01	RI/FS	PRP	11/09/92			4	1999
				01	RI/FS	PRP	12/17/92			4	2000
				01	RA	PRP	06/30/87	4	1998	4	1999
6	NM	AT & SF (Clovis)	Clovis	01	RA	PRP	08/07/89	4	1998	2	2000
6	NM	AT&SF (Albuquerque)	Albuquerque	01	RI/FS	PRP	06/06/94	2	1997	4	1998

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE		PRESENT COMPLETION SCHEDULE	
6	NM	Cimarron Mining Corp.	Carrizozo	01 02	RA RA	F* F*	08/13/91 12/20/91	1 2	1998 1997	1 4	1999 1998
6	NM	Espanola Wells	Espanola	01	RI/FS	S	09/09/96	1	1998	3	1999
6	NM	Fruit Avenue Plume	Albuquerque	01	RI/FS	S	09/09/96	1	1998	3	1999
6	NM	Prewitt Abandoned Refinery	Prewitt	01	RA	PRP	01/16/95	4	2002	4	2002
6	NM	Rinchem Co. Inc.	Albuquerque	01	RI/FS	PRP	10/01/95	4	1996	4	1998
6	NM	South Valley	Albuquerque	05 06	RA RA	PRP PRP	04/24/92 06/18/95	2	1997	1 3	2003 2025
6	NM	United Nuclear Corp.	Church Rock	01	RA	PRP	09/12/89	1	1998	4	1999
6	OK	Double Eagle Refinery Co.	Oklahoma City	01	RA	F	09/30/97			3	1999
6	OK	Hardage/Criner	Criner	02 02	RA RA	PRP PRP	01/04/93 05/15/95	3	1997	4 1	2010 1999
6	OK	Mosley Road Sanitary Landfill	Oklahoma City	01 01 01	RA RA RA	PRP PRP PRP	03/16/95 11/06/95 02/15/95	4 4 4	1999 1999 1999	4 4 1	1999 2000 2000
6	OK	National Zinc Corp.	Bartlesville	01	RA	PS	03/15/94	4	1999	4	2000
6	OK	Oklahoma Refining Co. (Pesses Chemical Co.)	Cyril	01	RA	S	07/28/97			1	2003
6	OK	RAB Valley Wood Preserving	Panama	01	RI/FS	F	09/27/94	1	1997	4	1997
6	OK	Sand Springs Petrochemical Complex	Sand Springs	01	RA	PRP	09/16/94	4	1997	4	1998
6	OK	Tar Creek (Ottawa County)	Ottawa County	01 02 02 02	RA RI RI/FS RA	S F F F	05/24/96 03/20/95 08/25/94 09/22/97	1 1 1 1	1998 1997 1998	1 1 4 1	2003 1999 2001 2004

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE		PRESENT COMPLETION SCHEDULE	
6	OK	Tinker Air Force Base	Oklahoma City	03 04	RI/FS RI/FS	FF* FF*	10/16/95 10/16/95	4 2	1997 1997	4 4	1998 1998
6	TX	ALCOA (Point Comfort)/Lavaca Bay	Point Comfort	01	RI/FS	PRP	03/31/94	4	1998	2	1999
6	TX	Bailey Waste Disposal	Bridge City	01	RA	MR	02/19/92	1	1998	4	1998
6	TX	Brio Refining Co., Inc.	Friendswood	01	RA	PRP	06/29/89	4	2002	4	2002
6	TX	French, Ltd.	Crosby	02	RA	PRP	06/28/89	3	1998	3	1998
6	TX	Geneva Industries/Fuhrmann Energy	Houston	02	RA	S	03/31/89	4	1999	4	1999
6	TX	Koppers Co., Inc. (Texarkana Plant)	Texarkana	01	RA	PRP	03/03/96			1	1999
6	TX	Lone Star Army Ammunition Plant	Texarkana	01 02	RI/FS RI/FS	FF FF	06/18/90 06/18/90	1 1	1998 1998	4 3	1998 1998
6	TX	Longhorn Army Ammunition Plant	Karnack	02 02 02 04	RI/FS RA RA RI/FS	FF FF FF FF	10/16/91 10/25/96 02/12/97 10/16/91	2 2	1997 1997	2 4 1 2	2000 1998 1999 2000
6	TX	MOTCO, Inc.	La Marque	01 02	RA RA	PRP PRP	12/30/88 12/13/93	1 1	1998 1998	4 4	1998 1998
6	TX	North Calvacade Street	Houston	01 02	RA RA	S S	09/12/91 09/03/93	4 1	1999 1998	1 1	2009 2000
6	TX	Odessa Chromium #1	Odessa	02	RA	S	09/27/89	2	1998	3	1999
6	TX	Odessa Chromium #2 (Andrews Highway)	Odessa	02 03	RA RA	S PRP	03/30/90 04/18/93	2 2	1997 1998	1 1	1998 1999

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE	PRESENT COMPLETION SCHEDULE
6	TX	Pantex Plant (USDOE)	Pantex Village	01	RI/FS	FF	05/01/91		3 1999
6	TX	Petro-Chemical Systems, Inc. (Turtle Bayou)	Liberty County	04	RA	F	09/26/97		4 1999
6	TX	Sol Lynn/Industrial Transformers	Houston	02	RA	S	09/10/91	4 2004	4 2004
6	TX	South Cavalcade Street	Houston	01	RA	PRP	01/11/95	4 1999	3 2025
6	TX	Sprague Road Ground Water Plume	Odessa	00	RI/FS	F	09/12/97		3 1999
6	TX	Tex-Tin Corp.	Texas City	01	FS	F	03/06/97		1 1998
6	TX	Texarkana Wood Preserving Co.	Texarkana	01	RA	S	05/21/93	4 1999	
				02	RA	F	05/21/93		
6	TX	United Creosoting Co.	Conroe	03	RA	S	09/17/93	4 2000	1 1999
				03	RA	S	09/17/93	1 1999	1 1999
				03	RA	S	09/17/93	4 2000	4 1999
				03	RA	S	09/17/93	1 1999	4 1999
7	IA	Farmers' Mutual Cooperative	Hospers	00	RA	PS	01/09/96		3 2005
7	IA	Iowa Army Ammunition Plant	Middletown	01	RI/FS	FF	09/20/90	3 1998	4 1998
				03	RI/FS	FF	07/22/97		4 1999
7	IA	Mason City Coal Gasification Plant	Mason City	01	RI/FS	PRP	10/01/91	4 1999	4 1999
7	IA	Peoples Natural Gas Co.	Dubuque	01	RA	PRP	03/29/94	4 1998	4 2000
7	IA	Ralston Site	Cedar Rapids	01	RI/FS	PRP	11/27/91	1 1998	1 1999
7	IA	Red Oak City Landfill	Red Oak	01	RA	PRP	08/16/97		4 1998
7	IA	Vogel Paint & Wax	Orange City	01	RA	PS	05/20/91	2 1997	4 2000

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE	PRESENT COMPLETION SCHEDULE
7	IA	Waterloo Coal Gasification Plant	Waterloo	01	RI/FS	PRP	05/30/95	3 1999	1 2000
7	KS	29th & Mead Ground Water Contamination	Wichita	01	RI/FS	PS	09/27/89	1 1999	1 2000
7	KS	57th and North Broadway Streets Site	Wichita Heights	01	RI/FS	F	09/15/94	2 1999	4 1998
7	KS	Ace Services	Colby	01	RI/FS	F	07/23/96	4 1998	3 1999
7	KS	Cherokee County (Tar Creek, Cherokee County)	Cherokee County	07 07	RA RA	F F	08/02/96 09/29/97	4 1998	4 1999 4 2000
7	KS	Doepke Disposal (Holliday)	Johnson County	01	RA	PRP	03/06/95	4 1998	2 1999
7	KS	Fort Riley	Junction City	01 02 03 04	RA RI/FS RI/FS RI/FS	FF FF FF FF	09/29/97 01/22/92 07/01/93 04/11/97	3 1997	4 1998 4 1997 2 1999 4 2002
7	KS	Obee Road	Hutchinson	02	FS	PS	10/17/96		2 2000
7	KS	Pester Refinery Co.	El Dorado	01 02	RA RI/FS	PS PS	11/01/94 12/16/93	2 1999 2 1997	2 2005 4 1998
7	KS	Sunflower Army Ammunition Plant	DeSoto	01	RI/FS	FF	10/01/95	4 1998	4 2008
7	MO	Big River Mine Tailings/St. Joe Minerals	Desloge	01 02	RI/FS RI/FS	PRP PRP	01/29/97 01/29/97		4 1999 2 2001
7	MO	Ellisville Site	Ellisville	02 03 04	RA RA RA	MR EP MR	01/30/96 07/01/97 01/25/96		4 1998 4 1998 4 1998
7	MO	Lake City Army Ammunition Plant (Northwest Lagoon)	Independence	01 01 02 03 04	RI/FS RI/FS RI/FS RI/FS RI/FS	FF FF FF FF FF	08/03/90 08/01/87 04/21/92 06/27/90 09/30/92	1 1999 1 1997 3 1997 3 1999	4 2003 4 2003 4 1998 1 1999 3 1999

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE	PRESENT COMPLETION SCHEDULE
7	MO	Lee Chemical	Liberty	01	RA	PS	12/30/92	4 1999	4 1999
7	MO	Minker/Stout/Romaine Creek (Area 2: Fills 1 & 2)	Imperial	01	RA	MR	09/24/96		4 1998
7	MO	Oronogo-Duenweg Mining Belt	Jasper County	01	RI	F	04/24/90		1 1999
				01	RI/FS	MR	08/02/91	3 1997	1 2000
				02	RA	F	08/02/96	4 2001	4 2001
				03	RA	F	04/01/97		1 1999
				04	FS	PRP	08/01/95		3 1998
7	MO	Shenandoah Stables (once listed as Arena 1: Shenandoah Stables)	Moscow Mills	02	RA	MR	08/26/96	1 1997	4 1998
7	MO	St. Louis Airport/Hazelwood Interim Storage/Futura Coat	St. Louis County	01	RI/FS	FF	06/26/90	1 1999	1 2001
				02	RI/FS	FF	06/26/90		4 1998
7	MO	Syntex Facility	Verona	01	RA	PRP	09/30/89	3 1997	4 1998
7	MO	Times Beach Site	Times Beach	02	RA	MR*	09/30/94	2 1997	4 1998
				02	RA	MR*	03/15/96	1 1997	4 1998
				02	RA	MR*	06/30/97	2 1997	4 1998
7	MO	Valley Park TCE	Valley Park	02	RI/FS	S	04/17/97		2 2000
7	MO	Weldon Spring Quarry (USDOE/Army)	St. Charles County	01	RA	FF	04/10/95		4 2002
				01	RA	FF	09/04/95	4 1999	4 2002
				01	RA	FF	10/26/95		4 2002
				01	RA	FF	04/08/96	4 1999	4 2002
				02	RA	FF	01/01/96	4 1999	4 2002
				02	RA	FF	04/23/97		4 2002
				03	RA	FF	07/12/95		4 2002
				03	RA	FF	07/31/95		4 2002
				03	RA	FF	09/05/95		4 2002
				03	RA	FF	04/08/96		4 2002
				03	RA	FF	12/21/96		4 2002
				05	RI/FS	FF	10/24/91	1 1998	4 1998
				06	RI/FS	FF	05/18/95	4 1998	4 1999

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE	PRESENT COMPLETION SCHEDULE
7	MO	Weldon Springs Ordnance Works	St. Charles County	02	RI/FS	FF	06/30/96	3 1997	4 1998
7	MO	Westlake Landfill	Bridgeton	01 02	RI/FS RI/FS	PRP PRP	03/03/93 12/14/94	4 1997 3 1998	4 1998 1 1999
7	NE	10th Street Site	Columbus	01	RA	F	02/23/95		4 1998
7	NE	Bruno Co-op Association/Associated Press Prop	Bruno	01	RI/FS	PRP	05/17/94	4 1998	4 1998
7	NE	Cleburn Street Well	Grand Island	03 04 05	RA RA RI/FS	F F PRP	09/15/97 09/15/97 06/13/97		4 1998 4 1998 2 1999
7	NE	Cornhusker Army Ammunition Plant	Hall County	01 02	RA RI/FS	FF FF	08/11/97 12/01/94	2 1997	4 1999 2 1998
7	NE	Hastings Ground Water Contamination	Hastings	03 04 05 09 12 13 14 14 15 16 19	RA RA RI/FS RA RI/FS RA RI/FS RI/FS RI/FS RI/FS	PRP FF F PRP F F FF FF PRP FF F	09/28/95 08/12/96 09/30/93 09/27/95 08/31/90 07/25/96 06/15/86 09/30/91 07/19/95 02/11/91 03/22/85	4 1998 4 1998 2 1998 3 1998 2 1998 2 2008 1 2001 1 2001 1 2011 2 2007 4 1999	3 1999 4 1998 4 1999 3 1998 2 1999 2 2008 1 2001 1 2001 1 2011 1 2007 4 1999
7	NE	Nebraska Ordnance Plant (Former)	Mead	01 03	RA RI/FS	FF FF	06/12/96 02/08/95	3 1998 1 1999	3 1998 1 2000
8	CO	Air Force Plant PJKS	Watertown	01	RI/FS	FF	02/07/89	4 1999	4 2000
8	CO	California Gulch	Leadville	00 05 06 07 08 09	RI RI/FS RI/FS RI/FS RI/FS RI/FS	F PRP F PRP PRP PRP	12/18/92 08/29/94 08/26/94 08/26/94 08/26/94 08/26/94	3 1996 4 1996 2 1997 2 1997 3 1997 3 1997	3 1996 4 1998 4 1999 1 1999 2 1999 4 1998

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE	PRESENT COMPLETION SCHEDULE
8	CO	Central City - Clear Creek	Idaho Springs	12	RI/FS	PRP	08/26/94		4 2001
				03	RA	F	09/26/96		4 2007
				03	RA	S	09/29/93	4 1999	4 1999
				03	RA	S	09/29/93	4 1999	4 2000
				03	RA	S	09/29/93	4 1999	4 2000
				03	RA	S	09/29/93	4 1998	4 2000
				03	RA	S	09/29/93	4 1999	4 1998
8	CO	Denver Radium Site	Denver	08	RA	PRP	03/31/93	1 1997	4 1998
8	CO	Eagle Mine	Minturn/Redcliff	01	RA	PS	09/01/88	2 1997	2 1999
8	CO	Lincoln Park	Canon City	01	FS	F	03/11/92	1 1997	4 1998
8	CO	Lowry Landfill	Arapahoe County	00	RA	PRP	01/17/95		4 1999
				01	RA	PRP	08/22/96	4 1997	4 1998
				01	RA	PRP	03/12/97		4 1998
				01	RA	PRP	04/22/97		4 1998
8	CO	Rocky Flats Plant (USDOE)	Golden	04	RI	FF	06/08/90		4 1999
				06	RI	FF	04/19/91		4 1998
				07	RI	FF	06/08/90	4 1996	4 2003
				12	RI	FF	05/08/92		4 1999
				13	RI	FF	05/15/92		4 1999
				16	RI	FF	09/24/91	4 1999	4 1999
8	CO	Rocky Mountain Arsenal	Adams County	03	RA	FF	12/09/96		1 2001
				03	RA	FF	12/09/96		4 1998
				03	RA	FF	12/09/96		4 2008
				03	RA	FF	12/09/96		4 2008
				03	RA	FF	12/09/96		4 2008
				03	RA	FF	12/09/96		4 2000
				03	RA	FF	12/09/96		3 1998
				03	RA	FF	12/09/96		4 1998
				03	RA	FF	08/19/97		2 1999
				03	RA	FF	09/05/97		4 1998
				03	RA	FF	09/26/97		1 2001
				04	RA	FF	03/13/96	2 1997	4 1998
				04	RA	FF	12/09/96		4 2008
				04	RA	FF	12/09/96		4 2008

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE	PRESENT COMPLETION SCHEDULE
				04	RA	FF	12/09/96		4 2008
				04	RA	FF	12/09/96		4 2000
				15	RA	FF	01/01/90	4 1999	4 1999
				26	RA	FF	11/15/91	1 1997	1 1998
				26	RA	FF	04/14/94	1 1998	1 1998
				26	RA	FF	05/01/94	4 1997	1 1998
				27	RA	FF	03/31/95		4 1998
8	CO	Summitville Mine	Rio Grande County	00	RI/FS	F*	05/11/93	4 1998	4 1998
				00	RA	F	06/07/95	3 2001	4 1999
				00	RI/FS	S	09/11/97		3 2001
				01	RA	F	06/07/95	4 1999	4 1999
				01	RA	F	07/11/96	4 2003	4 1998
				02	RA	F	06/07/95	3 1997	4 1999
				03	FS	F	09/21/94	4 1997	1 1999
8	MT	Anaconda Co. Smelter	Anaconda	07	RA	PRP	05/19/94	3 1998	3 2000
8	MT	East Helena Site	East Helena	01	RA	PRP	03/31/92	1 1998	2 2002
				02	RI/FS	PRP	12/30/88		3 1998
8	MT	Idaho Pole Co.	Bozeman	01	RA	PRP	06/29/95	1 2002	1 2002
				01	RA	PRP	08/22/96	1 2007	1 2007
8	MT	Libby Ground Water Contamination	Libby	02	RA	PRP	10/18/89	4 1999	4 2010
8	MT	Milltown Reservoir Sediments	Milltown	02	FS	PRP	02/02/90	3 1997	4 1999
				03	RI/FS	PRP	07/07/95	2 1998	4 1999
8	MT	Montana Pole and Treating	Butte	01	RA	PRP*	04/18/96	1 2014	1 2014
8	MT	Silver Bow Creek/Butte Area	Silver Bow/Deer Lodge	04	RA	PRP	06/30/92	4 1998	2 2002
				07	RA	PRP	04/09/97		1 2022
				12	RA	FE	05/18/94	4 1998	2 2002
8	SD	Ellsworth Air Force Base	Rapid City	11	RA	FF	04/29/97		4 1999

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE	PRESENT COMPLETION SCHEDULE
8	UT	Hill Air Force Base	Ogden	01	RI/FS	FF	06/28/91	3 1998	1 1999
				02	RA	FF	09/30/96	4 1997	4 1999
				03	RA	FF	12/23/96		4 1998
				05	RI/FS	FF	08/13/91	4 1997	1 1999
				07	RA	FF	11/05/96		4 1998
				08	RI/FS	FF	05/03/95	1 1999	2 2002
8	UT	Kennecott (North Zone)	Magna	01	RI/FS	PRP	09/22/93	4 1996	3 1998
				08	RI/FS	PRP	06/16/97		4 1998
8	UT	Kennecott (South Zone)	Copperton	00	RI/FS	PRP	09/22/93	1 1998	3 1998
				02	RI/FS	PRP	07/29/94	2 1998	4 1998
8	UT	Midvale Slag	Midvale	02	RI/FS	F	09/05/97		1 1999
8	UT	Monticello Mill Tailings (USDOE)	Monticello	01	RA	FF	06/07/97		4 1999
				02	RA	FF	05/13/94	3 1998	4 1998
				02	RA	FF	09/20/96	1 1998	2 1999
				03	RI/FS	FF	05/31/91	1 1998	4 1998
8	UT	Monticello Radioactively Contaminated Properties	Monticello	02	RA	FF	11/09/90	4 1997	2 1999
8	UT	Murray Smelter	Murray City	00	FS	FE	01/18/94		1 1998
8	UT	Portland Cement (Kiln Dust 2 & 3)	Salt Lake City	01	RA	S	04/03/95	1 1997	4 1998
8	UT	Richardson Flat Tailings	Summit County	01	RI/FS	PRP	09/29/89	1 1997	3 1999
8	UT	Sharon Steel Corp. (Midvale Tailings/Smelters)	Midvale	01	RA	S	05/18/95	4 1997	1 1999
				02	RA	S	09/29/95	2 1997	1 1999
				02	RA	S	09/20/94	4 1996	4 1999
8	UT	Tooele Army Depot (North Area)	Tooele	04	RI/FS	FF	07/15/93	3 1998	2 1999
				09	RI/FS	FF	01/02/92	3 1998	2 2000

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE	PRESENT COMPLETION SCHEDULE
8	WY	F.E. Warren Air Force Base	Cheyenne	03	RA	FF	11/01/96		4 2000
				03	RA	FF	03/21/97		4 2000
				06	RI/FS	FF	03/09/94	2 1998	4 2000
				07	RI/FS	FF	03/23/94	2 2000	2 2000
				10	RI/FS	FF	01/01/94	2 1997	4 2000
9	AZ	Apache Powder Co.	St. David	01	RA	PRP	02/05/97		4 1998
9	AZ	Hassayampa Landfill	Hassayampa	01	RA	PRP	01/22/96	2 1997	4 1998
9	AZ	Indian Bend Wash Area	Scottsdale/Tmpe/Phnx	02	RA	PRP	06/30/92		4 1998
				02	FS	PRP	06/27/97		1 1999
				03	RI/FS	F	03/14/88	3 1997	4 1998
				05	RA	PRP	03/29/96	2 1997	4 1998
				06	RA	PRP	02/08/94	1 1997	4 1999
				06	RA	PRP	07/11/94	1 1998	4 1998
				07	RI	F	09/26/90	2 1998	4 1998
				07	RA	F	05/31/95	1 1997	4 1998
9	AZ	Luke Air Force Base	Glendale	01	RI/FS	FF	09/27/90	3 1997	1 1999
				02	RA	FF	04/10/95	4 1999	4 1999
9	AZ	Nineteenth Avenue Landfill	Phoenix	01	RA	PS	05/11/95	3 1997	4 1998
9	AZ	Quality Printed Circuits	Phoenix	01	RI/FS	F	06/18/97		4 1998
9	AZ	Williams Air Force Base	Chandler	02	RA	FF	12/30/92	1 1997	3 1999
				04	RI/FS	FF	07/31/95	1 1998	4 1998
				05	RI/FS	FF	09/01/93	3 1997	4 1998
9	AZ	Yuma Marine Corps Air Station	Yuma	01	RI/FS	FF	09/30/91	1 1999	2 1999
9	CA	Aerojet General Corp.	Rancho Cordova	01	RI/FS	PRP	09/08/88	4 1999	4 2003
9	CA	Atlas Asbestos Mine	Fresno County	01	RA	PRP	06/22/94	2 1997	4 1999
9	CA	Barstow Marine Corps Logistics Base (Nebo Area)	Barstow	07	RI/FS	FF	09/28/90		2 2000

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE		PRESENT COMPLETION SCHEDULE	
9	CA	Brown & Bryant, Inc. (Arvin Plant)	Arvin	01	RA	F	09/27/96	1	1999	1	1999
				02	RI/FS	F*	09/30/92	3	1998	3	1999
9	CA	Camp Pendleton Marine Corps Base	San Diego County	03	RI/FS	FF	09/28/90	1	1998	4	1998
9	CA	Castle Air Force Base	Merced	01	RI/FS	FF	07/21/89	2	1998	4	1999
				04	RI/FS	FF	12/16/92	1	1998	1	1999
				05	RA	FF	03/01/97			4	2000
				05	RA	FF	06/02/97			4	2000
9	CA	Concord Naval Weapons Station	Concord	01	RI/FS	FF	02/02/95	4	1998	4	1999
				02	RI/FS	FF	11/21/94	4	1998	4	1999
				03	RI/FS	FF	02/14/95	1	1999	2	1999
9	CA	Cooper Drum Co.	South Gate	01	RI/FS	F	08/12/93	1	1999	1	2002
9	CA	Crazy Horse Sanitary Landfill	Salinas	01	RI/FS	EP	09/18/93	2	1998	2	2002
9	CA	Del Amo Facility	Los Angeles	01	RI/FS	MR	05/07/92	4	1998	1	2000
9	CA	Edwards Air Force Base	Kern County	01	RI/FS	FF	09/26/90	4	2004	4	2004
				02	RI/FS	FF	09/26/90	2	1997	4	1998
				03	RI/FS	FF	12/18/92	1	1999	1	1999
				05	RI/FS	FF	06/21/94	2	2001	2	2001
				07	RI/FS	FF	06/03/94	4	1999	4	1999
				08	RI/FS	FF	07/16/96	3	2003	3	2003
				09	RI/FS	FF	07/16/96	1	2002	1	2002
				10	RI/FS	FF	07/16/96	2	2002	2	2002
				11	RI/FS	FF	07/16/96	1	2003	1	2003
9	CA	El Toro Marine Corps Air Station	El Toro	00	RI/FS	FF	09/28/90			4	1998
				01	RI/FS	FF	09/28/90	4	1997	4	1999
				03	RI/FS	FF	09/28/90	2	1999	3	1999
				04	RI/FS	FF	09/28/90	1	1998	2	1999
				05	RI/FS	FF	09/28/90	1	1998	4	1998
				08	RI	FF	09/28/90			2	2000

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE	PRESENT COMPLETION SCHEDULE
9	CA	Fairchild Semiconductor/Camera & (South San Jose Plant)	South San Jose	01	RA	PRP	12/11/96	1 1998	2 2030
				02	RA	PRP	04/04/95		2 2030
9	CA	Fort Ord	Marina	01	RA	FF	09/29/95		4 1998
				02	RA	FF	05/17/97		2 1999
				07	RA	FF	05/31/97		4 1998
9	CA	Frontier Fertilizer	Davis	01	RI/FS	F	08/02/93	3 1998	3 1999
9	CA	GBF, Inc., Dump	Antioch	01	RI/FS	PS	07/28/93	2 1997	4 1998
9	CA	George Air Force Base	Victorville	02	RI/FS	FF	09/21/90	4 1999	4 1999
				03	RA	FF	04/29/96		4 2000
9	CA	Hunter's Point Annex	San Francisco	03	RI/FS	FF	09/28/90	1 1998	3 1999
				04	RI/FS	FF	10/01/90	1 1998	4 1998
				05	RI/FS	FF	01/22/91	3 1998	2 2000
				06	RI/FS	FF	09/28/90		3 1999
9	CA	Intel Corp. (Mountain View Plant)	Mountain View	01	RA	PRP	12/11/96	2 1998	2 2030
				02	RA	PRP	04/17/95		2 2030
9	CA	Iron Mountain Mine	Redding	03	RA	F	08/23/94	2 1997	1 1999
				05	RI/FS	F	09/18/96		4 2002
				06	RI/FS	F	09/29/96		4 2002
9	CA	J.H. Baxter & Co.	Weed	01	FS	F	08/04/95	1 1997	4 1998
				03	RA	PRP	07/16/92		1 1999
9	CA	Jasco Chemical Corp.	Mountain View	01	RA	PRP	07/31/96	2 1998	1 1999
9	CA	Jet Propulsion Laboratory (NASA)	Pasadena	01	RI/FS	FF	12/23/92	1 2000	1 2000
				02	RI/FS	FF	07/07/93	4 1999	4 1999
				03	RI/FS	FF*	04/29/94	1 2000	1 2000
9	CA	Koppers Co., Inc. (Oroville Plant)	Oroville	01	RA	PRP	09/17/93	1 1998	4 1998
				01	RA	PRP	09/17/96		4 2000

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE	PRESENT COMPLETION SCHEDULE
9	CA	LEHR/Old Compus Landfill (USDOE)	Davis	01	RI/FS	FF	09/30/94	4 1997	4 2002
9	CA	Lawrence Livermore National Laboratory	Livermore	00 06	RI/FS RI	FF FF	06/29/92 06/30/92		1 2001 3 2000
9	CA	Lawrence Livermore National Laboratory (USDOE)	Livermore	01	RA	FF	08/05/92	1 2000	4 2003
9	CA	Lorentz Barrel & Drum Co.	San Jose	01	RA	F	07/04/96	1 1998	4 1998
9	CA	Louisiana-Pacific Corp.	Oroville	01	RA	PRP	12/28/92		4 1998
9	CA	March Air Force Base	Riverside	01 03 04	RI/FS RI/FS RI/FS	FF FF FF	09/27/90 08/06/91 01/24/92	1 1997 3 1997	3 1999 4 1998 4 2000
9	CA	Mare Island Naval Shipyard	Vellejo	00	RI/FS	FF	10/23/90		4 1998
9	CA	Mather Air Force Base (AC & W Disposal Site)	Sacramento	01 01 03 04	RA RA RA RI/FS	FF FF FF FF	07/21/97 09/15/97 06/21/94 09/19/95	3 1997 1 1998	4 2000 4 2000 3 1999 4 1998
9	CA	McClellan Air Force Base (Ground Water Contamination)	Sacramento	01 04 05 06 07 08 09	RA RI RI RI RI RI RI	FF FF FF FF FF FF FF	05/11/95 07/21/89 08/21/90 11/23/92 09/27/96 01/13/93 07/21/89	2 1998	1 1999 2 2000 2 2000 2 2000 2 2000 2 2000 2 2000
9	CA	McColl	Fullerton	01	RA	S	06/11/84	4 1991	4 1998
9	CA	McCormic and Baxter Creosoting Co.	Stockton	01 02 03	RI/FS RI/FS RI/FS	F F F	06/30/92 03/24/93 09/28/94	2 1997 2 1997	3 1999 4 1998 4 1998

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE		PRESENT COMPLETION SCHEDULE	
9	CA	Modesto Ground Water Contamination	Modesto	01	RI/FS	F	03/21/91	1	1997	4	1998
9	CA	Moffett Naval Air Station	Sunnyvale	01	RA	FF	08/19/97			4	1998
				05	RA	FF	08/01/97			4	2000
				06	RI/FS	FF	08/08/89	1	1998	2	1999
				07	RI/FS	FF	08/08/89			1	1999
9	CA	Montrose Chemical Corp.	Torrance	03	RI/FS	F	08/14/97			4	1998
9	CA	National Semiconductor Corp.	Santa Clara	01	RA	PS	09/11/91	1	1998	4	1998
9	CA	Newmark Ground Water Contamination	San Bernadino	01	RA	F	09/18/95	2	1998	4	1998
				02	RA	F	09/05/96	2	1999	2	1999
				03	RI/FS	F	02/09/94	3	1998	4	1999
9	CA	Ralph Gray Trucking Co.	Westminster	02	RI/FS	F	06/19/93	4	1997	1	1999
9	CA	Raytheon Corp.	Mountain View	01	RA	PRP	12/11/96			2	2030
				02	RA	PRP	02/28/95	1	1998	2	2030
9	CA	Sacramento Army Depot	Sacramento	01	RA	FF	06/24/96			4	1999
				02	RA	FF	06/26/96			4	1999
				02	RA	FF	02/16/90	4	1999	4	1999
9	CA	San Fernando Valley (Area 1)	Los Angeles	01	RI/FS	F	08/16/85			3	2000
				01	RI/FS	PRP	02/18/94			4	1998
				01	RI	PRP	02/18/94	1	1997	4	1998
				03	RA	PRP	11/22/93	2	1997	4	1998
				03	RA	PRP	11/22/93	2	1997	4	1998
				03	RA	PRP	09/30/97			2	2000
9	CA	San Fernando Valley (Area 2)	Los Angeles/Glendale	01	RI/FS	S	08/16/85			4	2000
9	CA	San Fernando Valley (Area 3)	Glendale	01	RI/FS	S	08/16/85			3	2000

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE		PRESENT COMPLETION SCHEDULE	
9	CA	San Fernando Valley (Area 4)	Los Angeles	01	RI/FS	S	08/16/85			3	2000
				02	RI/FS	F	09/28/92	4	1997	4	1998
9	CA	San Gabriel Valley (Area 1)	El Monte	00	RI/FS	F	06/13/84	4	2000	4	2000
				01	RI/FS	PRP	03/16/95	4	1998	4	1999
				05	RI/FS	PRP	07/25/95	4	1998	2	2000
9	CA	Selma Treating Co.	Selma	01	RA	F	07/22/92	1	1998	1	1999
				02	RA	F	09/29/92			4	2014
9	CA	Sharpe Army Depot	Lathrop	01	RA	FF	05/30/95	4	1997	4	1999
9	CA	South Bay Asbestos Area (Alviso Dumping Area)	Alviso	01	RA	PRP	10/15/93	1	1998	4	1998
9	CA	South Bay Basin	Silicon Valley	01	RI/FS	F	01/28/87	4	1991	4	1998
9	CA	Stoker Company	Imperial	01	RI/FS	F	05/01/92	4	2000	4	2000
9	CA	Stringfellow	Glen Avon Heights	05	RI/FS	S	10/01/90	1	1998	2	2002
9	CA	Sulphur Bank Mercury Mine	Clear Lake	01	RI/FS	F*	09/28/90	3	1998	4	2000
				02	RI/FS	F*	11/18/91	3	1998	2	2000
				03	RI/FS	EP*	09/28/90	3	1998	2	2000
9	CA	T.H. Agriculture & Nutrition Co. (Thompson-Haywood Chem	Fresno	01	RI/FS	PS	02/06/87	4	1997	4	1998
9	CA	Tracy Defense Depot	Tracy	02	RA	FF	08/12/93	4	1997	4	1998
9	CA	Travis Air Force Base	Solano County	02	RI/FS	FF	04/01/94	3	1997	4	1999
				03	RI/FS	FF	06/10/95	2	1998	4	2003
				04	RI/FS	FF	06/10/95			4	2003
9	CA	Treasure Island Naval Station-	San Francisco	01	RI/FS	FF	07/12/91			1	1999
				02	RI/FS	FF	07/12/91			4	1999

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE	PRESENT COMPLETION SCHEDULE
9	CA	Tustin Marine Corpe Air Station	Tustin	01 03	RI/FS RI/FS	FF FF	08/30/95 07/15/96		2 2000 4 1999
9	CA	United Heckathorn Co.	Richmond	01	RA	PRP	07/23/96		4 1998
9	CA	Watkins-Johnson Co. (Stewart Division)	Scotts Valley	01	RA	PRP	07/16/91	1 1997	1 1999
9	CA	Westinghouse Electric Corp. (Sunnyvale Plant)	Sunnyvale	01	RA	PRP	03/19/97		4 1998
9	HI	Del Monte Corp. (Oahu Plantation)	Honolulu County	01	RI/FS	PRP	09/28/95	1 1998	3 1999
9	HI	Pearl Harbor Naval Complex	Pearl Harbor	01 01 02 03 04 05 06 07 08 09 10 11	RI/FS RI/FS RI/FS RI/FS RI/FS RI/FS RI/FS RI/FS RI/FS RI/FS RI/FS	FF FF FF FF FF FF FF FF FF FF FF	09/30/93 04/26/95 09/30/93 09/30/93 09/30/93 09/30/93 09/30/93 09/30/93 09/30/93 09/30/93 08/23/94 08/01/95	1 1999 4 1999 4 2000 4 2000 1 1999 1 1999 1 1999 1 1999 2 1999 2 1999 2 1999 2 1999	4 2000 4 2000 4 2000 1 1999 1 1999 1 1999 2 1999 2 1999 2 1999 2 1999
9	HI	Schofield Barracks	Oahu	04	RA	FF	06/01/97		4 1998
9	NV	Carson River Mercury Site (Trust Territories PC)	Lyon/Churchill County	01 02	RA RI/FS	F F	09/30/96 09/28/90	3 1998 4 1998	1 1999 1 2002
10	AK	Adak Naval Air Station	Adak	02	RI/FS	FF	05/06/96	4 1998	1 1999
10	AK	Eielson Air Force Base	Fairbanks N Star Borough	01 02 03 04 05 07	RA RA RA RA RA RA	FF FF FF FF FF FF	11/07/95 10/22/95 06/08/96 06/08/96 06/08/96 08/05/96	2 1997 4 1997	4 1999 4 1999 4 1998 4 1998 4 1998 4 1998

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE	PRESENT COMPLETION SCHEDULE
10	AK	Elmendorf Air Force Base	Greater Anchorage Borough	01	RA	FF	05/22/95		4 1998
				02	RA	FF	05/05/95		4 1998
				05	RA	FF	07/15/96		4 1998
				08	RA	FF	08/11/93	4 1997	4 1998
10	AK	Fort Richardson (USARMY)	Anchorage	03	RI/FS	FF	03/06/96	2 1998	4 1998
				04	RI/FS	FF	09/12/96		2 1999
10	AK	Fort Wainright	Fairbanks N Star Borough	02	RA	FF	03/31/97		1 1999
				03	RA	FF	05/30/96		4 1999
				04	RA	FF	06/23/97		4 1998
				05	RI/FS	FF	01/17/95	1 1998	2 1999
10	AK	Ketchikan Pulp Company	Ketchikan	01	RI/FS	PRP	07/21/97		4 1999
				02	RI/FS	PRP	09/19/95		1 1999
10	ID	Blackbird Mine	Lemhi County	01	RI/FS	PRP	11/18/94	3 2000	1 2001
10	ID	Bunker Hill Mining & Metallurgical	Smelterville	01	RA	PRP	09/27/94	1 2000	1 2000
				02	RA	F	04/13/95	1 2002	1 2002
10	ID	Idaho National Engineering Lab (USDOE)	Idaho Falls	02	RA	FF	02/11/94		4 1996
				03	RI/FS	FF	10/10/95	4 1998	4 1999
				07	RI/FS	FF	03/17/95	4 1997	4 1999
				10	RI/FS	FF	04/02/97		1 2000
				11	RI/FS	FF	06/17/97		1 2000
				13	RI/FS	FF	11/14/96		4 2000
				15	RA	FF	11/15/95	2 1998	2 2002
				16	RI/FS	FF	11/06/95	1 1999	4 2003
				18	RA	FF	12/07/94	1 1998	1 2000
				20	RI/FS	FF	08/15/95	1 1999	1 1999
				21	RI/FS	FF	03/22/96	4 1999	1 1999
				25	RI/FS	FF	12/01/93	2 2001	3 2001
10	ID	Kerr-McGee Chemical Corp. (Soda Springs Plant)	Soda Springs	01	RA	PRP	07/17/97		1 2010

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE		PRESENT COMPLETION SCHEDULE	
10	ID	Mountain Home Airforce Base	Mountain Home	03	RA	FF	06/18/96	1	1998	4	1998
10	ID	Pacific Hide & Fur Recycling Co.	Pocatello	02	RA	PRP	08/23/96	2	1999	2	1999
10	OR	Fremont Nat. Forest Uranium Mines (USDA)	Lakeview	02	RI/FS	FF	04/24/95	4	1997	1	1999
10	OR	Gould, Inc.	Portland	01	RA	PRP	03/02/92	4	1998	4	2001
10	OR	McCormick & Baxter Creos. Co. (Portland)	Portland	01	RA	S	06/01/96	4	1998	4	1999
				01	RI/FS	PRP	09/29/95	1	1998	2	1999
				01	RI/FS	F	08/08/96	1	1998	3	1999
				02	RA	S	09/24/97			4	2000
10	OR	Teledyne Wah Chang	Albany	01	RA	PRP	06/23/97			2	1998
				03	RA	PRP	09/29/97			4	1999
10	OR	Umatilla Army Depot (Lagoons)	Hermiston	01	RA	FF	02/15/94	2	1997	4	1998
				02	RA	FF	06/20/94	2	1997	4	1998
				03	RA	FF	09/14/95	1	1999	1	2026
				04	RA	FF	11/06/95	1	1999	1	2001
				06	RA	FF	11/06/95	2	1997	4	1998
				07	RA	FF	06/21/96	2	1997	1	1999
10	WA	Bangor Naval Submarine Base	Silverdale	01	RA	FF	06/17/96	1	1997	3	1998
				02	RA	FF	09/13/94	4	1999	4	1999
				05	RA	FF	12/01/95	1	1998	3	1998
				06	RA	FF	04/16/96			4	1998
				07	RA	FF	02/04/93	1	1997	3	1998
				08	RI/FS	FF	04/04/97			4	1999
10	WA	Bangor Ordnance Disposal	Bremerton	01	RA	FF	03/05/93	2	1997	3	1999
				02	RA	FF	05/01/97			3	1999
10	WA	Boomsnub/Airco	Vancouver	01	RI/FS	F	03/27/95	1	1998	3	1999

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE	PRESENT COMPLETION SCHEDULE
10	WA	Colbert Landfill	Colbert	01	RA	MR	08/28/89	4 1998	4 1998
10	WA	Commencement Bay, Near Shore/Tide Flats	Pierce County	01	RA	PS	06/30/89		4 1995
				04	RA	PS	11/12/91	1 1998	1 2000
				05	RA	PS	01/16/90	1 1998	1 2000
				06	RA	PS	12/17/93	1 1998	1 1999
				07	RA	PS	04/11/91	1 1998	1 2000
				09	RA	PS	07/31/92	4 1997	1 1999
				11	RA	PRP	06/25/93	2 1998	4 1998
				19	FS	PRP	10/04/94	2 1997	3 2000
				22	RA	PRP	12/21/93	4 2001	3 2002
10	WA	Fairchild Air Force Base (4 Waste Area)	Spokane County	02	RA	FF	03/07/94	3 1997	4 1998
				03	RA	FF	09/17/96	1 1997	4 1998
				04	RI	FF	05/31/95		2 1999
10	WA	Fort Lewis Logistics Center	Tillicum	01	RA	FF	01/15/92	1 1998	4 1998
				02	RA	FF	02/01/96	2 1999	2 1999
				03	RA	FF	01/11/96	2 1997	4 1998
10	WA	Hanford 100-Area (USDOE)	Benton County	02	RA	FF	06/14/96		4 2003
				03	RA	FF	11/25/96		3 2001
				04	RA	FF	07/15/96	2 1999	3 2001
				07	RA	FF	09/23/97		4 2003
				08	RI/FS	FF	10/12/90	3 1997	1 1999
				09	RI/FS	FF	10/12/90	3 1997	1 1999
				13	RI/FS	FF*	06/30/93	2 1997	1 1999
				17	RI/FS	FF	08/17/95		1 1999
				27	RI/FS	FF	04/20/95		1 1999
				28	RI/FS	FF	05/24/93		1 2000
10	WA	Hanford 200-Area (USDOE)	Benton County	01	RI/FS	FF	05/15/89	4 1999	4 1999
				02	RI/FS	FF	08/31/92	2 1997	2 2001
				11	RI/FS	FF	01/31/94	2 1997	2 2000
				12	RA	FF	03/31/97		1 2004
				13	RA	FF	08/26/96	4 2001	4 2001

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX A

STATUS OF REMEDIAL INVESTIGATIONS, FEASIBILITY STUDIES,
AND REMEDIAL ACTIONS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	ACTIVITY	LEAD	FUNDING START	PREVIOUS COMPLETION SCHEDULE	PRESENT COMPLETION SCHEDULE
10	WA	Hanford 300-Area (USDOE)	Benton County	01 03	RA RI/FS	FF FF	07/07/97 03/31/95		2 2001 2 2000
10	WA	Harbor Island (Lead)	Seattle	01 08	RA RI/FS	PRP F	08/26/97 09/07/88	4 1997	2 1999 2 1999
10	WA	Jackson Park Housing Complex (USNAVY)	Kitsap County	01 02	RI/FS RI/FS	FF FF	07/01/95 07/01/95	2 1997 3 1997	3 1998 1 1999
10	WA	Naval Undersea Warfare Engineering Stn. (4 Waste Area)	Keyport	01	RI/FS	FF	07/17/90	4 1997	4 1998
10	WA	Northwest Transformer (South Harkness St.)	Everson	01	RA	PRP	09/30/92	1 1997	2 2002
10	WA	Pacific Sound Resources	Seattle	01 02	RI/FS RI/FS	PRP F	09/29/94 05/18/95	2 1998 2 1999	2 1999 2 1999
10	WA	Palermo Well Field Ground Water Contam.	Tumwater	01	RI/FS	F	06/05/97		4 1999
10	WA	Puget Sound Naval Shipyard Complex (USNAVY)	Bremerton	02 04	RI/FS RA	FF FF	01/26/94 06/18/97	1 1998	2 1999 1 1999
10	WA	Queen City Farms	Maple Valley	01	RA	PRP	07/27/95	3 1999	3 1999
10	WA	Tulalip Landfill	Marysville	01	RI/FS	PRP	08/12/93	3 1997	3 1998
10	WA	Vancouver Water Station #1 Contamination	Vancouver	01	RI/FS	F	09/16/97		4 1998
10	WA	Vancouver Water Station #4 Contamination	Vancouver	01	RI/FS	F	04/02/92	4 1998	3 1999
10	WA	Wycoff Co./Eagle Harbor	Bainbridge Island	01 02 03 04 04	RA RI/FS RA RA RA	F F PRP F F*	07/07/95 09/16/92 04/25/97 02/15/95 07/03/96	1 1999 1 1998	1 1999 2 1999 4 1999 4 2000 2 1999

This page intentionally left blank

Appendix B

Remedial Designs in Progress on September 30, 1997

This appendix lists the remedial designs in progress at the end of FY97 and their estimated completion schedule. Activities at multiple operable units, as well as first and subsequent activities, are listed.

- **RG**—EPA region in which the site is located.
- **ST** — State in which the site is located.
- **Site Name** — Name of the site, as listed on the National Priorities List (NPL).
- **Location** — Location of the site, as listed on the NPL.
- **Operable Unit** — Operable unit at which the corresponding remedial activity is occurring; a single site may include more than one operable unit.
- **Lead** — The entity leading the activity, as follows:

EP: Fund-financed with EPA employees performing the project, not contractors;

F: Fund-financed and federal-lead by the Superfund remedial program;

FE: EPA enforcement program-lead;

FF: Federal facility-lead;

MR: Mixed funding; monies from both the Fund and potentially responsible parties (PRPs);

PRP: PRP-financed and conducted;

PS: PRP-financed work performed by the PRP under a state order (may include federal financing or federal oversight under an enforcement document);

S: State-lead and Fund-financed; and

SE: State enforcement-lead (may include federal financing).

Remaining terms used in the CERCLA Information System (CERCLIS) database, **O** (other), **SN** (state-lead and financed, no Fund money), and **SR** (state-ordered PRP response activities), are excluded from this status report because they do not include federal financing.

- **Funding Start** — The date on which funds were allocated for the activity.
- **Present Completion Schedule** — The quarter and fiscal year of the planned completion date for the activity.

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX B

STATUS OF REMEDIAL DESIGNS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	LEAD	FUNDING START	PRESENT COMPLETION SCHEDULE	
1	CT	Linemaster Switch Corp.	Woodstock	01	PRP	11/03/94	2	2000
1	CT	Yaworski Waste Lagoon	Canterbury	01	F	12/13/96	2	1999
1	MA	Charles-George Reclamation Trust Landfill	Tyngsborough	03	F	07/31/92	4	1996
1	MA	Iron Horse Park	Billerica	02	PRP	01/06/94	3	1999
1	MA	Nyanza Chemical Waste Dump	Ashland	02 03	F F	04/08/92 07/27/93	4 4	2000 1998
1	MA	Otis Air National Guard Base/Camp Edwards	Falmouth	01	FF	09/25/95	4	1998
1	MA	Silresim Chemical Corp.	Lowell	01	F	01/26/95	4	1996
1	MA	Sullivan's Ledge	New Bedford	02	PRP	04/05/93	2	1999
1	MA	Wells G&H	Woburn	01	F*	01/31/97	1	2000
1	ME	O'Connor Co.	Augusta	02	PRP	03/31/91	2	2001
1	NH	Dover Municipal Landfill	Dover	01	PRP	01/22/92	3	2001
1	NH	Ottati & Goss	Kingston	02 04	S F	03/16/89 09/20/90	1 2	1996 1999
1	NH	Savage Municipal Water Supply	Milford	02	PRP	04/28/94	4	1999
1	NH	Somersworth Sanitary Landfill	Somersworth	01	PRP	11/08/95	2	1999
1	RI	Central Landfill	Johnston	01 01	PRP PRP	05/23/96 05/23/96	3 3	1997 2000
1	RI	Davis Liquid Waste	Smithfield	02 03	F PRP	07/11/88 11/26/96	4 3	2003 1999

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX B

STATUS OF REMEDIAL DESIGNS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	LEAD	FUNDING START	PRESENT COMPLETION SCHEDULE
1	RI	Picillo Farm	Coventry	02	PRP*	01/25/95	4 1998
1	VT	Parker Landfill	Lyndon	01	PRP	12/03/96	4 1998
2	NJ	Asbestos Dump	Millington	01	F	09/30/92	4 1998
2	NJ	Brook Industrial Park	Bound Brook	01 01 01	F F F	08/25/97 08/28/97 09/02/97	2 2000 4 1999 4 1998
2	NJ	Cinnaminson Township (Block 702) Ground Water Contamination	Cinnaminson Township	01	PRP	07/09/91	4 1998
2	NJ	Combe Fill South Landfill	Chester Township	01	S	06/26/87	4 1999
2	NJ	Cosden Chemical Coatings Corp.	Beverly	02 03	F F	09/27/94 04/28/95	4 1998 4 1999
2	NJ	DeRenewal Chemical Co.	Kingwood Township	01	F	09/30/89	1 2000
2	NJ	Diamond Alkali Co.	Newark	01	PRP	12/14/89	1 1999
2	NJ	Dover Municipal Well 4	Dover Township	01	F	07/06/93	4 2000
2	NJ	Ellis Property	Evesham Township	02	S	09/30/93	3 1998
2	NJ	Fried Industries	East Brunswick Township	01	F	09/30/94	4 1998
2	NJ	Glen Ridge Radium Site	Glen Ridge	03	F	09/26/90	1 1998
2	NJ	Global Sanitary Landfill	Old Bridge Township	01	PS	11/15/93	4 1999
2	NJ	Hercules, Inc. (Gibbstown Plant)	Gibbstown	03	PS	10/29/96	2 2000
2	NJ	Imperial Oil Co., Inc./Champion Chemicals	Morganville	01 02	S S	09/30/91 03/31/93	2 1999 2 1999
2	NJ	JIS Landfill	Jamesburg/S. Brunswick	01	PS	06/17/97	3 1999

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX B

STATUS OF REMEDIAL DESIGNS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	LEAD	FUNDING START	PRESENT COMPLETION SCHEDULE
2	NJ	Metaltec/Aerosystems	Franklin Borough	02	F	03/29/91	4 1999
2	NJ	Montclair/West Orange Radium Site	Montclair/West Orange	03	F	09/26/90	2 1999
2	NJ	Myers Property	Franklin Township	01	PRP	05/12/92	4 1998
2	NJ	NL Industries	Pedricktown	01	PRP	06/10/96	2 2000
2	NJ	Naval Weapons Station	Colts Neck	01	FF	08/29/97	1 1998
2	NJ	PJP Landfill	Jersey City	01	PS	06/02/97	1 1999
2	NJ	Pepe Field	Boonton	01	F	09/30/91	2 1998
2	NJ	Price Landfill	Pleasantville	02	S	07/01/95	2 1999
2	NJ	Rockaway Borough Well Field	Rockaway Township	02	PRP	07/14/94	4 1999
2	NJ	Rockaway Township Wells	Rockaway	01	PS	03/13/96	4 1999
2	NJ	Roebing Steel Co.	Florence	03 04 04	F F F	09/25/91 06/17/97 06/17/97	4 1998 1 1999 1 2000
2	NJ	Sharkey Landfill	Parsippany/Troy Hills	01	PRP	10/18/94	4 1998
2	NJ	Sheild Alloy Corp.	Newfield Borough	01	PS	10/22/96	4 1999
2	NJ	U.S. Radium Corp.	Orange	01 02	F F	09/30/93 09/29/95	4 2001 4 1997
2	NJ	Vineland Chemical Co., Inc.	Vineland	01 02	F F	09/30/89 10/02/89	4 1998 1 1997
2	NJ	Waldick Aerospace Devices, Inc.	Wall Township	02	F	06/28/91	4 1999
2	NJ	Woodland Route 532 Dump	Woodland Township	02	PS	08/30/90	2 1999
2	NJ	Woodland Route 72 Dump	Woodland Township	02	PS	08/31/91	2 1999

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX B

STATUS OF REMEDIAL DESIGNS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	LEAD	FUNDING START	PRESENT COMPLETION SCHEDULE
2	NY	Batavia Landfill	Batavia	01	PRP	10/27/95	2 1999
2	NY	Byron Barrel & Drum	Byron	01	PRP	09/25/90	1 2000
				02	PRP	09/25/90	1 2000
				02	PRP	09/25/90	1 2000
2	NY	Carrol & Dubies Sewage Disposal	Port Jervis	01	PRP	02/05/96	4 1998
2	NY	Claremont Polychemical	Old Bethpage	05	F	09/30/92	1 2000
2	NY	Colesville Municipal Landfill	Town of Colesville	02	PS	04/01/91	1 2000
2	NY	Cortese Landfill	Vil. of Narrowsburg	03	PRP	09/28/95	1 2001
2	NY	GCL Tie & Treating Inc.	Village of Sidney	02	F	05/17/95	4 1999
2	NY	General Motors (Central Foundry Division)	Massena	01	PRP	01/01/96	4 1998
				02	PRP	03/15/94	4 1999
				02	PRP	03/15/94	4 1999
2	NY	Hertel Landfill	Plattekill	02	PRP	11/23/92	1 2001
2	NY	Hooker (South Area)	Niagara Falls	01	PRP	12/15/94	2 1999
2	NY	Hooker Chemical/Ruco Polymer Corp.	Hicksville	01	PRP	12/28/94	4 1996
2	NY	Niagra Mohawk Power Corp. (Saratoga Springs Plant)	Saratoga Springs	01	PRP	11/06/96	2 1999
2	NY	Olean Well Field	Olean	02	F	09/30/96	4 1998
2	NY	Pfol Brothers Landfill	Cheektowaga	01	PS	10/17/94	2 1999
2	NY	Port Washington Landfill	Port Washington	04	PRP	08/02/96	3 1999

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX B

STATUS OF REMEDIAL DESIGNS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	LEAD	FUNDING START	PRESENT COMPLETION SCHEDULE
2	NY	Rowe Industries Ground Water Contamination	Noyack/Sag Harbor	02	F	01/26/94	4 1998
2	NY	Sidney Landfill	Sidney	01	PRP	05/09/97	2 1999
				02	PRP	05/09/97	1 2000
2	NY	Solvent Savers	Lincklaen	00	PRP	07/02/91	1 2000
				01	PRP	07/02/91	1 2000
				02	PRP	07/29/91	1 2000
				03	PRP	07/02/91	1 2000
2	PR	Juncos Landfill	Juncos	01	PRP	12/21/92	4 1998
2	VI	Tutu Wellfield	Tutu	01	F	09/30/97	1 2000
				01	F	09/30/97	1 2000
3	DE	Dover Air Force Base	Dover	05	FF	09/26/95	2 1998
				10	FF	09/26/95	3 1998
				11	FF	09/26/95	3 1998
				12	FF	09/26/95	3 1998
3	DE	Dover Gas Light Co.	Dover	01	PRP	06/16/95	4 1998
				02	PRP	06/16/95	1 1999
3	DE	E.I. Du Pont de Nemours & Co.(Newport Pigment plant LdF	Newport	04	PRP	05/31/94	2 2000
				06	PRP	05/31/94	3 1999
				07	PRP	05/31/94	4 1998
				08	PRP	05/31/94	3 1999
3	DE	Standard Chlorine of Delaware, Inc.	Delaware City	01	PRP	07/01/96	3 2000
3	MD	Aberdeen Proving Ground (Edgewood Area)	Edgewood	09	FF	04/04/97	3 1998
				11	FF	11/14/96	1 1998
3	MD	Bush Valley Landfill	Abingdon	01	PRP	09/26/97	2 2000
3	PA	AIW Frank/Mid-County Mustang	Exton	01	F	08/12/96	4 1999
				02	F	08/22/96	3 1998
3	PA	Bally Ground Water Contamination	Bally Borough	02	PRP	07/18/91	2 1999

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX B

STATUS OF REMEDIAL DESIGNS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	LEAD	FUNDING START	PRESENT COMPLETION SCHEDULE	
3	PA	Bell Landfill	Terry Township	01	PRP	02/11/97	3	1998
3	PA	Berkley Products Co. Dump	Denver	01	F	09/11/96	1	1999
3	PA	Brown's Battery Breaking	Shoemakersville	02	PRP	06/03/96	1	1999
3	PA	Centre County Kepone	State College Boro	01	PRP	03/14/97	2	1999
3	PA	Commodore Semiconductor Group	Lower Providence Townsh	02	PRP	10/01/93	2	1999
3	PA	Crossley Farm	Hereford Township	01	F	09/30/97	4	1998
3	PA	CryoChem, Inc.	Worman	03	F*	12/31/91	4	1998
3	PA	Hunterstown Road	Straban Township	01	F	09/12/94	4	1999
3	PA	MW Manufacturing	Valley Township	01	PRP	06/01/93	4	1999
3	PA	North Penn-Area 6 (J.W. Rex/Allied Paint/Keystone hydra	Lansdale	01	F	09/19/96	4	1998
3	PA	Novak Sanitary Landfill	South Whitehall Twp	01	PRP	07/30/95	2	1999
3	PA	Ohio River Park	Neville Island	01	PRP	09/23/97	4	1998
3	PA	Paoli Rail Yard	Paoli	02	PRP	04/29/97	1	1999
3	PA	Recticon/Allied Steel Corp.	East Coventry Twp.	01 02 03	PRP PRP PRP	05/11/94 05/11/94 05/11/94	4 2 3	1998 1999 1998
3	PA	Saegerton Industrial Area	Saegertown	01	PRP	10/18/93	2	1998
3	PA	Shriver's Corner	Straban Township	01	PRP	08/08/97	2	1999

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX B

STATUS OF REMEDIAL DESIGNS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	LEAD	FUNDING START	PRESENT COMPLETION SCHEDULE
3	PA	Whitmoyer Laboratories	Jackson Township	03 05	PRP PRP	03/05/92 03/05/92	4 1999 4 1998
3	PA	William Dick Lagoons	West Caln Township	02 03	PRP PRP	07/10/95 07/10/95	2 2000 3 1999
3	VA	Arrowhead Associates/Scovill Corp.	Montross	01 02	PRP PRP	01/03/97 01/03/97	3 1999 3 1999
3	VA	Atlantic Wood Industries, Inc.	Portsmouth	01	F	02/20/97	4 2000
3	VA	H & H Inc., Burn Pit	Farrington	02	PRP	10/04/96	3 1999
3	VA	L.A. Clarke & Son	Spotsylvania County	04	PRP	03/03/90	1 1999
3	VA	Saltville Waste Disposal Ponds	Saltville	03	PRP	07/29/97	2 2000
4	AL	Ciba-Geigy Corp. (McIntosh Plant)	McIntosh	03	PRP	05/31/96	4 1998
4	AL	Interstate Lead Co. (ILCO)	Leeds	02 03	PRP PRP	09/30/96 09/30/96	4 1998 4 1998
4	AL	Olin Corp. (McIntosh Plant)	McIntosh	01	PRP	07/26/96	2 1998
4	AL	Stauffer Chemical Co. (Clemoyne Plant)	Axis	01 03	PRP F	11/20/92 03/08/94	1 1997 4 1998
4	AL	Stauffer Chemical Co. (Cold Creek Plant)	Bucks	02 03	PRP F	09/25/96 03/08/94	4 1998 4 1998
4	FL	Agrico Chemical Co.	Pensacola	02	PRP	04/03/97	4 1998
4	FL	Anodyne, Inc.	North Miami Beach	01	F	08/12/94	3 2000
4	FL	Cabot/Koppers	Gainesville	01	PRP	04/12/91	* 20
4	FL	Cecil Field Naval Air Station	Jacksonville	07	FF	01/23/97	2 1998
4	FL	Coleman-Evans Wood Preserving	Whitehouse	01	F	09/28/90	4 1994

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX B

STATUS OF REMEDIAL DESIGNS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	LEAD	FUNDING START	PRESENT COMPLETION SCHEDULE
		Co.		01	F	09/25/97	1 1999
4	FL	Helena Chemical Co.	Tampa	01	PRP	12/26/96	2 1999
4	FL	Homestead Air Force Base	Homestead	06	FF	06/27/95	4 1997
4	FL	Peak Oil Co./Bay Drum Co.	Tampa	01	PRP	12/07/95	2 1999
				02	PRP	12/07/95	2 1999
				03	PRP	12/07/95	2 1999
4	FL	Reeves Southeast Galvanizing Corp.	Tampa	02	PRP	11/30/94	4 1998
4	FL	Stauffer Chemical Co. (Tampa Plant)	Tampa	01	PRP	05/17/96	2 1999
4	FL	Tower Chemical Co.	Clermont	01	F	11/20/87	1 2010
				01	F	09/30/97	3 1999
4	FL	Whitehouse Oil Pits	Whitehouse	01	F	06/26/85	4 1993
				01	PRP	04/27/93	2 1996
4	FL	Zellwood Ground Water Contamination	Zellwood	02	F	07/26/96	4 1999
4	GA	T.H. Agriculture & Nutrition Co.	Albany	02	PRP	06/19/97	4 1998
4	GA	Woolfolk Chemical Works, Inc.	Fort Valley	02	PRP	09/29/95	4 1998
4	KY	Maxey Flats Nuclear Disposal	Hillsboro	01	PRP	04/18/96	1 1998
4	KY	Paducah Gaseous Diffusion Plant (USDOE)	Paducah	05	FF	07/03/97	1 1998
4	NC	Aberdeen Pesticide Dumps	Aberdeen	03	PRP	08/25/94	2 1998
4	NC	Camp Lejeune Military Reservation (Marine Corp Base)	Onslow County	13	FF	08/27/97	3 1998
4	NC	FCX, Inc. (Washington Plant)	Washington	01	F	02/23/94	2 1998
4	NC	General Electric Co/Shepherd	East Flat	01	PRP	09/30/96	4 1998

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX B

STATUS OF REMEDIAL DESIGNS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	LEAD	FUNDING START	PRESENT COMPLETION SCHEDULE
		Farm	Rock				
4	NC	National Starch & Chemical Corp.	Salisbury	03 04	PRP PRP	09/29/95 09/29/95	4 1998 4 1999
4	NC	North Belmont PCE Site	North Belmont	01	F	09/05/97	3 1999
4	NC	North Carolina State University (Lot 86, Farm Unit #1)	Raleigh	01	PRP	09/25/97	1 1999
4	NC	Potter's Septic Tank Service Pits	Macon	01	F	06/21/96	2 1999
4	SC	Savannah River Site (USDOE)	Aiken	16 17 29	FF FF FF*	07/03/97 07/30/97 02/16/95	2 1998 2 1998 4 1996
4	SC	Townsend Saw Chain Co.	Pontiac	01	PRP	05/02/97	4 1998
5	IL	NL Industries/Taracorp Lead Smelter	Granite City	01	F	12/31/95	1 1999
5	IL	Pagel's Pit	Rockford	01	PRP	12/14/92	1 2000
5	IL	Woodstock Municipal Landfill	Woodstock	01	PRP	09/02/94	2 1999
5	IN	American Chemical Service, Inc.	Griffith	01	PRP	09/30/94	3 1999
5	IN	Conrail Rail Yard (Elkhart)	Elkhart	02	PRP	06/14/95	1 2000
5	IN	Galen Meyer's Dump/Drum Salvage	Osceola	01	S	04/01/97	4 1998
5	IN	Himco, Inc., Dump	Elkhart	00	F	04/13/95	3 1999
5	IN	Lakeland Disposal Service, Inc.	Claypool	01	PRP	05/25/94	1 1999

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX B

STATUS OF REMEDIAL DESIGNS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	LEAD	FUNDING START	PRESENT COMPLETION SCHEDULE	
5	IN	Neal's Dump (Spencer)	Spencer	01	PRP	08/22/85	4	1998
5	MI	Cannelton Industries, Inc.	Sault Sainte Marie	01	PRP	05/10/93	4	1998
5	MI	Duell & Gardner Landfill	Dalton Township	01	PRP	07/29/94	4	1999
5	MI	K & L Avenue Landfill	Oshtemo Township	01	PRP	09/18/92	1	1999
5	MI	Metamora Landfill	Metamora	02	PRP	04/26/91	3	1999
5	MI	Spartan Chemical Co.	Wyoming	02	S	09/28/93	3	1999
5	MI	Torch Lake	Houghton County	01	F	09/01/94	4	1999
5	MN	Ritari Post & Pole	Sebekka	01	S	11/14/94	4	1998
5	OH	Allied Chemical & Ironton Coke	Ironton	02	PRP	07/23/93	2	1999
5	OH	Feed Materials Production Center (USDOE)	Fernald	01	FF	04/25/95	2	1999
				02	FF	08/07/95	4	1998
				03	FF	09/24/96	4	2005
				04	FF	02/07/95	1	2003
				05	FF	03/29/96	2	2002
				06	FF	09/19/94	4	2005
5	OH	Fields Brook	Ashtabula	01	PRP	03/22/89	4	1998
5	OH	Industrial Excess Landfill	Uniontown	01	F	09/29/89	1	1999
				01	F	09/29/89	4	1998
5	OH	Pristine, Inc.	Reading	05	PRP	12/10/94	4	1998
5	WI	Better Brite Plating Co. Chrome and Zinc Shops	DePere	01	S	09/30/96	4	1998
5	WI	City Disposal Corp. Landfill	Dunn	01	PRP	04/23/93	1	1999

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX B

STATUS OF REMEDIAL DESIGNS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	LEAD	FUNDING START	PRESENT COMPLETION SCHEDULE
5	WI	Moss-American (Kerr-McGee Oil Co.)	Milwaukee	01	PRP	08/31/95	1 1999
5	WI	Refuse Hideaway Landfill	Middleton	01	PRP	04/08/97	2 1999
6	AR	Popile, Inc.	El Dorado	01	F	02/19/92	1 1999
6	AR	South 8th Street Landfill	Jacksonville	02	PRP	03/01/96	4 1998
6	OK	Tar Creek (Ottawa County)	Ottawa County	02	F	03/14/96	2 1999
6	TX	Air Force Plant #4 (General Dynamics)	Fort Worth	01	FF	08/07/97	1 1999
6	TX	Crystal Chemical Co.	Houston	01	PRP	03/31/92	4 1998
6	TX	RSR Corp.	Dallas	03 04 05	F F F	07/15/93 05/10/93 05/10/93	2 1999 3 1997 2 1999
6	TX	Sheridan Disposal Service	Hempstead	01 02	PRP PRP	12/29/89 03/29/90	4 1999 4 1999
7	IA	Mid-America Tanning Co.	Sergeant Bluff	01	F	05/08/97	4 1998
7	KS	29th & Mead Ground Water Contamination	Wichita	02	PRP	05/18/94	4 1998
7	KS	Cherokee County (Tar Creek, Cherokee County)	Cherokee County	07	F	04/17/97	4 1999
7	MO	Bee Cee Manufacturing Co.	Malden	01	S	08/02/96	4 1998
7	MO	Missouri Electric Works	Cape Girardeau	01	MR	09/26/94	1 1999
7	MO	Quality Plating	Sikeston	01	S	08/02/96	4 1998
7	MO	Valley Park TCE	Valley Park	01	PS	05/16/96	4 1998
7	MO	Weldon Springs Ordnance Works	St. Charles County	01	FF	04/04/94	3 1998

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX B

STATUS OF REMEDIAL DESIGNS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	LEAD	FUNDING START	PRESENT COMPLETION SCHEDULE	
7	NE	Hastings Ground Water Contamination	Hastings	01	PRP	04/27/93	1	1999
				02	PRP	10/01/92	2	2000
7	NE	Nebraska Ordnance Plant (Former)	Mead	02	FF	05/06/97	3	1998
7	NE	Sherwood Medical Co.	Norfolk	01	PRP	11/07/96	4	1998
				02	PRP	11/07/96	4	1998
8	CO	Central City - Clear Creek	Idaho Springs	03	S	09/30/91	4	2000
8	CO	Chemical Sales Co.	Commerce City	04	F	05/09/94	4	1998
8	CO	Eagle Mine	Minturn/Redcliff	01	PRP	06/08/94	4	1998
8	CO	Lowry Landfill	Arapahoe County	01	PRP	02/19/97	4	1998
8	CO	Rocky Mountain Arsenal	Adams County	03	FF	06/12/96	3	1998
				03	FF	05/16/97	1	1999
				03	FF	09/19/97	3	1998
8	CO	Summitville Mine	Rio Grande County	04	F	03/15/95	4	1998
8	MT	Anaconda Co. Smelter	Anaconda	16	PRP	09/19/97	3	1998
8	MT	Silver Bow Creek/Butte Area	Silver Bow/Deer Lodge	03	PRP	03/06/97	2	2008
8	UT	Hill Air Force Base	Ogden	06	FF	06/19/97	4	1998
8	UT	Midvale Slag	Midvale	02	F	11/14/95	1	1999
8	UT	Monticello Mill Tailings (USDOE)	Monticello	01	FF	01/12/93	2	1999
				01	FF	01/26/97	2	1999
				02	FF	05/12/92	2	1999
8	UT	Ogden Defense Depot	Ogden	04	FF	03/29/96	4	1997

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX B

STATUS OF REMEDIAL DESIGNS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	LEAD	FUNDING START	PRESENT COMPLETION SCHEDULE	
8	WY	Baxter/Union Pacific Tie Treating	Laramie	01	PRP	02/15/87	1	1993
8	WY	F.E. Warren Air Force Base	Cheyenne	03	FF	02/21/96	4	1998
9	AZ	Phoenix-Goodyear Airport Area	Goodyear	01	PRP	01/04/91	4	1998
9	AZ	Williams Air Force Base	Chandler	03	FF	06/18/96	4	1998
9	CA	Castle Air Force Base	Merced	05	FF	04/14/97	4	1998
9	CA	Fresno Municipal Sanitary Landfill	Fresno	01	PRP	12/17/93	4	1998
9	CA	George Air Force Base	Victorville	03	FF	05/22/95	2	2000
9	CA	Industrial Waste Processing	Fresno	01	PS	02/05/96	2	2001
9	CA	Iron Mountain Mine	Redding	01	F	09/21/92	4	1998
				02	PRP	01/27/93	4	1998
				03	PRP	09/21/94	4	1998
9	CA	J.H. Baxter & Co.	Weed	03	PRP	08/19/91	1	1999
9	CA	Koppers Co., Inc. (Oroville Plant)	Oroville	01	PRP	02/21/92	4	1998
				01	PRP	02/21/92	4	1998
9	CA	Lawrence Livermore National Laboratory	Livermore	02	FF	09/26/95	4	1999
9	CA	Lorentz Barrel & Drum Co.	San Jose	01	F	03/25/95	4	1998
9	CA	March Air Force Base	Riverside	02	FF	06/20/96	4	1999
9	CA	Modesto Ground Water Contamination	Modesto	01	F	09/23/97	4	1998
9	CA	Moffett Naval Air Station	Sunnyvale	01	FF	08/19/97	4	1998
9	CA	Newmark Ground Water Contamination	San Bernadino	01	F	09/24/93	4	1998
				02	F	04/17/95	4	1998
9	CA	Operating Industries, Inc., Landfill	Monterey Park	03	PRP	04/01/92	1	1999

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX B

STATUS OF REMEDIAL DESIGNS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	LEAD	FUNDING START	PRESENT COMPLETION SCHEDULE
9	CA	Sacramento Army Depot	Sacramento	04	FF	12/23/92	4 1998
9	CA	San Fernando Valley (Area 2)	Los Angeles/Glendale	02	PRP	05/01/94	4 1998
9	CA	Sharpe Army Depot	Lathrop	02	FF	03/05/96	4 1998
9	CA	United Heckathorn Co.	Richmond	01	PRP	07/19/96	4 1998
9	CA	Valley Wood Preserving, Inc.	Turlock	01 01	F PRP	06/25/92 03/29/95	4 1998 4 1998
9	CA	Waste Disposal, Inc.	Santa Fe Springs	01 01	PRP F	09/27/94 09/26/97	2 1999 2 1999
10	AK	Fort Wainright	Fairbanks N Star Borough	01 03	FF FF	07/01/97 05/06/96	4 1998 1 1999
10	ID	Bunker Hill Mining & Metallurgical	Smelterville	02	F	03/29/93	4 1999
10	ID	Idaho National Engineering Lab (USDOE)	Idaho Falls	18	FF	09/24/93	1 1999
10	OR	McCormick & Baxter Creos. Co. (Portland)	Portland	02 03	S S	06/01/96 06/01/96	1 2000 3 1999
10	OR	Teledyne Wah Chang	Albany	01	PRP	04/07/97	1 2000
10	WA	Bangor Ordnance Disposal	Bremerton	02	FF	04/01/97	3 1998
10	WA	Commencement Bay, Near Shore/Tide Flats	Pierce County	01 12 13 17 20	PS PRP PRP PRP PRP	06/30/89 05/18/94 06/22/94 04/14/97 07/11/96	3 1996 1 2001 3 1999 2 2001 4 2003
10	WA	Frontier Hard Chrome, Inc.	Vancouver	01	F	03/23/88	1 1999
10	WA	Harbor Island (Lead)	Seattle	01 07 09	PRP PRP PRP	08/06/96 07/16/97 06/30/97	4 1998 1 1999 4 1999
10	WA	Naval Undersea Warfare Engineering	Keyport	02	FF	03/13/95	1 1998

Progress Toward Implementing Superfund: Fiscal Year 1997

APPENDIX B

STATUS OF REMEDIAL DESIGNS IN PROGRESS ON SEPTEMBER 30, 1997

RG	ST	SITE NAME	LOCATION	OPER- ABLE UNIT	LEAD	FUNDING START	PRESENT COMPLETION SCHEDULE
		Stn. (4 Waste Area)					
10	WA	Wycoff Co./Eagle Harbor	Bainbridge Island	01	F	04/10/95	4 1999

Appendix C

List of Records of Decision

This appendix provides a specific list of FY97 records of decision (RODs) signed from October 1, 1996 through September 30, 1997. Detailed descriptions of the feasibility studies, as required by CERCLA Section 301(h)(1)(a), are available from the National Technology Information Services (NTIS) at 703-605-6000. EPA's Superfund Docket Center will assist in providing the publication number or answer any questions about the availability of specific RODs and can be reached at 703-603-9232. RODs can also be ordered through NTIS over the internet at <http://www.fedworld.gov/ntis/ntishome.html>.

<u>REGION</u>	<u>SITE</u>	<u>STATE</u>	<u>DATE</u>
1	Auburn Road Landfill *	NH	12/19/96
	Cheshire Ground Water Contamination	CT	12/31/96
	Davis (GSR) Landfill	RI	9/29/97
	Davisville Naval Construction Batt Cent	RI	9/29/97
	Fort Devens	MA	10/17/96
	Fort Devens	MA	9/29/97
	Fort Devens-Sudbury Training Annex	MA	9/30/97
	Gallup's Quarry	CT	9/30/97
	Loring Air Force Base	ME	6/16/97
	New London Submarine Base	CT	9/18/97
	Pease Air Force Base	NH	9/30/97
2	Curcio Scrap Metal, Inc.	NJ	9/30/97
	Federal Aviation Admin. Tech. Center	NJ	2/13/97
	Federal Aviation Admin. Tech. Center	NJ	7/21/97
	Global Sanitary Landfill	NJ	9/29/97
	Grand Street Mercury Site	NJ	9/30/97
	Haviland Complex *	NY	8/01/97
	Higgins Disposal	NJ	9/30/97
	Janssen Inc.	PR	9/30/97
	Jones Sanitation	NY	3/31/97
	Naval Air Engineering Center	NJ	7/07/97
	Naval Air Engineering Center	NJ	7/07/97
	Naval Air Engineering Center	NJ	7/07/97
	Naval Security Group Activity	PR	9/30/97
	Naval Security Group Activity	PR	9/30/97
	Naval Weapons Station Earle (Site A)	NJ	9/25/97

<u>REGION</u>	<u>SITE</u>	<u>STATE</u>	<u>DATE</u>
3	Naval Weapons Station Earle (Site A)	NJ	9/25/97
	Plattsburgh Air Force Base	NY	3/25/97
	Plattsburgh Air Force Base	NY	3/25/97
	Pollution Abatement Services	NY	9/30/97
	Preferred Plating Corp.*	NY	9/30/97
	Richardson Hill Road Landfill/Pond	NY	9/30/97
	Robintech, Inc./National Pipe Co.	NY	7/25/97
	Vega Alta Public Supply Wells	PR	9/30/97
	Aberdeen Proving Ground (Edgewood Area)	MD	9/23/97
	Aberdeen Proving Ground (Edgewood Area)	MD	9/24/97
	Aberdeen Proving Ground (Michaelsville LF)	MD	9/23/97
	Allegany Ballistics Laboratory (USNAVY)	WV	2/12/97
	Allegany Ballistics Laboratory (USNAVY)	WV	5/29/97
	Avco Lycoming (Williamsport Division)	PA	12/30/96
	Berks Landfill	PA	7/22/97
	Crossley Farm	PA	6/30/97
	Dover Air Force Base	DE	9/30/97
	Dover Air Force Base	DE	9/30/97
	Dover Air Force Base	DE	9/30/97
	Jacks Creek/Sitkin Smelting and Refinery	PA	9/30/97
	Marine Corps Combat Development Command	VA	9/30/97
	Naval Air Development Center (8 Areas)	PA	9/30/97
	Naval Surface Warfare - Dahlgren	VA	9/29/97
	Naval Surface Warfare - Dahlgren	VA	9/30/97
	Naval Weapons Station - Yorktown	VA	4/16/97
	North Penn - Area 12	PA	9/30/97
	Recticon/Allied Steel Corp.*	PA	8/29/97
	Tobyhanna Army Depot	PA	9/30/97
4	Aberdeen Pesticide Dumps	NC	9/16/97
	Arlington Blending & Packaging*	TN	7/24/97
	Cherry Point Marine Corps Air Station	NC	10/09/96
	Coleman-Evans Wood Preserving Co.*	FL	9/25/97
	Escambia Wood - Pensacola	FL	2/12/97
	Fcx, Inc. (Washington Plant)	NC	12/18/96
	Marzone Inc./Chevron Chemical Co.*	GA	6/18/97
	Munisport Landfill*	FL	9/05/97
	Newsom Brothers/Old Reichhold Chemicals	MS	8/08/97
	North Belmont PCE Site	NC	9/24/97
	Pensacola Naval Air Station	FL	9/15/97
	Sherwood Medical Industries	FL	9/18/97
	Townsend Saw Chain Co.	SC	12/19/96
	US DOE Oak Ridge Reservation	TN	1/23/97
	US DOE Oak Ridge Reservation	TN	7/10/97
	US DOE Oak Ridge Reservation	TN	9/02/97
	US DOE Oak Ridge Reservation	TN	9/23/97
	US DOE Oak Ridge Reservation	TN	9/24/97
	US DOE Paducah Gas Diffusion Plant	KY	9/29/97
	US DOE Savannah River Site	SC	3/27/97

<u>REGION</u>	<u>SITE</u>	<u>STATE</u>	<u>DATE</u>
	US DOE Savannah River Site	SC	3/27/97
	US DOE Savannah River Site	SC	3/27/97
	US DOE Savannah River Site	SC	3/27/97
	US DOE Savannah River Site	SC	3/27/97
	US DOE Savannah River Site	SC	3/27/97
	US DOE Savannah River Site	SC	5/14/97
	US DOE Savannah River Site	SC	5/14/97
	US DOE Savannah River Site	SC	9/30/97
	USA Alabama Army Ammunition Plant	AL	3/27/97
	USA Alabama Army Ammunition Plant	AL	3/27/97
	USAF Homestead AFB*	FL	8/18/97
	USMC Camp Lejeune	NC	10/09/96
	USMC Camp Lejeune	NC	5/15/97
	USMC Camp Lejeune	NC	5/15/97
	USMC Logistics Base 555	GA	9/02/97
	USMC Logistics Base 555	GA	9/02/97
	USN Air Station Cecil Field	FL	9/30/97
5	Allied Chemical & Ironton Coke*	OH	9/04/97
	Arcanum Iron & Metal*	OH	6/18/97
	Bendix Corp./Allied Automotive	MI	9/30/97
	Clare Water Supply*	MI	5/15/97
	Fields Brook	OH	6/30/97
	Fields Brook	OH	9/29/97
	J & L Landfill	MI	9/30/97
	Madison Metropolitan Sewerage Dist Lagon	WI	3/31/97
	Marion (Bragg) Dump	IN	9/30/97
	Organic Chem Inc.	MI	2/05/97
	Parsons Chemical Works Inc.	MI	9/30/97
	Reilly Tar & Chem. (Indianapolis Plant)	IN	6/30/97
	Reilly Tar & Chemical Corp. (Dover Plant)	OH	3/31/97
	Roto-Finish Co.	MI	3/31/97
	Sangamo Electric Dump/Crab Orchard Nat.	IL	2/19/97
	Scrap Processing Company, Inc.	WI	9/30/97
	South Point PLT	OH	9/26/97
	Tippecanoe San Landfill	IN	9/30/97
	Tomah Armory	WI	9/23/97
	Tomah Municipal San Landfill	WI	9/25/97
	United Scrap Lead Co., Inc.*	OH	6/27/97
6	Agriculture Street Landfill	LA	9/02/97
	Bailey Waste Disposal*	TX	12/16/96
	Brio Refining, Inc.*	TX	7/02/97
	Louisiana Army Ammunition Plant	LA	3/04/97
	National Zinc Corp.	OK	10/02/96
	RSR Corp.	TX	4/03/97
	RSR Corp.	TX	9/30/97
	South Cavalcade Street*	TX	6/27/97
	Southern Shipbuilding	LA	9/15/97
	Tar Creek (Ottawa County)	OK	8/27/97

<u>REGION</u>	<u>SITE</u>	<u>STATE</u>	<u>DATE</u>
7	Bee Cee Manufacturing Co.	MO	9/30/97
	Cherokee County	KS	8/20/97
	Des Moines TCE	IA	12/13/96
	Fort Riley	KS	9/29/97
	Nebraska Ordnance Plant (Former)	NE	4/07/97
8	California Gulch	CO	8/08/97
	Ellsworth Air Force Base	SD	4/28/97
	F.E. Warren Air Force Base	WY	11/21/96
	F.E. Warren Air Force Base	WY	9/30/97
	Hill Air Force Base	UT	9/30/97
	Hill Air Force Base	UT	9/30/97
	Rocky Flats Plant (USDOE)	CO	3/12/97
	Rocky Flats Plant (USDOE)	CO	6/03/97
9	Barstow Marine Corps Logistics Base	CA	6/03/97
	Camp Pendleton Marine Corps Base	CA	9/30/97
	Castle Air Force Base	CA	5/21/97
	Del Arno Facility	CA	9/05/97
	El Toro Marine Corps Air Station	CA	9/29/97
	El Toro Marine Corps Air Station	CA	9/29/97
	Fort Ord	CA	1/17/97
	Fort Ord	CA	1/17/97
	Iron Mountain Mine	CA	9/30/97
	Lawrence Livermore Laboratory (Site 300)	CA	1/29/97
	Modesto Ground Water Contamination	CA	9/26/97
	Moffett Naval Air Station	CA	8/19/97
	Norton Air Force Base	CA	6/25/97
	Schofield Barracks	HI	2/07/97
	Tucson International Airport Area	AZ	9/30/97
	Western Pacific Railroad Co.	CA	9/30/97
10	Boomsnub/Airco	WA	9/29/97
	East Multnomah County Ground Water	OR	12/31/96
	East Multnomah County Ground Water	OR	12/31/96
	Elmendorf Air Force Base	AK	12/04/96
	Elmendorf Air Force Base	AK	12/05/96
	Fort Richardson (USARMY)	AK	9/15/97
	Fort Wainwright	AK	3/31/97
	Fort Wainwright	AK	6/27/97
	Gould, Inc.*	OR	6/05/97
	Hanford 100-area (USDOE)*	WA	4/04/97
	Hanford 200-area (USDOE)*	WA	9/25/97
	Hanford 200-area (USDOE)	WA	2/24/97
	Harbor Island (Lead)	WA	11/27/96
	Monsanto Chemical Co. (Soda Springs)	ID	4/30/97
	Old Navy Dump/Manchester Laboratory	WA	9/30/97
	Puget Sound Naval Shipyard Complex	WA	12/13/96
	Puget Sound Naval Shipyard Complex	WA	1/24/97

* Amended RODs

Appendix D
Report of the
Inspector General



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

JANUARY 27, 1999

THE INSPECTOR GENERAL

MEMORANDUM

SUBJECT: Review of the Superfund Annual Report to Congress
for Fiscal Year 1997
Audit Report E1SFF9-11-0007-9100084

TO: Carol M. Browner
Administrator

Purpose, Background and Summary of Results

Section 301 (h)(1) of the Comprehensive Environmental Response, Compensation, and Liability Act, as amended by the Superfund Amendments and Reauthorization Act of 1986, requires EPA (the Agency) to submit to Congress, by January 1 of each year, a report on its progress in implementing Superfund during the prior fiscal year.

We have completed our mandated review of the fiscal year 1997 Annual Report to Congress (Annual Report), Progress Toward Implementing Superfund. In accordance with Section 301 (h)(2), we reviewed the Annual Report for reasonableness and accuracy. This report becomes part of the Annual Report.

After conducting a limited scope review, we determined that the fiscal year 1997 Annual Report was reasonable and accurate. Therefore, we are closing this report on issuance. Accordingly, no written response to the report is necessary.

Scope and Methodology

We conducted our review at EPA Headquarters' Office of Emergency and Remedial Response (OERR) in the Office of Solid Waste and Emergency Response. We began our review on November 9, 1998, and completed field work on January 6, 1999. For purposes of this review, we defined "reasonableness" as information that was rationally grounded and not excessive in nature. We defined "accuracy" as consistent with supporting documentation and not contradicting past or similar information.

Objectives

The overall objective of our review was to determine whether the Agency's fiscal year 1997 Annual Report was reasonable and accurate, as required by the statute. Sub-objectives we pursued to meet our overall objective were to determine whether:

- 1) the Annual Report presented consistent accomplishment information within the report, between this report and prior reports, and with supporting documentation;
- 2) construction completion accomplishments, one of the Agency's main indicators of site progress, were supported by source documentation; and
- 3) five-year reviews, which determine whether selected remedies continue to protect human health and the environment, were supported by the Agency's tracking system.

With respect to the first sub-objective, we reviewed a judgmental sample of key accomplishment data in the Annual Report's executive summary exhibits ("Summary of Fiscal Year 1997 Superfund Activities" and "Summary of Program Activity by Fiscal Year") and compared the data in the exhibits to the data within the text of the Annual Report itself. We also compared the data in the fiscal year 1997 report and prior Annual Reports to identify apparent inconsistencies.

For the second sub-objective, we determined whether Superfund site construction completion data for fiscal year 1997 was supported by source documentation. Properly supported construction completions would be an indicator that the accomplishments under this category were reasonable and accurate. For this review, acceptable support consisted of preliminary or final close out reports, no-further-action Records of Decision, or deletion notices. These are documents the Agency would sign to confirm that the criteria for a construction completion has been met. We used earlier work performed by our office in this area to support construction completions for the first half of fiscal year 1997. For the latter half of the fiscal year, we reviewed source documents to determine whether supporting documentation existed for the remaining construction completions.

We addressed the third sub-objective by comparing five-year review data presented in the fiscal year 1997 Annual Report against information in the Agency's Five-Year Review Tracking System. We did not conduct a review of the controls over the automated tracking system.

Results of the Review

Based on our limited scope review, we believe the Annual Report for fiscal year 1997 is accurate and reasonable. Below are the review results individually addressing each of our three specific sub-objectives.

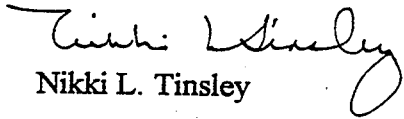
Concerning our first sub-objective, we identified inconsistencies: (1) within the Agency's draft report, (2) between that report and prior years' reports, and (3) with supporting documentation. We communicated our concerns, which we considered minor, to OERR staff who made the necessary corrections.

Concerning our second sub-objective, we determined that source documentation supported 100 percent of the construction completion accomplishments, one of the Agency's main indicators of site progress. (See our report entitled "Superfund Construction Completion Reporting," audit report number 8100030, December 30, 1997, which further details our work in this area.)

For the third sub-objective, we identified minor discrepancies between the data in the draft fiscal year 1997 Annual Report and the automated tracking system. We therefore expanded our scope to include five-year review data for fiscal 1995 and 1996 because the Agency had not issued the Annual Reports for those years and our prior review did not involve verification of such data. We found that the Annual Reports for fiscal 1995 and 1996 understated the number of five-year reviews completed. We communicated our concerns to OERR who made the necessary corrections for each fiscal year.

Conclusion

Prior to issuance of the final Agency Annual Report, OERR took the necessary actions to correct and clarify information identified during our limited scope review. Therefore, as of the date of this report, we believe the fiscal year 1997 Annual Report is reasonable and accurate.


Nikki L. Tinsley

Appendix E

Summary of the Superfund Program [1995-1997]

The U.S. Environmental Protection Agency (EPA) is committed to accelerating the pace of hazardous waste site cleanup. As part of this commitment, EPA has placed 220 National Priorities List (NPL) sites into the construction completion category during FY95-FY97 for a total of 498 NPL sites in this category.

Throughout FY95-FY97, EPA successfully encouraged potentially responsible parties (PRPs) to undertake and finance cleanup efforts at Superfund sites. By the end of FY97, PRPs led more than 69 percent of remedial designs (RDs) and remedial actions (RAs) started during the fiscal year. During FY95-FY97, EPA continually improved the effectiveness of the Superfund program through the continuation of SACM, the implementation of administrative reforms and the brownfields initiative, reorganizing the Superfund program, and supporting reauthorization efforts with Congress.

Superfund Accelerated Cleanup Model

EPA's continued implementation of the Superfund Accelerated Cleanup Model (SACM) resulted in streamlining the cleanup process and changed the paradigm of doing business in Superfund. SACM allows for rapid reduction of risks at Superfund sites and long-term restoration of the environment. SACM introduced significant improvements to the existing cleanup process by:

- eliminating sequential and duplicative studies by combining site assessment and investigation activities;

- removing the existing overlap between the types of cleanup actions done under the Superfund removal program and those done under the remedial program, to save time and money; and
- redefining Superfund cleanup actions as early and long-term actions.

Administrative Reforms

EPA improved the effectiveness of the Superfund program by further refining initiatives and identifying administrative changes to be made within the existing statutory and regulatory framework. Three rounds of reforms have been launched, including the second round and third rounds, in FY95 and FY96, respectively. Each round of reforms brought about a number of new or enhanced initiatives and continued ongoing initiatives. Collectively, the initiatives involve diverse activities such as promotion of economic redevelopment, enforcement reform, environmental justice, enhancement of community involvement, improvement of cleanup effectiveness and consistency, and expansion of the roles of states and Indian tribes. Examples of specific initiatives include:

Round 2

- testing the allocation process under which neutral parties allocate shares among responsible parties;
- providing relief to lenders by clarifying application of liability exemption;

- promoting economic redevelopment by archiving sites from CERCLIS determined to be of no further federal Superfund interest and awarding Brownfields pilots;
- reducing the cost and duration of cleanup through additional groundwater and land use guidances; and
- initiating a voluntary cleanup program to speed the cleanup of non-NPL sites.

Round 3

- compensating settlers for a portion of orphan shares, thereby reducing the responsibility of cooperative parties for shares attributable to insolvent parties;
- increasing the number of protected small contributors;
- reducing oversight of cooperative parties performing remedies and decreasing transaction costs;
- establishing a National Remedy Review Board to review proposed cleanup actions and help reduce cleanup costs;
- initiating remedy "Rules of Thumb" to produce time and cost savings;
- allowing economic redevelopment with the partial deletion of some sites; and
- fostering consistency among Regions for faster, fairer cleanups, reasonable risk assessments, and reduced PRP oversight.

Brownfields Initiative

EPA also promoted the redevelopment of abandoned and contaminated properties once used for industrial and commercial purposes ("brownfields"). EPA believes that environmental cleanup is a building block to economic redevelopment and must go hand-in-hand with bringing life and economic vitality back to communities.

The FY95 Brownfields Economic Redevelopment Initiative is a comprehensive approach to empower state and local governments, communities, and other stakeholders interested in economic redevelopment to work together in a timely manner to prevent, assess, safely cleanup, and sustainably reuse brownfields. In 1995, the General Accounting Office (GAO) estimated that there are 450,000 brownfields sites in the United States.

EPA addressed implementation of the initiative through the Brownfields Action Agenda and the subsequently established Brownfields National Partnership Action Agenda. The Agendas comprise a collection of bold strategies:

- implementing Brownfields pilot programs in cities, counties, towns, and Tribes across the country;
- clarifying liability and other issues of concern for lending institutions, municipalities, prospective purchasers, developers, property owners, and others;
- establishing partnerships with other EPA programs, federal agencies, states, cities, stockholders, and organizations;
- promoting community involvement by supporting job development and training activities linked to brownfield assessment, cleanup, and redevelopment; and
- linking environmental protection with economic redevelopment and community revitalization.

By the end of FY97, EPA had announced the selection of 121 Brownfields Pilots to be funded through cooperative agreements worth up to \$200,000 each for a two-year period. These pilots are either funded through Headquarters or the 10 Regional offices. The pilots are intended to provide redevelopment models, direct efforts toward removing regulatory barriers, and coordinate public and private efforts at the federal, state, and local levels.

Superfund Program Reorganization

EPA's Office of Emergency and Remedial Response (OERR) was reorganized in FY96 from a hierarchical, four division structure to a matrix organization with 14 centers of expertise. The reorganization had several distinct purposes:

- to accelerate site cleanup;
- promote teamwork;
- empower states; and
- provide better customer service.

Reauthorization Activities

EPA continued to work with Congress on reauthorization issues. CERCLA was last amended in 1986 by the Superfund Amendments and Reauthorization Act (SARA).

The major Superfund program areas include: Site Evaluation, Emergency Response, Remedial Progress, Enforcement Progress, Federal Facility Cleanups, Resource Estimates, and Superfund Program Support Activities.

Site Evaluation

Over FY95-FY97, EPA's progress in identifying and assessing newly discovered sites has resulted in a total of over 40,100 sites identified in the CERCLA Information System (CERCLIS). CERCLIS is Superfund's inventory of potentially threatening hazardous waste sites that require further federal Superfund program attention.

Through FY97, the Agency had begun work at over 98 percent of the 1,405 sites proposed to, listed on, or deleted from the NPL. Through the end of FY97, a total of 156 sites have been deleted from the NPL.

EPA carried on the implementation of SACM that encourages EPA Regions to reduce repetitive tasks and cost by combining certain site assessment, long-term remediation program, and removal program activities.

The NCP was modified so that CERCLIS sites needing no further EPA-financed response actions could be placed in a separate "archived" database. During FY95-FY97, EPA also proceeded with ongoing efforts to address technical complexities and improve site evaluation guidance.

During the 1995-1997 time period, EPA has undertaken projects to address brownfields issues by establishing the Brownfields Economic Redevelopment Initiative in FY95. This initiative is directed toward empowering states, local governments, communities, and others to work together to assess and safely cleanup brownfields sites.

Emergency Response

To protect human health and the environment from immediate or near-term threats, EPA and potentially responsible parties (PRPs) started nearly 830 removal actions and completed more than 889 removal actions during FY95-FY97. Through the end of FY97, more than 4,490 removal actions have been started and nearly 3,939 have been completed since the inception of the Superfund program.

The removal authority for "early actions," has been expanded to reduce immediate risks and expedite cleanup at NPL sites. The expansion was a key element of SACM. Early actions may include emergency, time-critical, or non-time critical removal responses or quick remedial responses.

Under the reportable quantities (RQ) regulatory requirements, EPA proposed an expanded exemptions rule (60 FR 40042) under which exemptions may be granted for releases of naturally occurring radionuclides associated with land disturbance due to certain mining activities.

EPA also issued guidance during FY96 that provides answers to common removals/RQ adjustment questions and concerns of the regulated community and general public. Additional guidance was completed on the removal response to radiation sites.

This page intentionally left blank

Superfund Program Reorganization

EPA's Office of Emergency and Remedial Response (OERR) was reorganized in FY96 from a hierarchical, four division structure to a matrix organization with 14 centers of expertise. The reorganization had several distinct purposes:

- to accelerate site cleanup;
- promote teamwork;
- empower states; and
- provide better customer service.

Reauthorization Activities

EPA continued to work with Congress on reauthorization issues. CERCLA was last amended in 1986 by the Superfund Amendments and Reauthorization Act (SARA).

The major Superfund program areas include: Site Evaluation, Emergency Response, Remedial Progress, Enforcement Progress, Federal Facility Cleanups, Resource Estimates, and Superfund Program Support Activities.

Site Evaluation

Over FY95-FY97, EPA's progress in identifying and assessing newly discovered sites has resulted in a total of over 40,100 sites identified in the CERCLA Information System (CERCLIS). CERCLIS is Superfund's inventory of potentially threatening hazardous waste sites that require further federal Superfund program attention.

Through FY97, the Agency had begun work at over 98 percent of the 1,405 sites proposed to, listed on, or deleted from the NPL. Through the end of FY97, a total of 156 sites have been deleted from the NPL.

EPA carried on the implementation of SACM that encourages EPA Regions to reduce repetitive tasks and cost by combining certain site assessment, long-term remediation program, and removal program activities.

The NCP was modified so that CERCLIS sites needing no further EPA-financed response actions could be placed in a separate "archived" database. During FY95-FY97, EPA also proceeded with ongoing efforts to address technical complexities and improve site evaluation guidance.

During the 1995-1997 time period, EPA has undertaken projects to address brownfields issues by establishing the Brownfields Economic Redevelopment Initiative in FY95. This initiative is directed toward empowering states, local governments, communities, and others to work together to assess and safely cleanup brownfields sites.

Emergency Response

To protect human health and the environment from immediate or near-term threats, EPA and potentially responsible parties (PRPs) started nearly 830 removal actions and completed more than 889 removal actions during FY95-FY97. Through the end of FY97, more than 4,490 removal actions have been started and nearly 3,939 have been completed since the inception of the Superfund program.

The removal authority for "early actions," has been expanded to reduce immediate risks and expedite cleanup at NPL sites. The expansion was a key element of SACM. Early actions may include emergency, time-critical, or non-time critical removal responses or quick remedial responses.

Under the reportable quantities (RQ) regulatory requirements, EPA proposed an expanded exemptions rule (60 FR 40042) under which exemptions may be granted for releases of naturally occurring radionuclides associated with land disturbance due to certain mining activities.

EPA also issued guidance during FY96 that provides answers to common removals/RQ adjustment questions and concerns of the regulated community and general public. Additional guidance was completed on the removal response to radiation sites.

Remedial Progress

Accomplishments during FY95-FY97 reflect EPA's continued efforts to accelerate the overall pace of cleanup and complete cleanup activities at an increasing number of sites. During the period, cleanup activities resulted in the placement of 220 additional NPL sites in the construction completion category for an overall total of 498 NPL sites in this category. Also started by EPA or PRPs were nearly 107 remedial investigation/feasibility studies (RI/FSs), more than 230 remedial designs (RDs), and more than 328 remedial actions (RAs). EPA signed 492 records of decision (RODs) at Fund-financed or PRP-financed sites.

Two components of the remedial program with significant activity during FY95-FY97 were the five-year review program and the Superfund Innovative Technology Evaluation (SITE) Program. A total of 146 five-year reviews, required by CERCLA Section 121(c), were carried out during this period. These reviews assure that human health and the environment are being protected by the selected remedial action. The SITE Program demonstrates and evaluates full-scale, innovative hazardous waste treatment technologies. In FY96, the program shifted from a technology-driven focus to one that was more integrated, driven by the needs of the waste remediation community. EPA's technology transfer and interagency coordination efforts have long been recognized leaders in the technology innovation arena, and are continually enhanced through conferences, demonstrations, and reference publications.

Enforcement Progress

Accomplishments during 1995-1997 reflect EPA's continuing commitment to maximizing PRP involvement in financing and conducting cleanup and recovery of Superfund monies expended for response actions. Over the three-year period, EPA has achieved enforcement agreements worth approximately \$2.2 billion in PRP response work. Through its cost recovery effort, EPA achieved approximately \$769 million in cost recovery settlements and collected more than \$822 million for reimbursement of Superfund expenditures in FY95-FY97. By the end of FY97, EPA had collected a

total of over \$1.7 billion in cost recovery settlements, bankruptcy settlements, fines and penalties.

EPA has been working toward improving the efficiency and fairness of Superfund enforcement. Transaction costs have been reduced through SACM, three rounds of administrative reforms, and promotion of an "enforcement first" initiative to secure increased PRP financial involvement. The reforms of FY95 encouraged *de minimis* settlements and de micromis settlements. Other approaches to promote fairness and flexibility in settlements were continued, and guidance documents were issued in FY95, detailing specific approaches to enforcement fairness.

Federal Facility Cleanups

Federal departments and agencies are largely responsible for implementing CERCLA at federal facility sites. To ensure federal facility compliance with CERCLA requirements, EPA provides advice and assistance, oversees activities, and takes enforcement action where appropriate. For sites that are on the NPL, EPA must concur with the selected remedy. The June 27, 1997 Federal Agency Hazardous Waste Compliance Docket listed a total of 2,104 federal facilities sites. Of the sites on the docket, 157 were proposed to or listed on the NPL, including 151 final and six proposed sites.

Throughout 1995-1997, the closure of military bases was an important issue. Major achievements in FY95 led EPA and the Department of Defense (DoD) to determine which installations to include in the Fast Track Cleanup Program of the Base Realignment and Closure Act (BRAC) in FY96. These actions allow for expedited cleanup and reuse of bases scheduled for closure. Several interagency forums were also held during this time span, allowing EPA to make significant progress in addressing further concerns associated with federal facility cleanup.

Resource Estimates

Under Executive Order 12580, EPA is required to estimate the resources needed to carry out Superfund program responsibilities assigned to EPA and other federal departments and agencies. Since

the enactment of CERCLA in 1980, Congress has provided Superfund with \$17.7 million in budget authority (FY81 through FY97).

Estimates of the long-term resources required to implement Superfund are based on the Outyear Liability Model (OLM). The OLM provides long-range forecasts, with flexibility to refine these forecasts, and can be adjusted to accommodate many program-related variables. To calculate a cost estimate, the OLM reviews active NPL sites, sites yet to begin the remedial process, non-site costs, and factors related to remedial action costs. The OLM cost estimate of completing cleanup of current NPL sites is more than \$13.6 billion for FY97 and beyond, bringing the total estimated cost of the program to \$31.3 billion.

Superfund Program Support

Throughout 1995-1997, EPA has taken measures to enhance support activities in the Superfund program. These steps include efforts to improve community relations, enhance public access to information, strengthen EPA's partnership with states and Indian tribes, and increase minority contractor utilization.

In its community involvement efforts, EPA tailors activities to the specific needs of individual communities and identifies ways to enhance community involvement efforts. EPA emphasized the importance of effective community involvement with guidance that encourages the Regions to establish community advisory groups (CAGs) in FY96. EPA also continued to provide technical outreach to communities, hold national conferences on community involvement, offer training and workshops, and facilitate community access to technical assistance grants (TAGs). To aid communities in obtaining technical assistance, EPA awarded 46 TAGs during FY95-FY97, bringing the total number of TAGs awarded since FY88 to 198, for a total value of more than \$13 million.

To enhance public access to Superfund information, EPA continued its partnership with the National Technical Information Service (NTIS), to provide Superfund document distribution services. EPA has fulfilled requests for more than two million

documents free of charge through NTIS, aided by a broadened use of electronic tools (e.g. the Internet and multimedia computers) initiated in FY96. A Superfund Order Desk is also maintained where single copies of documents or customized subscriptions may be purchased.

Performance Partnership Grants (PPGs) or Cooperative Agreements (CAs) may be awarded to states or tribes by EPA to support state and tribal involvement in the Superfund response activities. More than \$20 million is awarded annually in Core Program Cooperative Agreements (CPCAs). These agreements make it easier for Regions to assist states and tribes in developing comprehensive Superfund programs.

To promote small and disadvantaged business participation in Superfund contracting, EPA directly and indirectly awards Superfund work contracts to minority contractors. Direct procurement involves any procurement activity where EPA is a direct party to a contractual arrangement for supplies, services or construction. Financial assistance programs utilize indirect procurement methods. Awards and/or CAs are granted to eligible states, local municipalities, universities, non-profit and commercial institutions, hospitals and individuals. Direct procurement contracts totaled nearly \$151.5 million during FY95-FY97, while cooperative and interagency agreements with minority contractors totaling more than \$3.1 million and nearly \$104 million, respectively. In addition, EPA's Office of Small and Disadvantaged Business Utilization (OSDBU) conducted a number of outreach activities during FY95-97, including seminars, conferences, and training sessions.

This page intentionally left blank