

Environmental Protection Agency

FY 2003 Annual Performance Plan and Congressional Justification

Better Waste Management, Restoration of Contaminated Waste Sites, and Emergency Response

Strategic Goal: America's wastes will be stored, treated and disposed of in ways that prevent harm to people and to the natural environment. EPA will work to clean up previously polluted sites, restore them to uses appropriate for surrounding communities, and respond to and prevent waste-related or industrial accidents.

Resource Summary (Dollars in thousands)

	FY 2001 Actuals	FY 2002 Enacted	FY 2003 Request	FY 2003 Req. v. FY 2002 Ena.
Better Waste Management, Restoration of Contaminated Waste Sites, and Emergency Response	\$1,685,622.1	\$1,562,983.8	\$1,711,279.8	\$148,296.0
Control Risks from Contaminated Sites and Respond to Emergencies	\$1,524,914.9	\$1,397,140.9	\$1,544,018.6	\$146,877.7
Regulate Facilities to Prevent Releases	\$160,707.2	\$165,842.9	\$167,261.2	\$1,418.3
Total Workyears	4,316.4	4,388.5	4,498.7	110.2

Background and Context

Improper management of wastes can lead to serious health threats due to contamination of air, soil, and water, and as a result of fires and explosions. Likewise, improper waste management and disposal can pose threats to those living in nearby communities and can result in costly cleanups. One of the Agency's strategic goals is to ensure proper waste management and disposal to protect human health, endangered wildlife, vegetation, and natural resources from unacceptable risk posed by solid and hazardous wastes. In FY 2003, EPA will continue to promote safe waste storage, treatment, and disposal, cleanup active and inactive waste disposal sites, and prevent the release of oil and chemicals, including radioactive waste, into the environment.

Means and Strategy

EPA and its partners will continue their efforts to achieve this goal by promoting better waste management, cleaning up contaminated waste sites, and preventing waste-related or industrial accidents. To date, EPA and its partners have made significant progress toward achieving its two primary objectives that address human health and the environment at thousands of Superfund, Brownfields, Resource Conservation and Recovery Act (RCRA), underground storage tank (UST), and oil sites. Brought together by our common interest to protect our health, environment, and livelihoods, EPA and its partners have established an effective structure to manage the nation's

hazardous and solid wastes.

To achieve this goal, EPA seeks to further reduce or control the unacceptable risks posed to human health and the environment through better waste management and restoration of abandoned waste sites. In partnership with states, tribal governments, the public, and other stakeholders, EPA will reduce or control the risks to human health and the environment at thousands of Superfund, Brownfields, RCRA, and UST sites. EPA's strategy is to apply the fastest, most effective waste management and cleanup methods available, while involving affected communities in the decision making process. The Agency will employ enforcement efforts to further assist in reducing risk to humans from hazardous waste exposure.

In FY 2003, EPA will focus on four overarching themes in achieving its objectives:

- **Homeland Security:** Enhancing EPA's accident prevention, emergency preparedness, and emergency response programs to ensure the safety and health of the public, program personnel, and other emergency response personnel. The Agency will then be able to provide appropriate and timely crisis and consequence management related to weapons of mass destruction.
- **Revitalization:** Broad promotion of the successes and lessons learned by the brownfields program and other waste program revitalization efforts, and how revitalization can complement our traditional cleanup programs and lead to faster cleanups and productive reuse of properties.
- **One Cleanup Program:** Creating a national dialogue on the future of Superfund and other waste/cleanup programs. Continue progress in cleanups while increasing consistency and transparency across programs.
- **Recycling, Waste Minimization and Energy Recovery:** Promotion of recycling, waste minimization and energy recovery for both hazardous and non-hazardous wastes.

Homeland Security

In support of Homeland Security, the Agency is requesting \$86 million to strengthen the Agency's preparedness, response structure and improve state and local emergency response capabilities, continue operations of the Environmental Response Team Center West (ERTC-West), and research decontamination of buildings resulting from a release of biological agents.

Through the ERTC-West, the Superfund Program will maintain an around-the-clock emergency response activation system to support regions and states in the western part of the country. The ERT provides critical technical support services to EPA's response personnel in the field. These services include: environmental monitoring, decontamination, technical assistance on hazardous and radiation emergencies, and support to FBI-led response teams. The ERT also offers technical training to Federal, State, and local government officials in the latest response technology.

EPA plays a vital role in helping to protect the American people from hazardous substances releases as well as the highly dangerous agents (chemical, biological, radiological) associated with acts of terrorism. Any major terrorism event, whether it involves explosives, conventional hazardous materials or radiological, chemical or biological agents, will necessitate an EPA response to, first, assess the risks to public health, the environment and to response workers, second, to manage and mitigate the hazards of residual contamination, and, third, to conduct assessments of the adequacy of the response sufficient to allay the concerns of the public who will re-occupy the affected area. Currently, EPA's capability to conduct such responses resides in our Emergency Response program.

The Agency's chemical emergency preparedness and prevention (CEPP) program complements EPA's emergency response efforts. This program addresses the risks associated with the manufacture, transportation, storage and use of hazardous chemicals to prevent and mitigate chemical releases whether an incident may be accidental or intentional, as is the case in releases caused by terrorist acts. To meet its homeland security obligations the CEPP program works with state agencies and Local Emergency Planning Committees (LEPCs) to help strengthen their capabilities to prepare for and respond to potential incidents of terrorism. The LEPC is a community organization that brings together all entities (first responders, fire departments, hospitals, emergency technicians, planners, industry, the media, and local elected officials) that have primary responsibility for emergency preparedness at the local level. The program also works in partnership with the chemical and petrochemical industry to improve site security and the safe operations of facilities throughout the country.

Within the National Response System, EPA supports a national emergency preparedness and response capability. Under the National Response Team (NRT), Regional Response Team (RRT) and Federal Response Plan (FRP) the Federal government helps states and local governments address major incidents that are beyond their capabilities, including those involving terrorism. EPA chairs the NRT and co-chairs the 13 RRTs throughout the U.S. which integrates actions of all Federal partners to prevent, prepare for and respond to hazardous material releases including chemical, biological and radiological substances. The Agency also participates with other Federal agencies to implement national security, continuity of operations and other homeland security requirements.

The FY 2003 President's Budget requests resources to conduct research on better technologies and assessments to cleanup buildings contaminated by biological and chemical agents. These efforts will include the transfer of technologies and guidance on decontamination processes, evaluation of existing and new cleanup and detection technologies, development of risk assessment

methodologies, and production of rapid decontamination techniques and technologies.

Revitalization

To address the theme of revitalization, EPA is requesting \$200,000,000 to implement the Small Business Liability Relief and Brownfields Revitalization and Environmental Restoration Act (H.R. 2869), signed by President Bush on January 11, 2002. Brownfields are abandoned, idled, or underused industrial and commercial properties and are not traditional Superfund sites. Generally, Brownfields are not highly contaminated and, therefore, present lesser health risks. Economic changes over several decades have left thousands of communities with these contaminated properties and abandoned sites. This legislation promotes brownfields redevelopment by providing financial assistance for assessment and cleanup, reforming Superfund liability and enhancing state response programs. The legislation was the top environmental priority of the Administration and EPA will be working with Congress, other Federal agencies, states, tribes, local governments, the private sector and non-profit organizations on its implementation. In addition to the activities which have been carried out in the past, the new legislation will expand EPA's ability to address sites contaminated with petroleum and permit EPA to establish grants for brownfields cleanup.

EPA is committed to integrating the concept of revitalization and reuse into the process of cleaning up abandoned, inactive and contaminated waste sites, active and closing Federal facilities, and other properties. An essential element of the assessment and cleanup of contaminated property, whether they are Brownfields, Superfund, RCRA Corrective Action, Base Realignment and Closure, Federal facilities or USTs, is the ultimate goal of revitalizing and reusing that property. Although assessment and cleanup provide clear environmental benefits in mitigating exposure to hazardous contaminants, the ultimate goal is the reuse of these properties to improve the quality of life in America's communities. Building upon the Agency's recent successes in this area, EPA's waste cleanup programs will actively seek out opportunities to leverage public or private investment, create jobs associated with reuse, and increase the overall acreage reused.

One Cleanup Program

In support of the one cleanup program theme, the Superfund program works with States, Tribes, local governments, and other Federal agencies to protect human health and the environment and to restore sites to uses appropriate for nearby communities. Many of the nation's largest and most technically complex contaminated properties including abandoned, private, and Federal facilities are cleaned up by the Superfund Program. Site assessment is the first step in determining whether a site meets the criteria for placement on the National Priorities List (NPL) or for removal action to prevent, minimize or mitigate significant threats. When a site is placed on the NPL it becomes eligible for a fund-financed cleanup. The Agency also provides outreach and education to the surrounding communities to improve their understanding of potential site risk, such as risks posed by radioactive materials, and to promote direct involvement in every phase of the cleanup process.

One of the Superfund program's major goals is to have responsible parties pay for and conduct cleanups at abandoned or uncontrolled hazardous waste sites. The Superfund enforcement

program maximizes Potentially Responsible Party (PRP) participation and is committed to reforms, which increase fairness, reduce transaction costs, and promote economic redevelopment. The Agency also seeks to recover costs associated with a site cleanup from responsible parties when Superfund trust fund monies have been expended.

The RCRA corrective action program addresses a significant number of industrial sites, including Federally-owned facilities. Administered by EPA and authorized states, these sites include some of the most intractable and controversial cleanup projects in the country. Approximately 3,500 industrial facilities must undergo a cleanup under the RCRA program. Of these facilities, EPA and state partners have identified over 1,700 facilities as high priority because people or the environment are likely to be at significant current or future risk. As evidence of success in meeting this challenge, EPA and the states have now documented that both exposure to contamination and further migration of contaminated groundwater have been controlled at over 600 of the 1700 high priority facilities.

The RCRA corrective action program continues to emphasize redevelopment of RCRA corrective action sites to prevent these properties from becoming Brownfields (unused or underused property due to perceived concerns regarding hazardous waste contamination). Through its nine active pilots, the RCRA Brownfields Prevention Pilot program showcases the implementation of the RCRA corrective action reforms and the use of innovative approaches to cleanup activities. In addition, the RCRA program also sponsors a Targeted Site Effort (TSE) to focus a small amount of funds at specific sites to give assistance in moving forward in the corrective action process.

In partnership with the states, the Agency prevents releases, detects releases early in the event they occur, and addresses leaks from USTs containing petroleum and hazardous substances. The strategy for achieving this goal is to promote and enforce compliance with the regulatory requirements aimed at preventing and detecting UST releases, thereby protecting our nation's groundwater. While the vast majority of the approximately 700,000 active USTs have the proper equipment per Federal regulation, significant work remains to be done to ensure UST owners and operators properly maintain and operate their systems. The Agency's role is to work with states to promote compliance with the spill, overfill, and corrosion protection requirements, and ensure that the leak detection requirements are a national priority. This encompasses compliance for all Federally-regulated UST systems, including those on private and public property, in Indian Country, and Federal facilities. The Agency has primary responsibility for implementing the UST program in Indian Country.

The Leaking Underground Storage Tank (LUST) Program will continue its progress by promoting rapid and effective responses to releases from USTs containing petroleum. EPA plays a key role in implementing the national LUST Program by supporting the management of state, local, and tribal enforcement and response capability, as well as, sharing lessons learned with state regulators and the regulated community to increase cleanup accomplishments. The Agency's highest priorities in the LUST program over the next several years is to address approximately 150,000 cleanups that have yet to be completed, and to address methyl-tertiary-butyl-ether (MTBE) contamination which states are increasingly discovering, and which pose unique and often difficult remediation challenges.

Recycling, Waste Minimization, and Energy Recovery

In support of the recycling, waste minimization and energy recovery theme, the RCRA program will focus on improving current waste management practices, providing greater regulatory flexibility and promoting opportunities for converting waste to future energy and raw material sources. In FY 2003, EPA will undertake a comprehensive review of its waste management programs and regulations regarding hazardous and non-hazardous waste recycling, waste minimization and energy recovery practices. The review objective will be to identify opportunities to further the goal of resource conservation and recovery, while remaining true to the mission of ensuring safe and protective waste management practices.

Other elements of the Better Waste Management goal are associated with the promotion of safe waste management practices, which serve to avoid future cleanup and redevelopment burdens. For facilities that currently manage hazardous wastes, EPA and the authorized states ensure human health and environmental protection through the issuance of RCRA hazardous waste permits. The RCRA program works primarily through state partners to reduce the risks of exposures to dangerous hazardous wastes by maintaining a “cradle-to-grave” waste management framework. Under this framework, EPA and the states oversee the handling, transport, treatment, storage, and disposal of hazardous waste, ensuring that communities are not exposed to hazards through improper management. Hazardous waste management facilities with appropriate controls in place have made significant progress in minimizing the threat of exposure to hazardous substances. To date, 48 states, Guam, and the District of Columbia are authorized to issue permits. State authorization for all portions of the RCRA program, including regulations that address waste management issues included in permits, is an important Agency goal. The RCRA program strives to achieve greater efficiencies by adapting new innovative technologies that not only streamline permitting processes and better protect our land but also provide greater regulatory flexibility and opportunity for converting waste to future energy and raw material sources.

The Agency’s chemical emergency preparedness and prevention program addresses some of the risks associated with the manufacture, transportation, storage and use of hazardous chemicals to prevent and mitigate chemical releases, whether an incident may be accidental or intentional, as is the case in a terrorist event. The program also implements right-to-know initiatives to inform the public about chemical hazards and encourages actions at the local level to reduce risk. Section 112(r) of the Clean Air Act requires an estimated 16,000 facilities to develop comprehensive risk management plans (RMPs) and submit them to EPA, state agencies, and Local Emergency Planning Committees. The Agency believes that states are best suited to implement the RMP program because they benefit directly from its success and they often have established relationships with the communities that may be at risk.

The Oil Spill Program prevents, prepares for, responds to, and monitors oil spills as mandated and authorized in the Clean Water Act and Oil Pollution Act of 1990. EPA protects U.S. waterways through oil spill prevention, preparedness, and enforcement compliance. There are 465,000 non-transportation-related oil storage facilities that EPA regulates. When necessary, the Agency undertakes oil spill response in the inland zone which is then funded through a reimbursable

agreement with the U.S. Coast Guard.

Finally, The Agency has established performance objectives specific to Indian Tribes and Alaska Native Villages. These objectives stress waste prevention and cleanup and assistance to Tribes. To meet these objectives, EPA will identify Tribal needs, support and promote the involvement of Tribes in implementation activities, and control risks in Indian Country through assessment and clean up of contaminated sites in consultation and partnership with Tribes.

Research

The FY 2003 waste research program supports the Agency's objective of reducing or controlling potential risks to human health and the environment at contaminated waste sites by accelerating scientifically defensible and cost-effective decisions for cleanup at complex sites, mining sites, marine spills, and Brownfields in accordance with CERCLA. Research will: 1) provide improved methods and dose-response models for estimating risks from complex mixtures contaminating soils and groundwater; 2) provide improved methods for measuring, monitoring, and characterizing complex waste sites in terms of soils and groundwater; 3) develop more reliable technologies for cleanup of contaminated soils, groundwater, and sediments; and 4) determine the effects of contaminants on the environment. A new effort in Homeland Security will also begin in FY 2003 and focus on critical issues, such as the decontamination of buildings, in order to prevent and respond to future instances of bioterrorism.

Waste identification, waste management, and combustion constitute the three major areas of research under RCRA in FY 2003, as the Agency works towards preventing releases through proper facility management. Waste identification research will focus on multimedia, multi-pathway exposure modeling and environmental fate and transport, physical estimation in support of risk-based exemption levels for wastes; development of targeted exemptions of waste streams that do not pose unacceptable risks; and efforts to streamline the waste de-listing process. These efforts could significantly reduce compliance costs while still supporting EPA's mission to protect human health and the environment. Waste management research will focus on developing more cost-effective ways to manage/recycle non-hazardous wastes and will examine other remediation technologies, while combustion research will continue to focus on characterizing and controlling emissions from waste combustion.

Strategic Objectives and FY 2003 Annual Performance Goals

Control Risks from Contaminated Sites and Respond to Emergencies

- EPA and its partners will complete 22,500 Leaking Underground Storage Tank (LUST) cleanups for a cumulative total of approximately 313,300 cleanups since 1987.
- EPA and its partners will complete 40 Superfund cleanups (construction completions).
- Ensure trust fund stewardship by getting PRPs to initiate or fund the work and recover costs from PRPs when EPA expends trust fund monies. Address cost recovery at all NPL

and non-NPL sites with a statute of limitations (SOL) on total past costs equal to or greater than \$200,000.

- Maximize all aspects of PRP participation which includes maintaining PRP work at 70% of the new remedial construction starts at non-Federal Facility Superfund, and emphasize fairness in the settlement process.
- 257 (for a cumulative total of 1,252 or 73%) of high priority RCRA facilities will have human exposures controlled and 172 (for a cumulative total of 1,054 or 61%) of high priority RCRA facilities will have groundwater releases controlled.
- To ensure cost-effective and technically sound site clean-up, deliver state-of-the-art guidance and methods to EPA and stakeholders for risk management of fuel oxygenates; organic and inorganic contamination of sediments, ground water and/or soils; and oil spills.
- EPA will provide additional site assessment funding to 74 new sites, and to 52 existing sites, resulting in a cumulative total of 3,350 properties assessed, the generation of 21,300 jobs, and the leveraging of \$5.0 billion in cleanup and redevelopment funds since 1995.

Regulate Facilities to Prevent Releases

- EPA and its state and tribal partners will ensure that 80% of UST facilities will be in significant operational compliance with leak detection requirements, and 85% of UST facilities will be in significant operational compliance with spill, overfill and corrosion protection regulations.
- 77.2 of the hazardous waste management facilities will have approved controls in place to prevent dangerous releases to air, soil, and groundwater. This represents an additional 39 facilities meeting the goal this year.
- Certify that 8,000 55 gallon drums of radioactive waste (containing approximately 24,000 curies) shipped by DOE to the Waste Isolation Pilot Plant are permanently disposed of safely and according to EPA standards.

Highlights

In FY 2003, EPA and state cleanup actions will protect human health by reducing the effects of uncontrolled releases on local populations and sensitive environments. The Agency will build on past successes in cleaning up sites. The following accomplishments provide examples of what has been done by the Agency to achieve its goal:

- cleaned up 804 Superfund National Priorities List Sites through September 30, 2001;

- conducted over 6,500 Superfund removal response actions from 1982 through September 30, 2001;
- assessed over 43,700 potential Superfund sites;
- removed more than 32,700 sites from the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) waste site list;
- secured greater than \$20 billion in PRP commitments, through response and cost recovery settlements, over the life of the Superfund program;
- resolved potential liability of 24,700 small volume waste contributing parties through more than 475 de minimis settlements;
- responded to or monitored 300 oil spills in a typical year;
- awarded 399 Brownfields assessment pilots, over 129 brownfields cleanup revolving loan fund pilots, and 48 job training pilots through September 1, 2001;
- Over 600 of approximately 1,700 high priority RCRA sites targeted for aggressive risk reduction have met GPRA Environmental Indicator goals;
- 74% of approximately 2,750 hazardous waste management facilities have effective controls in place;
- Launched a RCRA Brownfields Prevention Pilot program with nine active pilots;
- Cleaned approximately 259,000 leaking underground storage tanks since 1987.

In FY 2003, EPA's goal is to complete construction at 40 private and Federal Superfund sites and take action to address contamination at 275 sites using removal authorities. In addition, EPA and its partners will make final site assessment decisions on 475 additional sites. The Superfund enforcement program's goal will be to obtain PRP commitments to initiate work at 70% of construction starts at non-Federal facility sites on the NPL and to conduct or fund removals.

In FY 2003, the Superfund redevelopment initiative will facilitate the return of additional Superfund sites to productive reuse. The Agency has compiled a list of over 260 Superfund sites that have been recycled. At these sites, more than 60,000 acres are now in ecological or recreational use. Approximately 15,500 jobs, representing approximately \$500 million in annual income, are located at sites that have been recycled for commercial use.

In FY 2003, the Agency will improve its Homeland Security preparedness and response capability, workforce safety, and coordination with our Federal and local partners. This will support national efforts to combat terrorist threats including biological, chemical and radiological attacks on populations in the United States. The Agency will implement a \$10 million initiative to establish a viable Homeland Security program at EPA that will reduce the risk to the public, better protect our emergency responders, and prevent environmental harm. This initiative will support the National Homeland Security strategy developed by the Office of Homeland Security and the White House that assigns EPA a critical role in preparing for and responding to terrorist incidents. This responsibility is based upon EPA's unique expertise and experience in emergency preparedness and response to hazardous material releases.

The Agency's Homeland Security efforts will concentrate on: (1) developing a multi-skilled workforce and providing them with advanced training; (2) implementing an EPA-wide event planning/response program that can fully participate in national inter-agency exercises; (3) providing

state-of-the-art response equipment (e.g., personal protection, field analysis, decontamination) and the resources to maintain the equipment; and (4) enhancing planning, coordination, and outreach efforts at the local, state, and Federal levels.

Reducing chemical accidents is vital to ensure that communities are not exposed to hazardous materials. The Agency will continue its efforts to help states and local emergency planning committees implement the risk management plan (RMP) program. EPA continues to make steady progress in this area and, in FY 2003, will delegate the program to eight additional states for a cumulative total of twenty-five. To reach this goal, EPA will provide technical assistance grants, technical support, outreach, and training to state and local emergency planning committees. Through these activities, states, local communities, and individuals will be better prepared to prevent and prepare for chemical accidents.

Through the Federal Oil Spill Program, EPA will continue to prevent, respond to, and monitor oil spills that occur in the waters of the United States and adjoining shorelines. Over 24,000 spills are reported annually while approximately half are in the inland zone which is under EPA's jurisdiction. EPA typically responds to and monitors the work of responsible parties at approximately 300 significant spills a year. To reduce the risk of hazardous exposure to people and the environment, the Agency aims to prevent oil spills from occurring, prepare for oil spills that do occur, and respond to and monitor spills when necessary.

The EPA Brownfields program coordinates a Federal, state, tribal, and local government approach to assist in addressing environmental site assessment and cleanup. This program has experienced tremendous growth in applications for new and supplemental pilots, averaging 198 applications per year. The passage of Brownfields authorizing legislation in December 2001 allows an expanded program to address environmental and economic challenges presented at brownfields sites including:

- grants to address petroleum contaminated sites
- grants for clean up activities
- expanded resources for state and tribal programs
- Tribal program funds for monitoring public health
- responding to mine scarred lands, contaminative, and controlled substances

In FY 2003, the Brownfields program will provide \$29 million in funding and technical support for 74 new assessments and 52 existing assessments. These assessments provide states (including U.S. territories), political subdivisions (including cities, towns, and counties), and Federally recognized Tribes with necessary tools, information, and strategies for promoting a unified approach to environmental site assessment, characterization, and redevelopment. Benefits derived from this effort will include leveraging a total of \$5 billion in cleanup and redevelopment funds, generation of 21,300 jobs, and assessment of 3,350 sites through FY 2003. In addition, the Agency and its Federal partners will continue to support the existing 28 showcase communities which serve as models to demonstrate the benefits of interagency cooperative efforts in addressing environmental and economic issues related to brownfields. The showcase communities capitalize on a multi-agency partnership designed to provide a wide range of support depending on the particular needs of

each community.

As part of this initiative, EPA will use approximately \$30 million to address the regulatory gap that prohibits EPA funds from addressing the estimated 200,000 abandoned underground storage tanks (USTs) and other petroleum contamination found on brownfields properties. With these funds, EPA will support assessment and cleanup of petroleum contaminants in 50 brownfields communities.

To further enhance a community's capacity to respond to brownfields redevelopment, the Agency will also provide funding for 33 communities to capitalize brownfields cleanup revolving loan funds (BCRLF) with the requested increase. All communities with brownfields properties are eligible to apply. For the first time, Brownfields legislation authorizes funding for cleanup grants. It is estimated that cleanup funding might be available for up to 25 sites.

The Agency will also provide \$50 million for states and Indian tribes to establish or enhance their response programs. The new legislation will also permit the recipients to capitalize revolving loan funds, purchase insurance or develop a risk sharing pool, an indemnity pool, or an insurance mechanism to provide financing for response actions under a state response program.

To augment the communities' capacities to clean up brownfields sites, EPA will fund 10 additional job training pilots for community residents and will provide \$3 million to the National Institute of Environmental Health Sciences (NIEHS) to supplement its minority worker training programs that focus on brownfields workforce development activities. In addition, EPA will continue to explore connections between RCRA low-priority corrective action efforts and cleanup of brownfields properties.

In FY 2003, 257 additional high priority RCRA facilities will have current human exposures under control and 172 additional high priority RCRA facilities will have migration of contaminated groundwater under control. To accomplish its RCRA objectives, the Agency has improved the pace of cleanups through administrative reforms announced in 1999 and 2001. The reforms successfully established an environment for program implementers to be innovative and results-oriented by promoting faster, focused, more flexible cleanups. The Agency developed these reforms with input from states, industry and environmental organizations to accomplish the following objectives: pilot innovative approaches, accelerate the changing culture, connect communities to cleanups, and capitalize on redevelopment potential.

In FY 2003, the RCRA hazardous waste permits program will have permits or other approved controls in place for 77% of the hazardous waste management facilities (out of a baseline of approximately 2,750 facilities). Securing approved controls in place at facilities minimizes the threat of exposure to hazardous substances because the RCRA program's comprehensive framework regulates the handling, transport, treatment, storage, and disposal of hazardous waste. In addition, the program is planning an e-permitting initiative which would complement the new standardized permit process. This initiative will expedite and simplify the permitting process and provide better public access to permitting information.

The Agency has several efforts underway to improve waste management practices throughout the RCRA program to better reflect actual levels of risk. The hazardous waste identification rule and follow-up efforts seek to exclude lower risk wastes from hazardous waste regulation. In FY 2003, the Agency will continue to develop exemptions for specific low-concern wastes as well as concentration-based exemption levels for constituents occurring in hazardous wastes.

As the maximum achievable control technology (MACT) standards for hazardous waste incinerators and kilns are implemented, emissions of dioxins, furans, toxic metals, acid gases and particulate matter from these sources will be reduced. These efforts are intended to further reduce the indirect exposure to hazardous constituents in emissions, especially to children. In 2000, the Agency initiated work on Phase II MACT standards for hazardous waste burning boilers and halogen acid furnaces. However, in 2001 the D.C. Circuit Court of Appeals vacated the Phase I MACT standards. In 2002 and FY 2003, EPA will work to revise the combustion standards and address the court's action.

In FY 2003, the Agency will work with states, industry, and community representatives to begin implementation of the voluntary guidelines for industrial non-hazardous waste management. These voluntary guidelines address a range of issues including groundwater contamination, air emissions, and alternatives to waste disposal.

Based on EPA's minimum national standards for municipal solid waste (MSW), states regulate landfill practices. The Agency worked with states to review the national standards. The Agency is currently initiating regulatory revisions to provide additional flexibility so that compliance is less costly and easier to achieve. Regulatory revisions will provide an opportunity for bioreactor technology, to pave the way for future new energy and raw material sources.

The Agency will accelerate the pace of LUST cleanups through additional support to the states to hire staff to oversee and expedite cleanups. Better oversight and quicker action can reduce the costs of cleaning up MTBE contamination, which can cost 100% more than a cleanup involving the typical gasoline contaminants. Accelerating the pace of these cleanups will result in 500 additional cleanups completed, from the end of FY 2002, that may involve groundwater and MTBE contamination. In turn, fewer communities and individuals, including those in Indian Country, will lose their drinking water supplies. UST owners and operators undertake nearly all cleanups under the supervision of state or local agencies. The Agency oversees these activities in Indian Country.

Research

In FY 2003, contaminated sites research will be conducted to: 1) reduce uncertainties associated with soil/groundwater sampling and analysis; 2) reduce the time and cost associated with site characterization and site remediation activities; 3) evaluate the magnitude of the risks posed by contaminants to human health and the ecosystem as well as the contributions of multiple exposure pathways, the bioavailability of adsorbed contaminants and treatment residuals, and the toxicological properties of contaminant mixtures; and 4) develop and demonstrate more effective and less costly remediation technologies involving complex sites and hard-to-treat wastes. Other proposed work will enhance and accelerate current contaminated sediments research efforts, providing the data needed to make and support crucial decisions on high impact and high visibility sites. Research focusing on Homeland Security issues such as transfer of technologies and guidance on decontamination processes, evaluating existing and new cleanup and detection technologies, developing risk assessment methodologies for the both the short and long term, and producing rapid decontamination techniques and technologies for cleanup of contaminated buildings will begin in FY 2003. These research efforts are critical in order to prevent and respond to future instances of bioterrorism.

Waste management research in FY 2003 will support the Hazardous Waste Identification Rule (HWIR), a risk-based approach for delisting wastes, as well as study improved ways to minimize waste releases and impacts. Additionally, waste management research will be conducted to improve the management of both solid and hazardous wastes.

External Factors

There are a number of external factors that could substantially impact the Agency's ability to achieve the outlined objectives under this goal. These include reliance on private party response and State partnerships, development of new environmental technology, work by other federal agencies, and statutory barriers.

The Agency's ability to achieve its goals for Superfund construction completion is partially dependent upon the performance of cleanup activities by other Federal agencies, such as the Department of Defense (DOD) and the Department of Energy (DOE). In addition to the construction completion goal, the Agency must rely on the efforts of DOD and DOE to establish and maintain the Restoration Advisory Boards (RABs)/Site Specific Advisory Boards (SSABs). RABs and SSABs provide a forum for stakeholders to offer advice and recommendations on the restoration of Federal Facilities. There are other EPA goals that rely on activities with other entities, such as PRP negotiations and agreements with States and Tribes.

For the RCRA program, the Agency's ability to achieve its release prevention and cleanup goals is heavily dependent on state participation. In most cases, states have received authorization (hazardous waste management program) or approval (municipal solid waste landfill permit program) and are primary implementors of these programs. As such, EPA relies on states to perform many of the activities needed to achieve these targets. State programs are also primarily responsible for implementing the UST/LUST program. The Agency's ability to achieve its goals is dependent on

the strength of state programs and state funding levels. The Agency will build upon its commitment to provide states and tribes with technical support and incentives to meet national LUST cleanup targets. Technical support and incentives range from promoting multi-site cleanup agreements, conducting cleanup pilots to test the benefits of incentive-based cleanups, such as pay-for-performance contracting and providing other tools to help states and the tribes achieve faster, less expensive, and more effective LUST cleanups.

For the risk management and Homeland Security programs, the Agency recognizes that accident prevention and response, as well as preparedness for terrorist incidents, are inherently local activities. To succeed, the program relies on the commitment and accomplishments of the various stakeholders, including industry, state and local government, and other Federal partners. EPA's success will depend upon the willingness and ability of stakeholders to deliver on the commitments and obligations in their plans. EPA plays a key role, but neither controls the resources nor sets the priorities to ensure that all Federal, state and local participants are engaged at a level that will ensure our commitments are met.

Environmental Protection Agency

FY 2003 Annual Performance Plan and Congressional Justification

Better Waste Management, Restoration of Contaminated Waste Sites, and Emergency Response

Objective: Control Risks from Contaminated Sites and Respond to Emergencies

By 2005, EPA and its federal, state, tribal, and local partners will reduce or control the risk to human health and the environment at more than 374,000 contaminated Superfund, RCRA, underground storage tank (UST), and brownfield sites and have the planning and preparedness capabilities to respond successfully to all known emergencies to reduce the risk to human health and the environment.

Resource Summary (Dollars in Thousands)

	FY 2001 Actuals	FY 2002 Enacted	FY 2003 Request	FY 2003 Req. v. FY 2002 Ena.
Control Risks from Contaminated Sites and Respond to Emergencies	\$1,524,914.9	\$1,397,140.9	\$1,544,018.6	\$146,877.7
Environmental Program & Management	\$61,220.7	\$67,012.0	\$90,464.8	\$23,452.8
Hazardous Substance Superfund	\$1,308,981.8	\$1,175,519.4	\$1,166,199.3	(\$9,320.1)
Leaking Underground Storage Tanks	\$69,762.9	\$70,842.7	\$70,100.2	(\$742.5)
Oil Spill Response	\$876.6	\$905.2	\$909.9	\$4.7
Science & Technology	\$51,393.2	\$47,948.5	\$5,931.3	(\$42,017.2)
State and Tribal Assistance Grants	\$32,475.3	\$34,913.1	\$210,413.1	\$175,500.0
Superfund Reimbursables	\$204.4	\$0.0	\$0.0	\$0.0
Total Workyears	3,556.1	3,580.7	3,698.3	117.6

Key Program (Dollars in Thousands)

	FY 2001 Enacted	FY 2002 Enacted	FY 2003 Request	FY 2003 Req. v. FY 2002 Ena.
Administrative Services	\$14,390.0	\$0.0	\$0.0	\$0.0
Assessments	\$79,417.5	\$76,472.9	\$76,236.3	(\$236.6)
Brownfields	\$92,540.3	\$97,632.7	\$199,768.9	\$102,136.2
Capacity Building	\$755.4	\$725.1	\$652.6	(\$72.5)
Civil Enforcement	\$0.0	\$612.2	\$582.1	(\$30.1)
Compliance Assistance and Centers	\$1,174.3	\$670.0	\$689.8	\$19.8
Congressionally Mandated Projects	\$7,225.4	\$8,815.0	\$0.0	(\$8,815.0)
Facilities Infrastructure and Operations	\$44,107.7	\$50,320.3	\$45,816.0	(\$4,504.3)

	FY 2001 Enacted	FY 2002 Enacted	FY 2003 Request	FY 2003 Req. v. FY 2002 Ena.
Federal Facilities	\$30,622.0	\$31,206.5	\$31,915.5	\$709.0
Federal Facility IAGs	\$8,455.1	\$8,784.7	\$9,091.7	\$307.0
Federal Preparedness	\$9,728.2	\$9,849.3	\$9,883.0	\$33.7
Hazardous Substance Research:Hazardous Substance Research Centers	\$4,527.7	\$4,576.8	\$4,599.2	\$22.4
Hazardous Substance Research:Superfund Innovative Technology Evaluation (SITE)	\$6,554.0	\$6,501.0	\$6,545.0	\$44.0
Homeland Security	\$3,194.0	\$45,485.4	\$86,310.4	\$40,825.0
Homestake Mine	\$0.0	\$0.0	\$8,000.0	\$8,000.0
LUST Cleanup Programs	\$10,055.4	\$10,067.4	\$10,285.4	\$218.0
Leaking Underground Storage Tanks (LUST)Cooperative Agreements	\$58,341.3	\$59,331.9	\$58,341.2	(\$990.7)
Legal Services	\$4,643.6	\$4,610.7	\$5,077.4	\$466.7
Management Services and Stewardship	\$13,538.0	\$27,997.8	\$29,308.3	\$1,310.5
Other Federal Agency Superfund Support	\$10,676.5	\$10,676.0	\$10,676.0	\$0.0
Planning and Resource Management	\$26.4	\$0.0	\$0.0	\$0.0
RCRA Corrective Action	\$41,150.9	\$38,262.3	\$38,965.2	\$702.9
RCRA State Grants	\$32,736.6	\$31,913.1	\$31,913.1	\$0.0
Radiation	\$14,032.7	\$14,623.5	\$14,899.8	\$276.3
Regional Management	\$1,209.3	\$1,467.0	\$1,452.5	(\$14.5)
Research to Support Contaminated Sites	\$30,666.5	\$29,896.9	\$28,121.1	(\$1,775.8)
Superfund - Cost Recovery	\$29,495.5	\$29,477.5	\$30,375.9	\$898.4
Superfund - Justice Support	\$28,437.3	\$28,150.0	\$28,150.0	\$0.0
Superfund - Maximize PRP Involvement (including reforms)	\$82,193.9	\$81,701.1	\$84,396.9	\$2,695.8
Superfund Remedial Actions	\$493,924.2	\$484,659.8	\$489,355.0	\$4,695.2
Superfund Removal Actions	\$198,973.0	\$202,654.0	\$202,610.3	(\$43.7)

FY 2003 Request

Leaking Underground Storage Tanks

In partnership with states and tribes, the goal of the Leaking Underground Storage Tank (LUST) program is to promote better, faster, and less expensive cleanups while encouraging the return of properties to productive and appropriate reuse. The LUST program addresses the threat to groundwater from Federally regulated leaking underground storage tanks that contain petroleum or hazardous substances. Underground Storage Tank (UST) owners and operators undertake nearly all corrective actions under the supervision of state or local agencies. The Agency oversees these activities in Indian Country.

In FY 2003, the Agency's goal is to complete 22,500 cleanups under the supervision of EPA and its state, local and tribal partners. The Agency will also continue to encourage the return of properties to productive reuse as part of the LUST corrective action process. The LUST program requires that UST owners and operators take appropriate measures to clean up releases. In recent years, contamination from the petroleum additive, methyl tertiary butyl ether (MTBE), has posed unique and significant challenges for the LUST Program. In FY 2003, the Agency plans to further assess the impact of groundwater and MTBE contamination on cost and the duration of the cleanup efforts. This assessment will enable the Agency to more effectively address the complex nature of groundwater and MTBE contamination cleanup efforts.

One of the Agency's highest priorities in the LUST program over the next several years is to address approximately 150,000 cleanups that have yet to be completed. A vast majority of these releases are contaminated by MTBE which, if not addressed rapidly, moves quickly through soil and can easily contaminate groundwater and drinking water. This is a serious concern in Indian Country where there is more reliance on groundwater as a source for drinking water. Many cleanups which involve groundwater and MTBE contamination, result in more complex, costly, and time-consuming cleanups. In spite of this, the Agency will try to accelerate the pace by providing support to state staff to oversee and expedite LUST cleanups. Better oversight and quicker action can reduce the costs of cleaning up MTBE contamination, which can cost 100% more than a cleanup involving typical gasoline contaminants. Accelerating the pace of these cleanups will result in fewer communities and individuals, including those in Indian Country, losing their water supplies.

The LUST Program will also help to advance EPA's one cleanup program theme by continuing its close relationship and dialogue with states, which are the primary implementers of the LUST Program, and with tribes. Furthermore, the Senior Cleanup Council, comprised of upper-level EPA and state managers representing all cleanup programs including the LUST Program, plans to continue their work to address policy and implementation issues that will streamline and improve consistency among all cleanup programs.

EPA plays a key role in implementing the national LUST Program by supporting the management of state, local, and tribal enforcement and response capability. In addition, the Agency shares lessons learned with state regulators and the regulated community to increase cleanup accomplishments. EPA will provide states and Tribes with technical support and incentives to meet national LUST cleanup goals. Technical support and incentives will include promoting multi-site cleanup agreements, conducting cleanup pilots to test the benefits of incentive-based cleanups (e.g., Pay-For-Performance), and providing other tools which will help states and the tribes achieve faster, less expensive, and more effective LUST cleanups.

To address these LUST sites and to help states make more efficient use of their resources, including state funds that reimburse some UST owners and operators for a portion of their cleanup costs, the Agency will fund cooperative agreements under which states oversee cleanups by UST owners and operators. In cases where the responsible owner or operator is unknown, unwilling, or unable to clean up releases, LUST resources are available to pay for this activity. To be effective, remediation technologies will need to advance in order to address new contaminants, such as MTBE.

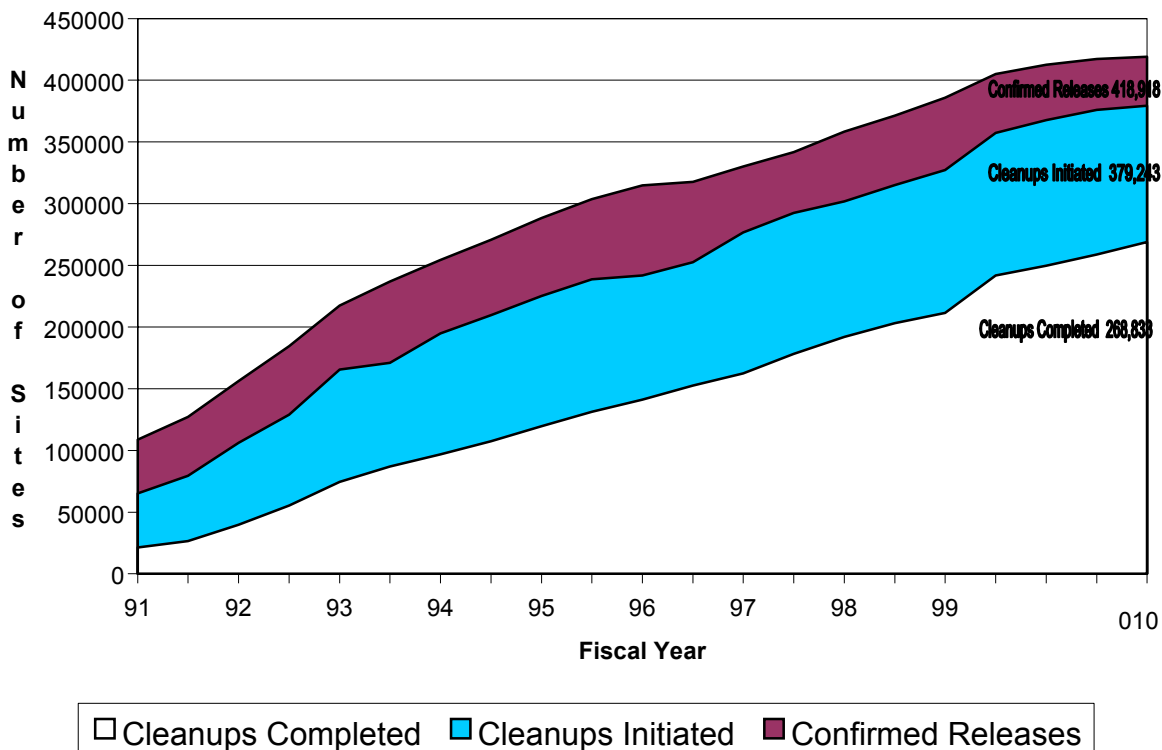
As substitutes are sought for MTBE, and as the composition of gasoline changes in response to changing engine performance requirements, states will face the continuing challenge of training new staff in the new remediation and site investigation technologies.

The Agency has the primary responsibility for implementing the LUST program in Indian Country. EPA oversees and conducts site assessments and remediation, in part, through a national LUST contract designed specifically for Indian Country. Through the end of September 2001, there were 1,150 confirmed releases, 886 cleanups initiated, and approximately 532 cleanups completed. The Agency estimates that cleaning up all known and yet-to-be-discovered releases in Indian Country will take several years.

Superfund

National UST Corrective Action Activity

Total corrective action cumulative over time from FY1991 - FY2001



In support of the Agency’s one cleanup program theme, the Superfund program addresses contamination from uncontrolled releases at Superfund hazardous waste sites threatening human health, the environment, and the economic vitality of local communities. Superfund sites with contaminated soils and groundwater exist nationally in a large number of communities. Many of these sites are located in urban areas, are accessible by children, and expose disadvantaged populations to contamination. Once contaminated, groundwater and soils may be extremely difficult

and costly to clean up. Some sites will require decades to clean up because of their complexity.

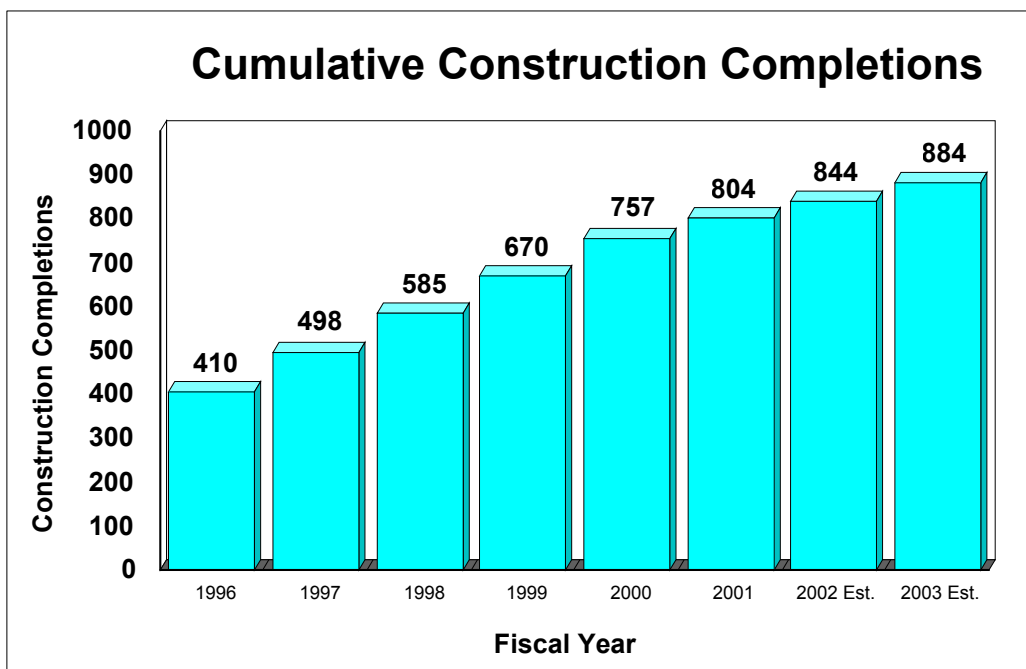
To protect human health and the environment and address potential barriers to redevelopment, EPA works with states, Indian Tribes, and other Federal agencies to: 1) assess sites and determine whether they meet the criteria for Federal Superfund response actions; 2) prevent, minimize or mitigate significant threats at Superfund sites through removal actions; 3) generate accurate risk assessment and cost-performance data critical to providing the technical foundation for decisions made in environmental cleanup programs; 4) complete remedial cleanup construction at sites listed on the NPL; 5) develop technologies for cost-effective characterization and remediation; 6) ensure long-term protectiveness of remedies by overseeing operations and maintenance and conducting five-year reviews; 7) enhance the role of states and Indian Tribes in the implementation of the Superfund program; 8) work with the surrounding communities to improve their direct involvement in every phase of the cleanup process and their understanding of potential site risk; 9) continue progress of cleanups while increasing consistency with other EPA cleanup programs; and 10) promote reuse and redevelopment of Superfund sites.

EPA's efforts to address uncontrolled releases at Superfund sites begin when states, Indian tribes, citizens, other Federal agencies, or other sources notify EPA of a hazardous waste site or incident. EPA confirms this information and places sites requiring Federal attention in the Agency's Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) database (in the case of Federal facilities, sites are placed on the Federal facility hazardous waste docket). EPA assesses these sites to determine whether Federal action is needed. In most cases, EPA makes a determination that no further Federal action is required. These sites are removed from the inventory. If warranted, EPA may refer sites removed from its inventory to state or Tribal environmental authorities for further attention. For those sites requiring additional action to protect public health and the environment, EPA seeks the course of action best suited for the individual site. Sites posing immediate risks may be addressed under removal authority. EPA may defer response at sites with ongoing state action. In some instances, potentially responsible parties enter into agreements with EPA to evaluate or clean up sites prior to listing on the NPL. In such cases, where cleanup is progressing in a timely and protective manner or is completed prior to final listing, listing on the NPL may be unnecessary. Some sites may be addressed under both removal and remedial authorities when, for example, early removal action is taken to address immediate risks at sites on the NPL. As a matter of policy, EPA seeks a concurrence from a governor before listing a site on the NPL.

EPA undertakes removals to prevent, reduce or mitigate threats posed by releases or potential releases of hazardous substances, pollutants, and contaminants in emergency and non-emergency situations at NPL and non-NPL sites. EPA undertakes removal response actions at: 1) emergency incidents where response is necessary within a matter of hours (e.g., threats of fire or explosion); 2) time-critical incidents posing public health and environmental threats; and 3) non-time critical situations at both NPL and non-NPL sites to promote quicker and less costly cleanup. Sites known to pose the greatest potential risk to public health and the environment receive priority.

For sites listed on the NPL, remedial work begins with site characterization and a feasibility study to review site conditions and proposals for future land use. These actions form the foundation for the record of decision and remedy selection. Public involvement is a key component in selecting the proper remedy at a site. A remedial action is performed upon approval of the remedial design and represents the actual cleanup or other work necessary to implement the remedy selected. Potentially responsible parties or other Federal agencies perform remedial action work. EPA or states may also perform remedial cleanup as Fund-financed actions.

In FY 2003, EPA will complete construction at 40 NPL sites. As of September 30, 2001,



EPA completed all final cleanup plans at over 1,000 Superfund NPL sites, undertaken over 6,500 removals at hazardous waste sites to immediately reduce the threat to human health and the environment, assessed over 43,700 sites, and removed more than 32,700 sites from the CERCLIS waste site list to help promote the economic redevelopment of these properties. The Agency also has cleanup construction underway or has completed 92% of the 1,479 sites on the final NPL, including:

- 54% of sites have all cleanup construction completed (804 sites)
- 26% of sites have remedial cleanup construction underway (391 sites)
- 11% of sites have had or are undergoing a removal cleanup action (167 sites).

In FY 2003, EPA will continue its efforts to control human exposure pathways and control the migration of contaminated groundwater at NPL and non-NPL-sites.

Additionally, environmental data gathered by EPA through August 30, 2001, shows that Superfund continues to fulfill its environmental mission and is reducing the risks to human and

ecological health posed by dangerous chemicals in the air, soil, and water. Since the inception of the Superfund program, EPA has: 1) provided alternative water supplies to over 498,000 people at NPL and non-NPL sites to protect them from contaminated ground and surface water; 2) relocated over 29,000 people at NPL and non-NPL sites in instances where contamination posed the most severe immediate threats; 3) cleaned 467 million cubic yards of hazardous solid waste; and, 4) cleaned 353 billion gallons of hazardous liquid waste.

Although completion of construction is a major milestone in the Superfund program, many activities occur at a site after this milestone is achieved. These “post-construction” activities include the following: 1) oversight of operation and maintenance activities performed by the states and PRPs to ensure that the cleanup works properly and the site remedy continues to be protective of human health and the environment; 2) operation of Fund-financed groundwater restoration systems for up to 10 years (long-term response), and oversight of states and PRPs operating these systems until cleanup goals are achieved; 3) implementation of institutional controls and oversight to ensure they remain protective; 4) five-year reviews to assure that remedies remain protective; 5) optimization of groundwater remediation systems to improve performance and/or reduce costs; and 6) site deletion from the NPL. As more sites move into post-construction, the Agency is devoting more resources to assure adequate long-term stewardship. Also, these post-construction actions are essential to assure that Superfund sites are safe for revitalization and reuse following cleanup.

EPA is committed to involving citizens in the site cleanup process. Superfund bases its community involvement on two-way communication designed to keep citizens informed about site progress and give them the opportunity to provide input on site decisions. The Agency conducts outreach efforts, such as holding public meetings, establishing community advisory groups, and distributing site-specific fact sheets. EPA also provides communities with financial assistance to hire technical consultants to assist them in understanding the problems and potential solutions to address hazardous waste cleanups. The Agency strives to create a decision-making process to clean up sites that communities feel is open and legitimate, and improves the community's understanding of potential risk at hazardous waste sites.

States and Indian Tribes are key partners at Superfund sites. EPA can authorize the states or Tribes to carry out Fund-financed remedial actions. However, states and Tribes more often operate in the role of a support agency to remain actively involved in site response activities while EPA plays the lead role. To support their involvement as a lead or support agency, EPA provides financial support through cooperative agreements to conduct removal, site assessment, remedial, and enforcement projects and for core infrastructure activities.

Under core program cooperative agreements, EPA provides non-site specific funds to develop, maintain and enhance state and Tribal capacity to manage and implement the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) responses. EPA currently has core program cooperative agreements with 46 states and 55 Tribes or Tribal consortia. Activities funded under the core program cooperative agreements include: 1) developing procedures for emergency response and long-term remediation (e.g., health and safety plans, quality assurance project plans, and community relations plans); 2) satisfying all Federal requirements and assurances (e.g., fiscal and contract management activities for CERCLA); 3) providing legal

assistance (e.g., coordinating applicable or relevant and appropriate requirements (ARAR) identification); and 4) training staff to manage publicly-funded cleanups.

Across the country, thousands of Federal facilities are contaminated with hazardous waste, military munitions, radioactive waste, fuels, and a variety of other toxic contaminants. These facilities include many different types of sites, such as formerly used defense sites (FUDS), active, closing and closed installations, abandoned mines, nuclear weapons production facilities, fuel distribution areas, and landfills. EPA's Federal Facilities Restoration and Reuse Office works with the Department of Defense (DOD), the Department of Energy (DOE), other Federal agencies, states, Tribes, and the public to find protective, creative, and cost-effective cleanup solutions, while encouraging restoration and reuse. The Federal Facilities program provides technical and regulatory oversight at Federal facility sites to ensure protection of human health, effective program implementation, and meaningful public involvement. The Agency encourages citizen involvement by working with DOD to establish Restoration Advisory Boards and DOE to establish Site Specific Advisory Boards.

There is a rising demand for EPA's involvement in DOD's Military Munitions Response and FUDS programs. DOD has estimated that millions of acres of training ranges in the United States and its territories are contaminated with military munitions. By their nature, military munitions (unexploded ordnance, buried munitions, and reactive or ignitable soil) present explosive, human health, and environmental risks. When disturbed, munitions may explode causing immediate death or disablement to those nearby. The different types of military munitions vary in their likelihood of detonation. EPA is working on several initiatives with DOD, the states, and Federal Land Managers to help build DOD's Military Munitions Response program. Over the past several years, EPA has increased its focus on environmental investigations and cleanups of privately-owned FUDS. FUDS are sites not currently owned by DOD (this includes FUDS owned by the states, Tribes, cities, and other governmental entities, as well as individuals, corporations, etc.). The Agency is working on several initiatives with the United States Army Corp of Engineers, states, and Tribes in the identification and cleanup of over 9,000 FUDS nationwide.

The Superfund Federal Facilities Response program works on a large number of ongoing projects: 488 remedial investigations/feasibility studies, 74 remedial designs, and 212 remedial actions. In many cases, Federal facilities face unique challenges with types of contamination (e.g., radiation, military munitions), the size of the facility (e.g., DOE's Hanford is over 500 square miles), or the complexities of reuse related to environmental issues (e.g., base closure).

EPA partners with other federal agencies, states and local governments, and private industry to fulfill superfund program priorities when a site is radioactively contaminated. Under CERCLA, radioactively contaminated sites are addressed in a manner consistent with how chemically contaminated sites are addressed, accounting for the technical differences. The Radiation program provides radiological scientific and technical expertise and leadership in evaluating projects and providing field and laboratory support.

EPA has significantly improved the Superfund program largely as a result of reforms and reinvention continuously implemented since 1989 (e.g., "enforcement first", "worst sites first").

These efforts will continue in 2003. Over the years, Superfund has amassed many noteworthy achievements. Key accomplishments through the end of 2001 include: 1) establishing 84 community advisory groups at sites across the country; 2) reviewing 59 new site remedy decisions for an estimated savings of over \$80,000,000 (FY 2000); 3) saving more than \$1.3 billion in future costs from updating over 350 existing remedies (FY 2000); 4) evaluating over 30 planned projects to establish funding priorities based on site risks; and 5) archiving over 32,700 CERCLIS sites to help promote the economic redevelopment of these properties. Superfund has successfully integrated many of its reforms into the program, and these fundamental changes are continuing to produce positive results. EPA will continue its reform efforts in FY 2003, and will incorporate lessons learned through reforms into its FY 2003 themes of revitalization and one cleanup program.

In FY 2003, the Superfund redevelopment initiative will support the Agency theme of revitalization, coordinating a national effort to facilitate the return of Superfund sites to productive use. EPA is increasingly aware of the importance of fully exploring future use opportunities at Superfund sites with its partners before selecting and implementing a cleanup remedy. As a result, Superfund sites that were once thought to have no future use potential are now being “recycled” back into productive use. EPA has compiled a list of over 260 Superfund sites that have been recycled for numerous purposes. For example, more than 60,000 acres are now in ecological or recreational use at these sites. Additionally, more than 15,500 jobs, representing approximately \$500,000,000 in annual income, are located at sites that have been recycled for commercial use. Under this initiative EPA will continue to focus its efforts on the potential reuse of Superfund sites and involve its partners to determine future uses of sites. EPA can then select, design, and implement cleanups that are protective of human health and the environment consistent with chosen future uses. EPA has given communities at 50 pilot sites up to \$100,000 in direct financial assistance and/or services. EPA will assess the impacts from these pilots on the Superfund program and their potential to facilitate site reuse following clean-up. By the end of FY 2003, EPA expects to have completed reuse plans for all 50 of the pilot sites.

In an effort to better implement the Agency’s Quality Assurance Order (EPA Order 5360.1 A2 May 2000), EPA is enhancing the quality management activities of its Superfund program office. This work entails the implementation of a quality management plan based on the EPA Order. Specific enhancement of standard operating procedures, guidance for the development and application of models, training for quality related activities, and other activities will aid in promoting quality. The quality management plan will initiate a continuing process to improve environmental cleanup decisions. These activities will continue to promote cross program coordination so that Superfund cleanup efforts will reflect increasing progress toward consistency and transparency across programs that is needed to support the goal of one cleanup program. The maintenance of up-to-date standard operating procedures allows EPA to continue to take immediate actions to address Homeland Security threats and other responses that require quality assurance procedures for the collection and assessment of data to support decisions on hazards and cleanup. Finally, these quality assurance activities support revitalization efforts through the establishment of transparent and consistent standards for environmental cleanups.

Activities to establish consistent Quality Assurance processes among EPA, DOD and DOE will continue in FY 2003. An Intergovernmental Data Quality Task Force (IDQTF) has completed

development of a *Uniform Federal Policy for Implementing Quality Systems*. The Task Force is chaired by the Director of the Federal Facilities Restoration and Reuse Office. This policy will form the basis of a DOD-wide quality system and is under consideration as the basis of a DOE-wide system. EPA and DOD are negotiating a Memorandum of Understanding on implementation of the Policy.

The IDQTF has also released a draft *Uniform Federal Policy for Quality Assurance Project Plans* and requested review and comments from DOD, DOE, the Association of State and Territorial Solid Waste Management Officials, and EPA Headquarters and Regional offices. The Task Force feels the use of this policy will promote consistency and uniformity in planning data collection. The anticipated results include improved data quality and cost and time savings in the future. While these policies are based on a national consensus standard, *Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs (ANSI/ASQC E-4)*, agreement between Federal agencies to adopt specific procedures is a new and innovative approach in the quality arena. These initiatives will also support compliance with the guidance issued by the Office of Management and Budget on January 3, 2002 entitled "Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility and Integrity of Information Disseminated by Federal Agencies."

Federal Preparedness and Homeland Security

In support of Homeland Security, the Environmental Response Team Center West (ERTC-West) will provide emergency response resources to support FBI-led response teams in a terrorism event; response action includes threat assessment, site evaluation and removal actions, agent identification, hazard detection and reduction, environmental monitoring, decontamination and long term site restoration. ERTC-West will provide technical assistance in hazardous material emergencies, radiation emergencies and enforcement of environmental regulations. ERTC -West will also provide technical assistance on remedial actions for immediate and long-term activities at oil spill sites and for designing and implementing plans for monitoring air, water and sensitive habitats. ERTC-West will maintain an emergency response activation system to assist the EPA Western Regions and program offices in responding to environmental emergencies and uncontrolled oil and hazardous wastes sites. The ERTC-West will also conduct training for Federal, state and local government officials and private industry representatives in the latest oil and hazardous substance response technology.

In alignment with the Agency's Homeland Security program, EPA supports a highly effective national emergency preparedness and response capability. Under the National Response Team (NRT)/Regional Response Teams (RRTs) and the Federal Response Plan (FRP), the Federal government helps states and cities address major incidents that are beyond their capabilities. EPA chairs the NRT, co-chairs the 13 RRTs throughout the U.S. and is the lead agency for Emergency Support Function 10 (hazardous materials) under the FRP. The NRT/RRT integrates the actions of all Federal partners (comprised of 16 Federal agencies) to prevent, prepare for and respond to hazardous substance, and terrorist attacks that involve hazardous substances and weapons of mass destruction releases.

In the aftermath of the terrorist attacks of September 11 and the subsequent anthrax incidents nation-wide, EPA demonstrated its leadership as head of the NRT. EPA's Superfund Program OSCs responded to New York at Ground Zero within hours of the attack to monitor for contaminants in the air and water, assist in the management of wastes and conduct cleanup and decontamination; these operations have been sustained for months by drawing on EPA's response resources from throughout the country. OSCs were also present at the Pentagon to provide technical assistance to the first responders. EPA has also been involved in the assessment and decontamination of numerous sites and facilities contaminated with anthrax including the congressional office buildings on Capitol Hill and has provided substantial technical support to the United States Postal Service and other Federal facilities at anthrax sites across the country.

The FRP provides for the coordination of Federal operations and the delivery of Federal assistance to states to help them deal with the consequences of significant disasters, including terrorist acts. The FRP is also linked to national security and Homeland Security requirements defined by Presidential Decision Directives (PDDs), including:

- C *Continuity of Operations (COOP) Program.* The Presidential Decision Directive (PDD) #67 requires all Federal Executive Branch departments and agencies to have in place a viable capability to ensure the performance of their essential functions during any emergency or situation that may disrupt normal operations. During FY 2003, EPA will conduct individual and team training, testing of alert and notification procedures, and an internal headquarters exercise at the designated alternate facility to enhance the operational capabilities of the Agency's COOP team. One key lesson learned from the September 11 attacks was the importance of alternate facilities for regional operations, since EPA's Region 2 office was severely affected for weeks after the World Trade Center incident. The Agency will refine all its COOP plans (Headquarters and Regional) and examine the capabilities of, and upgrade Headquarters and Regional alternate facilities.
- C *Critical Infrastructure Protection.* PDD #63 requires EPA (and other Federal agencies) to strengthen Agency and stakeholder defenses against assaults on critical infrastructures, including cyber systems. The EPA is working with the Critical Infrastructure Assurance Office (CIAO) within the Office of Homeland Security to identify its critical infrastructure under Project Matrix. Project Matrix will also identify interrelationships of EPA's assets with critical infrastructure of other Federal departments and agencies. The Agency will take appropriate action to minimize potential threats to its critical infrastructure and to minimize the impact of any attack. Among the areas of interest to CIAO as probable critical infrastructure, as demonstrated by their reaction to the September 11 attacks and the anthrax exposures, are EPA's hazardous waste response resources, both response personnel and equipment.
- C *Homeland Security Emergency Preparedness.* PDDs #39 and #62 define Federal agency roles during responses to terrorist attacks. EPA is directed to provide technical support to the FBI during the crisis management phase and to be the lead agency for mitigation of environmental hazards during the consequence management. In implementing this responsibility, EPA integrates prevention, preparedness and response actions within the

National Response System and coordinates with and provides assistance to state Emergency Response Commissions and Local Emergency Planning Committees.

In FY 2002, the Homeland Security supplemental budget provided EPA with resources to increase response capability and capacity with additional preparedness and response personnel, equipment and training for Regional and Headquarters programs. In FY 2003 the Agency will continue to develop its Homeland Security preparedness and response program to provide a national capacity to respond to incidents of terrorism. EPA efforts will focus its efforts on the following key areas:

- Operating of a West Coast Environmental Response Team (ERT). The ERT is EPA's center of expertise for environmental emergency response, providing state-of-the-art air monitoring, hazard assessment and remediation science and engineering services to EPA regional offices and other Federal response agencies. EPA's existing ERT is based on the East Coast with a small branch in the midwest. The West Coast ERT will allow the Agency to provide critical rapid response support to regions in the western part of the country.
- Enhancing the readiness capabilities of EPA's responders to handle the risks associated with chemical, biological and radiological substances.
- Providing advanced training to all OSCs and other Federal, state and local responders to deal with the added dangers of chemical, biological, and radiological terrorist incidents.
- Developing and implementing an agency-wide exercise program focused on terrorism preparedness and response that will include all regions, Headquarters, and ERT to ensure that Standard Operating Procedures (SOPs), training, and equipment are tested and validated. This program will also enhance EPA's mandatory participation in interagency terrorism exercises, such as TOPOFF II, a government-backed Homeland Security exercise.
- Purchase state of the art response equipment for EPA OSCs and response contractors (e.g., personal protection, field analysis, monitoring, decontamination, and communications equipment).
- Assist state and local emergency managers to include terrorism in local emergency response plans. At the Federal level participate as a full Federal partner to the Office of Homeland Security in developing a cohesive national Homeland Security strategy. This includes working with other Federal Agencies to coordinate national preparedness efforts and participate in National Security Special Events.

Radiation Guidance and Support

In 2003, EPA will provide national level guidance on the risks posed by radioactive materials in the environment including technical guidance for conducting risk assessments in order to limit public and environmental exposure to radiation. EPA will accomplish this by working with the

public, industry, states, tribes and other government agencies to use information systems and to inform and educate people about radiation risks and promote actions that reduce human exposure. EPA, in partnership with other Federal agencies, will promote the management of radiation risks in a consistent safe manner at Superfund, DOE, DOD, state, local and other Federal sites by:

- Evaluating human health and environmental risks from radiation site exposure, developing models of the environmental transport of radionuclides, and providing a basic understanding of the biological effects of radiation.
- Developing risk assessments, remediation technologies, and measurement and information systems.
- Providing training and direct site assistance including laboratory, field and risk assessment support at sites with actual or suspected radioactive contamination.
- Develop and participate in Homeland Security training exercises and other preparedness activities
- Represent EPA in Homeland Security international and national planning meetings.

The radiation program also maintains an on-going capability to provide radio analytical and mixed waste analytical data on environmental samples to support site assessment and cleanup activities. Finally, EPA coordinates with other nations on select radiological issues, including risk assessment methodologies and risk management approaches.

Superfund Enforcement

The Superfund enforcement program is critical to the Agency's ability to cleanup the vast majority of the nation's worst hazardous waste sites. In FY 2003, EPA will continue its successful emphasis on completing construction at Superfund sites by obtaining commitments from PRPs to conduct new remedial actions at non-Federal facility sites and ensuring Federal facility with CERCLA agreements.

The Superfund enforcement program has successfully encouraged or compelled PRPs to undertake or fund approximately 70% of new remedial construction work at non-Federal facility Superfund sites in recent years. The program focuses on the following efforts: 1) maximizing PRP participation in conducting or funding response actions while promoting fairness in the enforcement process; 2) recovering costs from PRPs when EPA expends funds from the Superfund Trust Fund; and 3) negotiating agreements with Federal facilities for NPL site cleanup.

The Superfund program emphasizes "enforcement first" to ensure that sites for which there are viable responsible parties are cleaned up by those parties. In tandem with this approach, various Superfund reforms are being implemented to increase fairness, reduce transaction costs and promote economic redevelopment. The Agency provides funding to the Department of Justice (DOJ) through an interagency agreement (IAG) to assist EPA Superfund in enforcement efforts.

The Superfund program and its stakeholders have benefitted from enforcement reforms implemented in recent years. These reforms include undertaking early, expanded PRP searches and investigations to enable "enforcement first" to occur and develop sufficient information to make

orphan share determinations; making orphan share offers at all eligible sites; expediting negotiations to facilitate early de minimis settlements; settling with parties with limited ability to pay; making more effective and widespread use of Alternative Dispute Resolution (ADR); issuing administrative orders to the maximum practicable number of PRPs at a given site; and creating site-specific special accounts.

In FY 2003, the Agency will negotiate remedial design/ remedial action cleanup agreements at sites and will also achieve removal agreements at hazardous waste sites. Where negotiations fail, the Agency will take either unilateral enforcement actions to require PRP cleanup or use Trust Fund dollars to remediate sites. When Trust Fund dollars are used to cleanup sites, the program will take cost recovery actions against PRPs to recover expenditures.

Institutional controls are a critical component of many response actions selected by EPA to ensure that property is used and maintained in an appropriate manner after construction of the selected cleanup is complete. The Superfund program will oversee the implementation and enforcement of institutional controls following the completion of construction. Furthermore, response work will be undertaken, in accordance with existing agreements or through additional negotiations, when found to be necessary through five year reviews.

EPA will continue its efforts in Federal facilities administrative activities related to CERCLA § 120 agreements. CERCLA § 120 requires that for all Federal facility sites on the NPL an IAG be signed by all appropriate parties which provide enforceable schedules for the progression of the entire cleanup. For Federal facility NPL sites, the signing of an IAG and oversight of its implementation ensures a protective cleanup at a timely pace. EPA will monitor milestones in existing IAGs, resolve disputes, and oversee all remedial work being conducted by Federal facilities. EPA will work with affected agencies to resolve outstanding policy issues relating to the cleanup of Federal facilities. For FY 2003, EPA will initiate negotiations for an IAG at 100% of Federal facility Superfund sites within 18 months after final listing on the NPL.

In FY 2003, the Superfund cost recovery program will recover monies expended from the Trust Fund from viable responsible parties. Where settlement negotiations and previous enforcement actions have failed to achieve PRP response, and Trust Fund dollars are used to cleanup sites, the program will take cost recovery actions against PRPs to recover expenditures. By pursuing cost recovery settlements, the program promotes the principle that polluters should pay cleanup costs at sites where they caused or contributed to the contamination and maximizes the leverage of the Trust Fund to address future threats posed by contaminated sites. Trust Fund expenditures will be recouped through administrative actions, CERCLA § 107 case referrals, and through settlements reached with the use of alternative dispute resolution.

The enforcement program's involvement in case referrals and support include case development and preparation, referral and post-filing actions. The program will also provide case and cost documentation support for the docket of cases currently being worked on by DOJ. The enforcement program will meet cost recovery statute of limitation deadlines, resolve cases, and issue bills for oversight and make collections in a timely manner.

Other Federal Agencies

Other Federal agencies contribute to the Superfund program by providing essential services in areas where EPA does not possess the needed specialized expertise. Contributors include the Department of Interior, the National Oceanic and Atmospheric Administration, the Federal Emergency Management Agency, the Occupational Safety and Health Administration, the United States Coast Guard. Some of the essential services performed by these Federal agencies include the following: 1) The Department of Interior provides response preparedness and management activities (assistance on incidents and sites and training on natural resource issues) that support the National Response System including the National Response Team, Regional Response Teams, OSCs, and Remedial Project Managers (RPMs); provides trustee assistance and damage assessment capability activities that increase the capability of Federal, state and Indian Tribe trustees to assess damages for natural resources injured or lost as a result of hazardous substances releases; and provides scientific support to develop ways to include natural resource restoration in removal actions and 2) FEMA provides technical assistance to OSCs and supports the National Contingency Plan and the National Response System through preparedness exercises; develops and coordinates training programs for state and local governments through participation on the National Response Team and Regional Response Teams; provides financial assistance for hazardous materials training exercises; and maintains regional libraries for hazardous material training information.

Overview of Other Federal Agency Funding

Agency	FY 2002 Enacted	FY 2003 Request
DOI	\$997,800	\$997,800
FEMA	\$1,097,600	\$1,097,600
NOAA	\$2,444,600	\$2,444,600
OSHA	\$648,600	\$648,600
USCG	\$5,487,900	\$5,487,900
TOTAL	\$10,676,500	\$10,676,500

Brownfields

Brownfields are abandoned, idled, or under-used industrial and commercial properties where expansion or redevelopment is complicated by real or perceived contamination. Brownfields properties are not traditional Superfund sites as they are not generally highly contaminated and present lesser health risks. However, economic changes over several decades have left numerous communities with these contaminated properties and abandoned sites. In fact, the General Accounting Office has estimated that over 450,000 brownfields properties exist. Concerns about environmental liability and cleanup, infrastructure declines, and changing development priorities have worsened the situation. The primary goal of the EPA Brownfields program is to provide states, Tribes and local governments with the tools and financial assistance to assess, clean up, and redevelop brownfields properties. The Agency's FY 2003 request includes an additional \$102,000,000 investment in brownfields, which provides for new and supplemental assessment grants, Brownfields cleanup revolving loan fund (BCRLF) grants, cleanup grants, funding directly to states and Tribes to support the state voluntary cleanup programs, and targeted assessments.

Increased funding will allow for more funds to be leveraged, more jobs to be created, and more grants to receive assistance each year. By the end of FY 2003, 456 assessment grants will have been awarded, with 74 new and 52 supplemental newly announced that fiscal year. In FY 2003, 33 BCRLF grants will be funded for up to \$1,000,000 per eligible state, Indian Tribe or local government entity to clean up brownfields sites and, for the first time, cleanup grants will be awarded up to \$200,000 per site. It is estimated that cleanup funding might be available for up to 25 sites combined with the BCRLF grant programs.

The Small Business Liability Relief and Brownfields Revitalization and Environmental Restoration Act (H.R. 2869), has authorized, for the first time, the cleanup of petroleum sites. The \$30,000,000 requested increase would clean up a portion of the estimated 200,000 abandoned petroleum tanks found at sites. This represents a great opportunity for the Administration to address a major regulatory gap in the current Brownfields program created by Superfund's petroleum exclusion. These resources would support approximately 50 communities to assess and clean up abandoned gas stations within their Brownfields areas in conjunction with the current brownfields

assessment and cleanup programs.

The Agency provides funding for site assessment demonstration grants of up to \$200,000 each. Recently, EPA has made supplemental funding available to a small subset of these grants, who have accomplished a high number of assessments, cleanups and redevelopments. These grants provide EPA, states, local governments, and Federally recognized Indian Tribes with useful information and new strategies for promoting a unified approach to environmental site assessment and characterization, and redevelopment. EPA has awarded 399 two year assessment grants to communities to assist localities in assessing contamination at brownfields sites. These grants include supplemental, greenspace and Showcase assessment-related activities. More than 2,600 properties have had environmental assessments completed under the assessment program since program inception. In FY 2003, the Agency will continue to fund grants. EPA designed this assistance to enhance state, local and Tribal governments' capacity to assess and cleanup properties under state and Federal environmental authorities, and facilitate the redevelopment and reuse of the properties. To date, grants have leveraged over 17,000 cleanup, construction and redevelopment jobs.

Where appropriate, the Agency provides funding for targeted assessments in communities that are not successful in competing for an assessment grant. Site assessments at non-grant Brownfields sites are performed either under existing cooperative agreements with states or through EPA contractors. This activity enjoys wide support from cities and other local communities. This funding provides preliminary assessments and site investigations using standard methodologies established by the American Society for Testing Materials.

To continue EPA's efforts to provide a pattern of interagency collaboration in addressing environmental and economic issues in communities, the Agency and its Federal partners designated 12 new showcase communities in 2001 for a total of 28 showcase communities. These designated Brownfields showcase communities are distributed across the country and vary by size, resources, and community type. The goals of the project are to: promote environmental protection and restoration, economic development, job creation, community revitalization, and public health protection through assessment, cleanup and sustainable reuse of brownfields; link Federal, state, local and non-governmental action supporting community efforts to restore and reuse ; and develop national models demonstrating the positive results of public and private collaboration in addressing brownfields challenges.

The Agency will also award cooperative agreements to capitalize BCRLF grants of up to \$1,000,000 each. All communities with properties are eligible to apply. EPA offers grants to governmental entities which may discount loans to nonprofit or other government entities. This funding enables eligible entities to develop cleanup strategies, make loans to prospective purchasers to clean up properties, and encourages communities to leverage other funds into their revolving loan fund pools. In addition, the Agency awards brownfields job training and development grants at up to \$200,000 over two years to help residents of brownfields communities take advantage of new jobs created by the assessment and cleanup of brownfields.

Funding to support enhancement and development of state and Tribal voluntary cleanup programs (VCPs) has been increased and continues to be a priority in the Agency's attempt to reuse and redevelop properties. EPA provides both monetary and technical/legal assistance to states and Tribes developing and enhancing VCPs. VCPs address contaminated sites which do not require Federal action, but need cleanup before the sites are considered for reuse. EPA believes that building strong and effective state and Tribal programs, such as VCPs, will also complement efforts to address the cleanup of brownfields properties. To date, EPA has signed 18 memoranda of agreement that clarify that the oversight of brownfields cleanups will be the responsibility of the states with programs which meet the six criteria established in the November 1996 voluntary cleanup guidance.

Over the past five years, states, territories, and Tribes have received over \$85,000,000 for assessment demonstration and BCRLF grants, voluntary cleanup programs, and targeted brownfields assessments.

By funding the increased level of grants in FY 2003, a commensurate increase in leveraged investments and jobs in FY 2004 and 2005 will be expected. By the end of FY 2005, the brownfields grants should leverage close to \$7 billion and 25,300 jobs in cleanup, construction, and redevelopment with 3,850 properties assessed, given continued economic conditions.

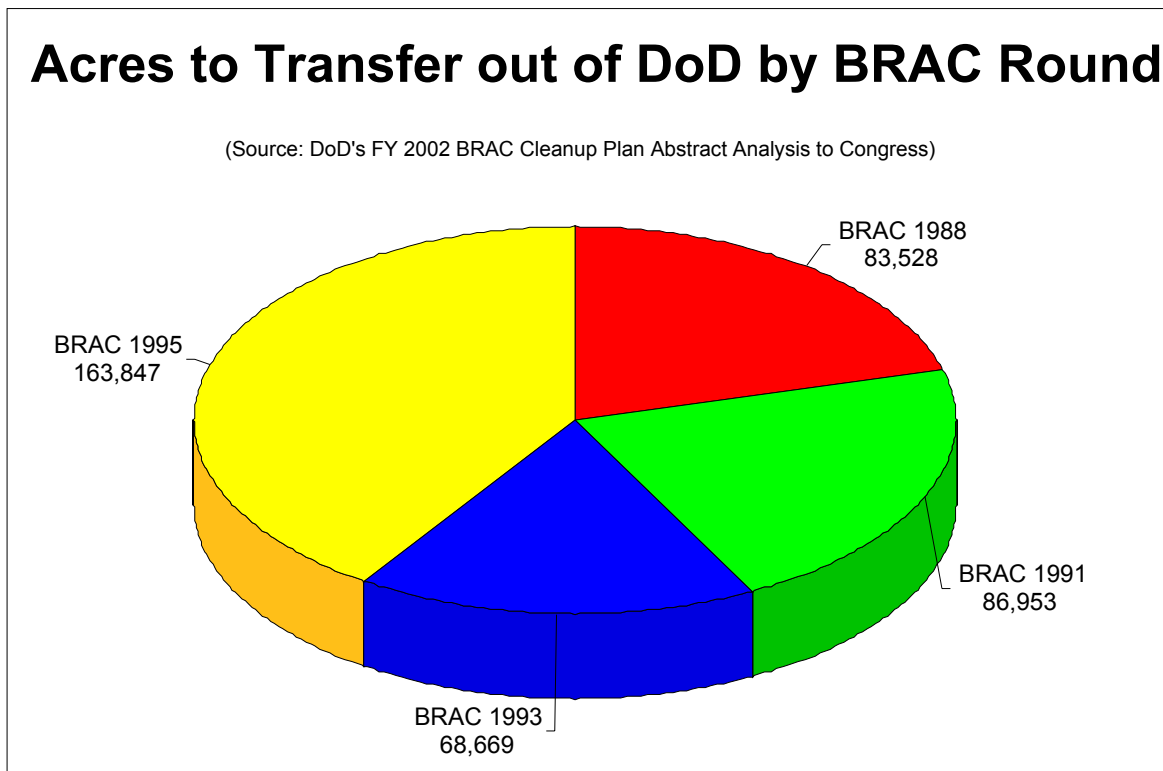
To implement this legislation, the enforcement program will undertake several key activities, such as : issuing regulations describing "all appropriate inquiry"; reviewing site-specific requests from prospective purchasers, contiguous landowners, and other parties; and, developing guidance describing certain federal enforcement actions restrictions at brownfields sites being addressed under state response programs.

Base Realignment and Base Closure

Since 1993, EPA's Superfund Base Realignment and Base Closure (BRAC) program has worked with the Department of Defense (DOD) and the states' environmental programs to achieve the Agency's goal of "making property environmentally acceptable for transfer, while protecting human health and the environment" at realigning, closing or closed military installations. These activities complement Agency themes of one cleanup program and revitalization. Between 1988 and 1995, 497 major military installations representing the Army, Navy, Air Force, and Defense Logistics Agency were slated for realignment or closure. Of these 497 BRAC installations, 204 require some type of environmental restoration. Of the installations requiring environmental restoration, 108 have been designated as Fast-Track installations. The four rounds of BRAC are generally referred to as BRAC 1988, BRAC 1991, BRAC 1993, and BRAC 1995, indicating the year in which each cluster of military installations were selected for realignment or closure.

The Fast-Track program strives to make parcels available for reuse as quickly as possible by transfer of uncontaminated or remediated parcels, by lease of contaminated parcels where cleanup is underway, or by "early transfer" of contaminated property. Since 1993, EPA and DOD have addressed lease-related concerns at BRAC sites by preparing findings of suitability to lease or

transfer that summarize any and all environmental information upon which DOD relies while establishing environmental restrictions in leases on property conveyances necessary to protect human health and the environment. According to DOD's recent FY 2002 BRAC Cleanup Plan Abstract Analysis to Congress, of the 390,270 acres planned for transfer or lease under the BRAC Fast-Track program, 31 percent (122,351 acres) of the acres were transferred by the end of FY 2000 and 16 percent (62,315 acres) leased. The majority of BRAC acres planned for transfer from DOD are intended for non-Federal entities. A major success for the Fast-Track program is the formation of base cleanup teams (BCTs) at the Fast-Track designated installations. The teams, which include environmental experts from EPA, DOD, and states, engineer common sense approaches to cleanups by developing common goals and priorities. The Agency empowers the team to integrate base reuse priorities while making decisions to expedite the process of accelerating cleanup. To further assist with Fast-Track cleanups, EPA engages in public participation by working with DOD to establish restoration advisory boards (RABs) at military installations. RABs foster teamwork by bringing members of the community together with military officials and government regulators to discuss cleanup issues.



The current EPA/DOD Memorandum of Understanding which provides support to EPA for the Base Realignment and Closure Fast-Track Cleanup program, expires on September 30, 2002. Although the President's Budget Blueprint contemplates additional BRAC rounds, the Agency's focus is meeting the requirements of the existing BRAC bases and putting those facilities back into productive reuse. EPA and DOD are currently discussing the Agency's future involvement in the BRAC program.

Resource Conservation and Recovery

For decades, many industrial facilities in this country mismanaged their hazardous wastes. The Superfund program addresses some of these facilities, particularly those that have been abandoned or closed. A significantly larger number, however, fall under the Resource Conservation and Recovery Act (RCRA) corrective action program that EPA and the authorized states administer. Currently, thirty-nine states and territories are authorized to implement the corrective action program. These include some of the most intractable and controversial cleanup projects in the country. Approximately 3,500 industrial facilities must undergo a cleanup under the RCRA program. Out of these facilities, the Agency has targeted over 1,700 facilities as high priority – where people or the environment are likely to be at significant current or future risk. The Agency is pursuing a strategy for addressing the worst facilities first, as reflected in the Agency’s annual performance goal. This focus on near- term actions which will mitigate actual or imminent human exposure problems and stop further spread of contaminants in the environment has resulted in over 600 of the 1,700 target facilities achieving their environmental indicator goals. The RCRA corrective action program supports the Agency’s one cleanup program theme.

Over the past several years, the Agency has been successful in implementing administrative reforms that streamlined the corrective action program and improved overall implementation. The reforms have been effective in changing the way program implementors and stakeholders interact, which has had a positive impact on moving facilities toward cleanup goals. Given the many challenges of meeting the environmental indicator targets, looking toward final cleanup, taking advantage of redevelopment opportunities, and cleaning up Federal facilities, maintaining strong partnerships with all relevant stakeholders will continue to be a priority for the program in FY 2003.

Despite the success of the administrative reforms to date, there remain enormous challenges to for the corrective action program. Groundwater issues present very specific challenges, for example, the extent and severity of the contamination, complex technical issues, and the expense of groundwater cleanups. Also, many of the high priority facilities that have not yet met the environmental indicator goals are extremely large and complicated sites that may not make progress in cleanups at the same pace as those facilities that have already met the goals. These issues, as well as others related to defining “completion” of cleanup and implementing institutional controls, have surfaced during stakeholder meetings EPA hosted across the country in 2001. EPA will continue working in partnership with the stakeholders to further explore these areas. Although the reforms the Agency has implemented to date help address these larger challenges in part, there will be a need for continued administrative improvements.

In FY 2003, the Agency will continue to stress meeting the environmental indicator goals, but will also place added emphasis and resources on moving facilities toward final cleanup. This means working in partnership with the authorized states and the regulated community to resolve some very challenging policy and technical issues, such as those associated with setting final cleanup goals for groundwater, indoor air exposures, and groundwater-to-surface water pathways. Since there is not a one-size-fits-all approach to cleanups, close working partnerships will allow all parties to fully explore flexible, common sense approaches.

In support of the revitalization theme, the Agency will capitalize on the results of the RCRA Showcase Pilots conducted in 2001 and 2002, applying the lessons learned on a wider scale in order to facilitate redevelopment of RCRA brownfields sites. By sharing the innovations demonstrated through those pilots, others may learn of new approaches that are appropriate for or adaptable to their situations. The Agency will target other sites and surrounding communities with focused attention and access to RCRA Brownfields expertise. EPA will continue the Targeted Site Effort (TSE) and the RCRA Brownfields program to help “break the logjams” at sites that have significant redevelopment/reuse potential. The efforts undertaken to date have influenced a culture change whereby, in many cases, facility owners or operators, and the communities pursue redevelopment as a primary objective of the cleanups. In FY 2003, EPA will continue to advance that perspective by promoting and implementing its Revitalization Initiative.

In FY 2003, the Agency will continue to devote special attention to Federal facilities permitted under RCRA. The Agency and the authorized states have worked with our Federal partners to more effectively communicate cleanup goals and facilitate Federal facilities’ cleanups. For example, the Agency will foster dialogue with the authorized states and the Federal facility community to explore such topics as innovative approaches to cleanups and regulatory flexibility. Lessons learned through pilot programs in other industries will be applied to Federal facilities, leading to greater efficiencies in cleanups.

Training and outreach are integral parts of the corrective action program’s activities. The way program implementors and the regulated community do business, and the way in which the public participates in cleanup decisions being made in their communities has been positively influenced through the reforms. The Agency will build on the changes in culture that have started to happen, promoting flexibility in program implementation so that people can do what makes the most sense in a given situation, and encouraging more frequent communications among all parties.

In addition, EPA is requesting \$8,000,000 for the assessment and potential remediation of Homestake mine in the State of South Dakota to be funded within the STAG appropriation.

Research

This research supports the Agency’s objective of reducing or controlling potential risks posed to human health and the environment through better waste management and restoration of abandoned waste sites. Research related to hazardous substances (Superfund), leaking underground storage tanks (LUST), and oil spills fall within this objective.

Hazardous substance research focuses on improving scientific understanding of the potential human health and ecological risks that may be posed by contaminated groundwater, soils, and sediments, including: 1) the presence of highly toxic site contaminants, such as heavy metals, persistent bioaccumulative toxics (PBTs), and volatile organic chemicals; 2) the potential for multiple routes of exposure; and 3) the large number of contaminated sites, many of which cover large areas, resulting in high exposure (particularly to ecosystems). Contamination of groundwater and sediments in the riparian zone (i.e., river and stream banks) is also of considerable concern due to its importance to humans and ecosystems. The extent and geological, biological and chemical

complexity of many of these sites present uncertainties when determining risk, as well as in finding accurate, low-cost techniques for site characterization and remediation.

Groundwater, Soils and Containment

The Agency supports an integrated research program of exposure, risk assessment, and risk management in order to understand the processes that govern contaminant transport and fate, and to assess and develop remediation and characterization/monitoring technologies, especially their cost-effectiveness.

In FY 2003, exposure research will include non-invasive geophysical techniques that provide methods of subsurface site characterization and contaminant evaluation, yielding a greater ability to make sound waste management decisions. Significant effort will be directed toward experiments at a unique field test facility for evaluating these technologies under dense non-aqueous phase liquid (DNAPL) controlled-spill conditions. A major product in FY 2003 will be a report on the use of borehole dielectric techniques for the detection of non-aqueous phase liquids, above and below groundwater at contaminated waste sites.

Exposure research will also focus on the improved collection of soils contaminated with volatile organic compounds (VOCs). This research will examine VOC releases due to sample disturbance, compositing soils contaminated with VOCs, improved soil gas sampling techniques, and the quality of common analytical methods for VOCs in soils. In FY 2003, work will continue on a prototype device for sampling VOCs from contaminated soils around Superfund sites. This device will greatly increase the accuracy of VOC measurements in soils by minimizing losses during sample collection and shipment.

Other exposure research will develop and apply advanced instrumentation for soils, sediments, and groundwater characterization and monitoring that focuses on methods to provide high-quality data rapidly with simple and rugged protocols. Emphasis will be on technologies that can be used to perform analysis in the field, determine pollutants that are intractable by conventional methods, and improve risk assessments by providing specific information on the most hazardous forms of pollutants. Pollutants of primary interest are polycyclic aromatic hydrocarbons (PAHs), chlorinated organics, and toxic metals. In FY 2003, EPA will produce electrochemical techniques to characterize and speciate Chromium III and VI. These methods will provide rapid and cost-effective analytical tools for Superfund site managers, regional offices, and other stakeholders.

Risk assessment research focuses on both human and ecological health and aids in the determination of risk management options as well as characterization of contaminants. Human health research involves developing methodologies, models, and factors that enable risk assessors to develop more accurate quantitative estimates of the likelihood of harm that may result from various contaminated media. Major areas of emphasis for FY 2003 will include: developing statistical distributions for exposure factors (home gardening is a new area); further refining and validating the biokinetic models for lead and other toxic metals; developing better models and methods for dermal exposure; and completing health and exposure assessments for specific contaminants.

Ecological risk assessment research develops methodologies and factors that can enable ecological risk assessors to estimate the amount of soil-borne contamination that will be biologically “available” to wildlife. In FY 2003, this research will continue to develop ecological soil screening values for common soil contaminants. These screening values will enable the Agency to make prompt decisions about what levels of contamination are not harmful to human health and/or ecosystems.

The Agency’s risk management research in this area will address priority remediation problems in groundwater and soils, helping to reduce human health and ecosystems exposure to hazardous materials in soils and groundwater by making remediation more efficient and cost-effective. This research evaluates and improves existing remediation techniques as well as develops new clean-up processes.

In the area of groundwater remediation research, the Agency plans to continue work on characterizing DNAPL source zones and on treatment and natural attenuation of inorganic contamination. DNAPLs are a major cause of organic groundwater contamination for which there are few effective commercialized remediation options. Research will also continue on the use of DNAPL-extracting techniques for cleanup processes, as well as on approaches to site cleanup combining multiple treatment processes for site remediation.

Research will continue on the remediation of dissolved inorganic plumes, particularly toxic metals, and related source areas. Field studies on monitored natural attenuation (MNA) of dissolved metals will continue, as will studies of the application of permeable reactive barriers (PRBs) to contaminants such as arsenic and mercury. Major areas of emphasis in FY 2003 will be a multi-agency report of the long-term performance of PRBs; applying PRBs effectively to other contaminants and environments; and improved methods for solid-phase characterization in support of MNA.

In FY 2003, containment research will include work on caps, covers, and vertical barriers for the vadose zone (i.e., the transition zone between the land surface and the water table), as well as fixed barriers and pumping methods for containing contaminated plumes. Research will also include work on data collection and assessment of mature containment systems and long term performance monitoring needs. Guidance documents will be developed to provide information for new construction. Work is expected to be brought to a close on alternative cover system (e.g., vegetative) assessment.

Contaminated Sediments

The Agency has created an integrated research program on contaminated sediments addressing risk assessment, exposure, effects, and risk management issues. This program addresses priority research needs for the assessment and cleanup of sites.

This research will focus on four important goals distilled from recommendations made by the National Academy of Sciences and EPA’s Science Advisory Board and in accordance with the Contaminated Sediments Science Plan: (1) develop scientific models and protocols that better define

the risks to human health and the environment; (2) develop new cleanup alternatives and methods that better evaluate which cleanup alternatives would be most effective; (3) develop techniques and conduct monitoring to document the actual performance of cleanup technologies; and (4) develop better methods and tools to increase community involvement in cleanup activities.

EPA will initiate activities on dermal contact and fish ingestion exposure pathways. Estimates will be made of the amount of sediment that may come into contact with skin from various activities. Exposure models and factors will be developed that accurately predict the amount of contaminated fish and game that might be consumed. Of particular interest are the fish-eating habits of sensitive sub-populations such as subsistence fishermen, certain ethnic groups, and disadvantaged communities.

In FY 2003, research will also investigate the effects of contaminated sediments on the environment, aiding in the development of risk assessments. Efforts will focus on sediments contaminated with persistent, bioaccumulative toxics (PBTs) in the context of the three primary remediation options: natural attenuation, capping, and dredging. Approaches will be developed that predict the biological uptake of chemicals from sediments, movement through the food web, and the effects on top predator fish and fish-eating wildlife. To understand the ecological significance of potential toxic effects, the impacts on critical populations of fish-consuming species will be assessed. These efforts will include understanding the effects of both freshwater and marine contaminated sediments.

Contaminated sediments risk management research will study currently available remediation options, such as dredging and disposal facilities, natural attenuation, and capping. This work will expand and additional sites will be studied to understand the cost-effectiveness and short- and long-term ecological impacts of these options. Contaminants of focus include polychlorinated biphenyls (PCBs), PAHs, and metals. In addition, bench and field work will be conducted on innovative techniques for contaminated sediments cleanup. This work will provide EPA and other stakeholders with better information for making scientifically sound cleanup decisions.

Research will be strengthened or expanded to provide improved and cost-effective monitoring and characterization techniques for sediments to more accurately determine contaminant types, locations, and concentrations. This will provide for improved assessment of risks and risk management approaches. Work will also continue to evaluate existing contaminated sediment fate and transport models.

Research on community involvement will focus on developing ways to measure community preferences and ways to incorporate societal/cultural values into the decision-making process.

Superfund Innovative Technology Evaluation (SITE), Hazardous Substance Research Centers (HSRCs), Oil Spills, and Leaking Underground Storage Tanks (LUST)

Research to reduce or control risks to human health from contaminated sites is also conducted through the Superfund Innovative Technology Evaluation (SITE) program and the Hazardous Substance Research Centers (HSRCs) program. Additionally, the Agency supports

efforts to reduce or control risks from oil spills and leaking underground storage tanks.

The SITE program fosters the development and use of lower cost and more effective characterization technologies and risk management remediation technologies for sediments, soils, and groundwater. The goal of this program is to identify, demonstrate, assess, and distribute information about innovative and alternative environmental technologies to developers, remediation site managers, and regulators, yielding more efficient characterization and remediation processes. In FY 2003, the Agency will initiate studies of technologies dealing with priority remediation problems, including sediments, DNAPLs, and Brownfields. The annual SITE program report will be produced, providing information to Congress and the public/private sectors on field evaluation results.

In FY 2003, the Agency will also continue to support the Hazardous Substance Research Centers (HSRCs): five multi-university centers focusing on different aspects of hazardous substance management. They bring together researchers from a variety of disciplines to collaborate on research projects of high importance to the Agency (e.g., contaminated sediments).

In FY 2003, oil spills research will involve the development of an oil spill model applicable to near-coastal water and options to clean up fuel and chemical spills on navigable waterways. Efforts will result in an interim report on adapting the oil spill model for Orimulsion (TM) and vegetable oil modeling. Research will also focus on the use of bioremediation on inland waterways spills, improving chemical countermeasures, and evaluating the fate of non-petroleum products (e.g., vegetable oils) spilled on surface waters. Studies will be conducted on fuel mixtures spilled in freshwater and marine environments to understand their fate. An international cooperative study of dispersed oil and non-petroleum oil degradation in cold climates will also be initiated.

Leaking underground storage tanks (LUST) corrective action research looks at cleanup processes for fuels and fuel oxygenates, like methyl tertiary butyl ether (MTBE). This work results in a better understanding of naturally occurring subsurface processes that degrade fuel components; reliable indicators to measure natural attenuation; and models and resource documents to predict the likelihood of site-specific natural attenuation effectiveness. Studies on modeling of contaminant transport and fate, and on oxygenate degradation processes will be integrated to better understand how oxygenates behave in the subsurface. Emphasis will be on developing inexpensive techniques that can be implemented in the near-term to address MTBE-contaminated sites. These studies will provide improved understanding of natural processes that affect MTBE. A report on ex situ treatment of fuel oxygenates will be produced, and work will begin on the development of models for problems resulting from LUST sites.

Homeland Security

The recent events in the aftermath of September 11, 2001 demonstrate the need for a coordinated Federal, state and local response to a wide variety of biological and chemical threats. EPA will provide guidance, technical expertise and support to Federal, state and local governments and other institutions on building contamination (chemical and biological) prevention, treatment and cleanup activities. EPA will conduct the needed research and develop the scientific expertise to

support this effort. The Agency has the expertise and hands-on knowledge to undertake research to evaluate, develop and test technologies and approaches for building decontamination from chemical and biological incidents including those for detection, pre-decontamination assessment, and post-decontamination monitoring. The research would be planned in consultation with the appropriate Agency offices and would include the technology transfer of the verified technologies to the Emergency Response Teams.

Examples of needed research include:

- Technologies for rapid detection and measurement of contaminants to support pre- and post-cleanup monitoring and assessment, worker protection, risk assessment, and early warning of contamination events.
- Technologies for building decontamination including: surface removal/disinfection, air cleaning/filtration, and decontamination of internal drinking water systems, HVAC duct work, etc.
- Technologies and management practices for debris removal, decontamination of clean up equipment, and decontamination and disposal of debris and clean up disposables.
- Development of contaminant transport and fate models for buildings and rapid risk assessment approaches for cleanup operations.
- Implementation of a decontamination technology verification center under the EPA Environmental Technology Verification (ETV) Program to rapidly test and verify the performance effectiveness of newly developed private sector technologies.
- Initiation of a technology transfer program to rapidly disseminate research and technology performance information to emergency response organizations in the form of best practices, design and operational guidance, training, software and other appropriate vehicles.

FY 2003 Change from FY 2002 Enacted

EPM:

- C (+\$26,455,500 and +139.6 FTE) Redirection of resources from Superfund to EPM and increase of resources to implement the Brownfields infrastructure projects and categorical grants authorized under the new Brownfields legislation.
- C (-\$3,300,000, -5.0 FTE) Resources for the FY 2002 Homeland Security supplemental, used for one-time equipment purchases and emergency preparedness training, are not continued in FY 2003.
- C (-\$98,000) Decrease reflects transfer of the Ombudsman to Goal 10.
- C (-\$550,000) The FY 2003 request is \$550,000 below the FY 2002 Enacted budget level due to Congressional earmarks received during the appropriations process that are not part of the FY 2003 President's request.
- C (+\$5,660,900) Resources, dollars and FTE, associated with rent are allocated in proportion

to Agency-wide FTE located in each goal, objective. Resources, dollars and FTE, associated with utilities, security and human resource operations are allocated in proportion to Headquarters FTE located in each goal, objective. Changes reflect shifts in FTE between goals and objectives. Resources, dollars and FTE, associated with contracts and grants are allocated in proportion to Headquarters' contracts and grants resources located in each goal, objective. Changes in these activities reflect shifts in resources between goals and objectives. *(Total changes - rent: -\$3,569,400, utilities: +\$3,468,000, Security: -\$9,103,900. Nominal increases/decreases occurred in human resource operations, grants and contracts related activities.)*

Superfund:

- C (-\$94,813,500, -76.6 FTE) Redirection of the Agency's Brownfields resources from Superfund to the EPM and STAG appropriations.
- C (+\$10,000,000 and +20 FTE) This increase in EPA's Homeland Security program will enhance the skills of the current response workforce to respond to terrorist incidents. Specific efforts include: Establishing a West Coast Emergency Response Team to provide specialized expertise and support to OSCs in the western regions of the country. Additionally, EPA will deliver advanced training, conduct a national EPA event planning/response exercise and purchase state-of-the-art response equipment.
- C (-\$29,000,000) Reduction in support to Homeland Security response investment from FY 2002 Emergency Supplemental level. Primary reductions are to numbers of planned regional response personnel, equipment purchases, and training for Federal and state/local responders.
- C (-\$294,000) Decrease reflects transfer of the Ombudsman to Goal 10.
- C (-\$3,000,000) The FY 2003 request is \$3,000,000 below the FY 2002 Enacted budget level due to Congressional earmarks received during the appropriations process that are not part of the FY 2003 President's request.
- C (-\$5,660,900) Resources, dollars and FTE, associated with rent are allocated in proportion to Agency-wide FTE located in each goal, objective. Resources, dollars and FTE, associated with utilities, security and human resource operations are allocated in proportion to Headquarters FTE located in each goal, objective. Changes reflect shifts in FTE between goals and objectives. Resources, dollars and FTE, associated with contracts and grants are allocated in proportion to Headquarters' contracts and grants resources located in each goal, objective. Changes in these activities reflect shifts in resources between goals and objectives. *(Total changes - rent: -\$3,569,400, utilities: +\$3,468,000, Security: -\$9,103,900. Nominal increases/decreases occurred in human resource operations, grants and contracts related activities.)*

LUST

- (-\$773,000) Decrease reflects funding of the LUST appropriation to match FY 2002 President's budget level.

STAG

- (+170,500,000) Resources provided for Brownfields infrastructure projects and categorical grants authorized under the new legislation
- (+\$8,000,000) Resources provided for assessment and potential remediation of Homestake mine in the State of South Dakota.
- (-\$3,000,000) The FY 2003 request is \$3,000,000 below the FY 2002 Enacted budget level due to Congressional earmarks received during the appropriations process that are not part of the FY 2003 President's request.

Research

S&T

- (-\$5,265,000) The FY 2003 Request is \$5,265,000 below the 2002 Enacted budget due to the Congressional earmarks received during the appropriations process which are not included in the 2003 President's Request.
- (-\$1,000,000) This reduction reflects a one-time accounting adjustment resulting from the Inspector General's audit decision on a grant to Clark Atlanta University.

Superfund

- (+\$73,125,000) This reflects \$75,000,000 in new funding, less the 2.5% tap (\$1,875,000) mandated by the Small Business Innovative Research statute and shifted to Goal 08, Objective 04. The \$73,125,000 will be applied toward new research focusing on Homeland Security issues such as transfer of technologies and guidance on decontamination processes for buildings, evaluating existing and new cleanup and detection technologies, developing risk assessment methodologies, and producing rapid decontamination techniques and technologies for cleanup of contaminated buildings. These research efforts are critical in order to prevent and respond to future instances of bioterrorism.
- (+\$650,000) This increase represents a refocusing of work to risk management research targeted at contaminated sediments issues from work that is being brought to a close on soil remediation activities.
- (-\$650,000) This represents a refocusing from work that is being brought to a close on soil remediation activities to risk management research targeted at contaminated sediments issues.

- (-\$1,152,700) This represents a realignment of Minority Programs from the Superfund (Goal 5, Objective 1) appropriation into the Science and Technology appropriation (Goal 8, Objective 3). This will enhance the program by allowing for a broader scope of work to be done.

Annual Performance Goals and Measures

Leaking Underground Storage Tank Cleanups

In 2003 EPA and its partners will complete 22,500 Leaking Underground Storage Tank (LUST) cleanups for a cumulative total of approximately 313,300 cleanups since 1987.

In 2002 EPA and its partners will complete 22,000 Leaking Underground Storage Tank (LUST) cleanups for a cumulative total of approximately 290,000 cleanups since 1987.

In 2001 19,074 LUST cleanups were completed in FY 2001.

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	
LUST cleanups completed.	19,074	22,000	22,500	cleanups

Baseline: EPA completed a total of 249,760 LUST cleanups from 1987 through 2000.

Superfund Removal Response Actions

In 2003 Conduct 275 Superfund removal response actions for a cumulative total of 7,138 removal response actions since 1982.

In 2002 Conduct 275 Superfund removal response actions for a cumulative total of 6,863 removal response actions since 1982.

In 2001 EPA conducted 302 removal response actions, for a cumulative total of 6,588 over the life of the program.

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	
Removal response actions.	302	285	275	removals
Amount of liquid based waste removed.		no target	no target	gallons
Amount of solid waste removed.		no target	no target	cubic yards

Baseline: EPA completed a total of 6,286 removal response actions from 1982 through 2000.

Superfund Cleanups

In 2003 EPA and its partners will complete 40 Superfund cleanups (construction completions).

In 2002 EPA and its partners will complete 40 Superfund cleanups (construction completions). 47 construction completions were completed in FY 2001.

In 2001 EPA completed construction at 47 sites, achieving 804 construction completions over the life of the program.

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	
Construction completions.	47	40	40	completions

Baseline: EPA completed a total of 757 construction completions from 1982 through 2000.

Superfund Cost Recovery

In 2003 Ensure trust fund stewardship by getting PRPs to initiate or fund the work and recover costs from PRPs when EPA expends trust fund monies. Address cost recovery at all NPL and non-NPL sites with a statute of limitations (SOL) on total past costs equal to or greater than \$200,000.

In 2002 Ensure trust fund stewardship by getting PRPs to initiate or fund the work and recover costs from PRPs when EPA expends trust fund monies. Address cost recovery at all NPL and non-NPL sites with a statute of limitations (SOL) on total past costs equal to or greater than \$200,000.

In 2001

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	
Refer to DOJ, settle, or write off 100% of Statute of Limitations (SOLs) cases for SF sites with total unaddressed past costs equal to or greater than \$200,000 and report value of costs recovered.	97.8	100	100	Percent

Baseline: In FY 98 the Agency will have addressed 100% of Cost Recovery at all NPL & non-NPL sites with total past costs equal or greater than \$200,000.

Superfund Potentially Responsible Party Participat

In 2003 Maximize all aspects of PRP participation which includes maintaining PRP work at 70% of the new remedial construction starts at non-Federal Facility Superfund, and emphasize fairness in the settlement process.

In 2002 Maximize all aspects of PRP participation which includes maintaining PRP work at 70% of the new remedial construction starts at non-Federal Facility Superfund, and emphasize fairness in the settlement process.

In 2001

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	
Ensure fairness by making Orphan Share Offers at 100% of all eligible settlement negotiations for response work.	100			Percent
Provide finality for small contributors by entering into De Minimis settlements and report the number of settlers.	15			Settlements
PRPs conduct 70% of the work at new construction starts	67.3	70	70	Percent

Baseline: In FY 98 approximately 70% of new remedial work at NPL sites (excluding Federal facilities) was initiated by private parties.

RCRA Corrective Action

In 2003 257 (for a cumulative total of 1,252 or 73%) of high priority RCRA facilities will have human exposures controlled and 172 (for a cumulative total of 1,054 or 61%) of high priority RCRA facilities will have groundwater releases controlled.

In 2002 172 (for a cumulative total of 995 or 58%) of high priority RCRA facilities will have human exposures controlled and 172 (for a cumulative total of 882 or 51%) of high priority RCRA facilities will have groundwater releases controlled.

In 2001 EPA exceeded its RCRA corrective action goal for human exposures controlled with an additional 179 facilities, and came close to achieving its goal for groundwater releases controlled with an additional 154 facilities.

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	
High priority RCRA facilities with human exposures to toxins controlled.	179	172	257	facilities
High priority RCRA facilities with toxic releases to groundwater controlled.	154	172	172	facilities

Baseline: EPA established a baseline of over 1,700 high priority corrective action facilities in January 1999.

Brownfield Site Assessment Grants

- In 2003 EPA will provide additional site assessment funding to 74 new sites, and to 52 existing sites, resulting in a cumulative total of 3,350 properties assessed, the generation of 21,300 jobs, and the leveraging of \$5.0 billion in cleanup and redevelopment funds since 1995.
- In 2002 EPA will provide additional site assessment funding to 38 new communities, and to 38 existing communities, resulting in a cumulative total of 3,100 properties assessed, the generation of 19,300 jobs, and the leveraging of \$4.0 billion in cleanup and redevelopment funds since 1995.
- In 2001 FY 2001 third quarter data shows cumulative totals of 2,594 site assessments, generation of 17,307 jobs and leveraging of \$3.7 billion in cleanup and redevelopment funds.

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	
Cumulative leveraging of cleanup and redevelopment funds.	\$3.7 B	\$4.0 B	\$5.0 B	funds leveraged
Cumulative jobs generated.	17,307	19,300	21,300	jobs generated
Cumulative site assessments.	2,594	3,100	3,350	assessments

Baseline: By the third quarter of FY 2000, EPA assessed 2,024 sites, generated 7,446 jobs, and leveraged \$2.8 billion in cleanup and redevelopment funds.

Brownfield Community Support

- In 2003 EPA will provide funding for 30 communities to capitalize revolving loan funds for a cumulative total of 182, provide funding for 10 job training pilots for a cumulative total of 66 and 70% of graduates placed in jobs, and support 28 existing Showcase Communities.
- In 2002 EPA will provide funding for 28 communities to capitalize revolving loan funds for a cumulative total of 152, provide funding for 10 job training pilots for a cumulative total of 56 and 70% of graduates placed in jobs, and support 28 existing Showcase Communities.
- In 2001 46 communities capitalized 23 new and append 2 existing revolving loan funds. EPA awarded 12 additional showcase community designations, supporting a total of 28 showcase communities. Additionally, EPA awarded 9 new job training pilots.

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	
Showcase communities.	28			communities
Communities served by cooperative agreements to capitalize revolving loan funds.	46			agreements
Job training pilots.	9			pilots
Cumulative communities served by cooperative agreements to capitalize revolving loan funds.		152	182	communities
Cumulative job training pilots.		56	66	pilots
Cumulative showcase communities.		28	28	communities
Percentage of trainees placed.		70	70	percent

Baseline: By the end of 2000, EPA signed 104 agreements for capitalization of revolving loan funds, awarded 37 job training pilots, and provided continued support to 16 showcase communities.

Superfund Intermediate Cleanup Indicators

In 2003 EPA will increase the number of Superfund hazardous waste sites with human exposures and migration of contaminated groundwater under control.

In 2002 EPA will increase the number of Superfund hazardous waste sites with human exposures and migration of contaminated groundwater under control.

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	
Superfund hazardous waste sites with human exposures controlled.		no target	10	sites
Superfund hazardous waste sites with groundwater migration controlled.		no target	10	sites

Baseline: In FY 2001, EPA established a preliminary baseline of 1450 final and deleted NPL sites to monitor for human exposures under control. 1126 (78%) of these 1450 sites have human exposures under control. In FY 2001, EPA established a preliminary baseline of 1204 final and deleted NPL sites to monitor for migration of contaminated groundwater under control. 745 (61%) of these 1204 sites have contaminated groundwater migration under control.

Tribal Cleanup Assistance

In 2003 Complete 45 Leaking Underground Storage Tank (LUST) cleanups in Indian Country for a cumulative total of 617 cleanups since 1987.

In 2003 EPA will continue to emphasize increasing the number of Indian tribes participating in the Superfund program, as expressed through the number of tribes supported by Superfund cooperative agreements with tribes and intertribal consortia.

In 2002 Complete 40 Leaking Underground Storage Tank (LUST) Cleanups in Indian Country for a cumulative total of 572 cleanups since 1987.

In 2002 EPA will continue to emphasize increasing the number of Indian tribes participating in the Superfund program, as expressed through the number of tribes supported by Superfund cooperative agreements with tribes and intertribal consortia.

In 2001 30 LUST cleanups were completed in Indian Country in FY 2001.

In 2001 FY 2001 accomplishments in Indian Country include 11 site assessments, support to 78 tribes through 27 cooperative agreements, provision of \$3.8M for capacity building, and tribal leadership or support in responding to 26% of Superfund sites impacting Indian Country.

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	
LUST cleanups in Indian Country.	30	40	45	cleanups
Site assessments (PA/SI) conducted in Indian country.	11	no target	no target	assessments
The number of tribes supported by cooperative agreements with tribes/intertribal consortia.	78	no target	no target	agreements
Funding provided for building tribal capacity.	\$3.8M	no target	no target	funding
Percentage of Superfund sites impacting Indian country where a tribe is involved as either the lead or support agency.	26	no target	no target	involvement

Baseline: EPA completed a total of 532 LUST cleanups in Indian Country from 1987 through 2001. The baseline for Superfund activities is currently under development.

Homeland Security

In 2003 EPA will complete the remaining 27 critical facility vulnerability assessments, prioritize the risks associated with each facility, and begin mitigation.

In 2003 EPA will improve its overall homeland security readiness capability by 20% by performing enhanced training and exercises and

providing state-of-the-art equipment. Percentage improvement will be determined by an annual readiness survey and inspections.

In 2002 Establish a baseline of overall homeland security readiness capabilities through an annual survey mechanism.

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	
Percentage improvement in homeland security readiness.			20	percent
Percentage of LEPCs that have incorporated homeland security prevention and planning into community contingency plans.		no target	no target	percent
Percentage of states that have incorporated homeland security planning into state response systems.		no target	no target	percent

Baseline: Based on FY 2002 performance, baseline is zero for number of critical Agency facilities that have had vulnerability assessments.

Homeland Security

In 2003 EPA will complete the remaining 27 critical facility vulnerability assessments, prioritize the risks associated with each facility, and begin mitigation.

In 2003 EPA will improve its overall homeland security readiness capability by 20% by performing enhanced training and exercises and providing state-of-the-art equipment. Percentage improvement will be determined by an annual readiness survey and inspections.

In 2002 Establish a baseline of overall homeland security readiness capabilities through an annual survey mechanism.

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	
Number of vulnerability assessments performed.			27	Assessments

Baseline: Based on FY 2002 performance, baseline is zero for number of critical Agency facilities that have had vulnerability assessments.

Research

Scientifically Defensible Decisions for Site Clean

- In 2003 To ensure cost-effective and technically sound site clean-up, deliver state-of-the-art guidance and methods to EPA and stakeholders for risk management of fuel oxygenates; organic and inorganic contamination of sediments, ground water and/or soils; and oil spills.
- In 2002 Provide at least 6 innovative approaches that reduce human health and ecosystem exposures from DNAPLs and MTBE in soils and groundwater, and from oil and persistent organics in aquatic systems.
- In 2002 Provide new soil sampling methods, soil contaminant screening levels for chemicals that pose ecological risks, and generate specific statistical distributions for factors used in human health exposure assessments.
- In 2001 EPA provided technical information to support scientifically defensible and cost-effective decisions for clean-up of complex sites, hard-to-treat wastes, mining, oil spills near shorelines, and Brownfields to reduce risk to human health and the environment.

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	
Interim report on monitored natural attenuation in sediments	1			document
Progress report on Field Demonstration of Chemically-Enhanced Subsurface Dense, Non-Aqueous Phase Liquid Extraction Technologies	1			report
Publish a technical Resource Document on the bioremediation of oil spills on marine shorelines. Provide oil spill response teams with a tool to assess appropriate applications of bioremediation.	1			document
Deliver the Annual SITE Program Report to Congress.	0			report
Annual SITE Program report to Congress detailing 4-6 innovative approaches, their cost savings and future direction; reports summarizing pilot scale evaluation of in-situ remedies for solvents.		1	1	report
Report on children's soil ingestion rates derived from environmental and biological measurements of arsenic.		1		report
Report on ecotoxicity soil screening levels for mammals, birds, soil plants, and soil biota for use in ecological risk assessments at Superfund sites.		1		tech report
Report: Permeable reactive barriers for ground water remediation; Incorporating the results of long-term performance studies in remedy selection for contaminated sites.			1	report

Baseline: Deliver state-of-the-art guidance and methods to EPA and other stakeholders for risk management of fuel oxygenates; organic and inorganic contamination of sediments, ground water and/or soils; and oil spills to ensure cost-effective and technically sound site clean-up. Baseline: There are a number of contaminants and/or media at Superfund, Leaking Underground Storage Tank (LUST) sites that are difficult to clean up. Methyl tert-Butyl Ether (MTBE), a fuel oxygenate found increasingly in US ground water/drinking water, requires clean up to low (ppb) levels but clean-up is expensive because of its chemical, physical and biological properties. Polynuclear aromatic hydrocarbons (PAH) are found at wood preserver sites and gas manufacturing plants, contain carcinogenic components and are difficult to cost-effectively clean up due to their high molecular weight. Arsenic (As) in ground water requires clean up to low levels due to its impacts on humans and ecological systems. As treatment systems which perform for long periods of time are needed. We also need to understand the reasons why ground water As concentrations may naturally reduce over time. Bulk shipment/storage of non-petroleum oils (e.g. vegetable oils) can result in spills/leaks that have significant impacts on fresh water and marine environments. Inexpensive techniques are needed to clean up these spills without doing further harm to the environment. Research involving pilot and full scale treatment testing/demonstrations is particularly important when addressing these research needs because such research will lead to near-term options for effective, reasonable-cost clean-ups.

Verification and Validation of Performance Measures

Performance Measure (PM): LUST cleanups completed.

Performance Database: EPA does not maintain a national database for this information.

Data Source: Designated state agencies submit semi-annual progress reports to the EPA regional offices.

QA/QC Procedures: EPA regional offices verify the data and then forward them to the EPA Headquarters, where staff examine the data and resolve any discrepancies with the regional offices. The data are displayed in a document on a region-by-region basis, which allows regional staff to again verify their data.

Data Quality Reviews: None.

Data Limitations: This process relies on accuracy and completeness of state records.

New/Improved Data or Systems: None.

Performance Measure (PM): Superfund construction completions.

Performance Database: CERCLIS is the official database used by the Agency to track, store, and report Superfund site information.

Data Source: Data is entered on a rolling basis by EPA.

QA/QC Procedures: To ensure data accuracy and control, the following administrative controls are in place: 1) Superfund/Oil Implementation Manual (SPIM), the program management manual which details what data must be reported; 2) Report Specifications, which are published for each report detailing how reported data are calculated; 3) Coding Guide, which contains technical instructions to such data users as regional Information Management Coordinators (IMCs), program personnel, report owners and data input personnel; 4) Quality Assurance (QA) Unit Testing, which is an extensive QA check against report specifications; 5) QA Third Party Testing, an extensive test made by an independent QA tester to ensure that the report produces data in conformance with the report specifications; 6) Regional CERCLIS Data Entry Internal Control Plan, which includes: a) regional policies and procedures for entering data into CERCLIS, b) a review process to ensure that all Superfund accomplishments are supported by source documentation, c) delegation of authorities for approval of data input into CERCLIS, and, d) procedures to ensure that reported accomplishments meet accomplishment definitions; and 7) a historical lockout feature that has been added to CERCLIS so that changes in past fiscal year data can be changed only by approved and designated personnel and are logged to a change log report.

Data Quality Review: Two audits, one by the Office of the Inspector General (OIG) and the other by the General Accounting Office (GAO), were done to assess the validity of the data in CERCLIS. The OIG audit report “Superfund Construction Completion Reporting” (No. E1SGF7-05-0102-8100030) was prepared to verify the accuracy of the information that the Agency was providing to Congress and the public. The OIG report concluded that the Agency “has good management controls to ensure accuracy of the information that is reported,” and “Congress and the public can rely upon the information EPA provides regarding construction completions.” GAO’s report, “Superfund Information on the Status of Sites (GAO/RECD-98-241),” estimates that the cleanup status of National Priority List sites reported by CERCLIS is accurate for 95% of the sites.

Data Limitations: No data limitations have been identified.

New/Improved Data or Systems: In 2003, the Agency will continue its efforts begun in 1999 to improve the Superfund Program’s technical information by incorporating more site remedy selection, risk, removal response, and community involvement information in CERCLIS. Efforts to share information among the federal, state, and tribal programs to further enhance the Agency’s efforts to efficiently identify, evaluate and remediate Superfund hazardous waste sites will continue. In 2003, the Agency will also establish data quality objectives for program planning purposes and to ascertain the organization’s information needs for the next five years. Adjustments will be made to EPA’s current architecture and business processes to better meet the need.

Performance Measure (PM): High priority RCRA facilities with human exposures to toxins controlled; High priority RCRA facilities with toxic releases to groundwater controlled.

Performance Database: The Resource Conservation Recovery Act Information System (RCRAInfo) is the national database which supports EPA’s RCRA program. RCRAInfo contains information on entities (generically referred to as “handlers”) engaged in hazardous waste (HW) generation and management activities regulated under the portion of RCRA that provides for regulation of hazardous waste. RCRAInfo has several different modules, including a Corrective Action Module that tracks the status of facilities that require, or may require, corrective actions. A “yes” or “no” entry is made in the database with respect to meeting corrective action indicators. Supporting documentation and reference materials are maintained in regional and state files.

Human exposures controlled and toxic releases to groundwater controlled are used to summarize and report on the facility-wide environmental conditions at the RCRA Corrective Action Program’s highest priority facilities. The environmental indicators are used to track the RCRA program’s progress on getting highest priority contaminated sites under control. Known and suspected sitewide conditions are evaluated using a series of simple questions and flow-chart logic to arrive at a reasonable, defensible determination. These questions were issued as Interim Final Guidance on February 5, 1999. Lead regulators for the site (authorized state or EPA) make the environmental indicator determination; however, facilities or their consultants may assist EPA in the evaluation by providing information on the current environmental conditions.

Data Source: EPA regions and authorized states enter data on a rolling basis.

QA/QC Procedures: States and Regions generate the data and manage data quality related to timeliness and accuracy (i.e., the environmental conditions and determinations are correctly reflected by the data). Within RCRAInfo the application software enforces structural controls that ensure that high-priority national components of the data are properly entered. RCRAInfo documentation, which is available to all users on-line, provides guidance to facilitate the generation and interpretation of data. Training on use of RCRAInfo is provided on a regular basis, usually annually, depending on the nature of systems changes and user needs.

Data Quality Reviews: GAO's 1995 Report on PA's Hazardous Waste Information System reviewed whether national RCRA information systems support meeting the primary objective of helping EPA and states manage the hazardous waste program. Recommendations coincide with ongoing internal efforts (WIN/Informed) to improve the definitions of data collected, ensure that data collected provide critical information and minimize the burden on states

Data Limitations: No data limitations have been identified. As discussed above, environmental indicator determinations are made by the authorized states and EPA regions based on a series of standard questions and entered directly into RCRAInfo. EPA has provided guidance and training to states and regions to help ensure consistency in those determinations. High priority facilities are monitored on a facility-by-facility basis and the QA/QC procedures identified above are in place to help ensure data validity.

New/Improved Data or Systems: EPA has successfully implemented new tools for managing environmental information to support federal and state programs, replacing the old data systems (the Resource Conservation and Recovery Information System and the Biennial Reporting System) with RCRAInfo. RCRAInfo allows for tracking of information on the regulated universe of RCRA hazardous waste handlers, such as facility status, regulated activities, and compliance history. The system also captures detailed data on the generation of hazardous waste from large quantity generators and on waste management practices by treatment, storage, and disposal facilities. RCRAInfo is web accessible, providing a convenient user interface for federal, state and local managers, encouraging development of in-house expertise for controlled cost, and using commercial off-the-shelf software to develop reports from database tables.

Performance Measure (PM): **Brownfields Cumulative site assessments; Brownfields Cumulative jobs generated; Brownfields Cumulative leveraging of cleanup and redevelopment funds.**

Performance Database: The Brownfields Management System (BMS) is used to evaluate environmental, and economics-related results, such as properties assessed, acres cleaned up, and jobs generated. BMS uses data gathered from Brownfield pilots' quarterly reports and from the EPA regions. The Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) records regional accomplishments on brownfields assessments in the Brownfields module. This database module tracks Targeted Brownfields Assessments (TBAs) on a property-specific basis. This module contains information such as: the property's operational status (e.g., "Active" or "Inactive"), prior use (e.g., "Disposal," "Production Facility," or "Midnight Dump"), the actual start and completion dates for the TBA, the phase of the TBA, and the outcome

or result of the TBA.

Data Source: EPA headquarters and regional staff enter data on a rolling basis. Data are derived from grant recipient reports on Pilot and Targeted Brownfields Assessment projects.

QA/QC Procedures: Verification relies on reviews by regional staff responsible for pilot cooperative agreements or brownfields cooperative agreements and contracts.

Data Quality Reviews: The program and external organizations have conducted several data quality reviews. GAO conducted the most recent, "Brownfields: Information on the Programs of EPA and Selected States" (GAO-01-52, December 15, 2000). GAO recommended that EPA continue to review data reported by recipients before the Agency's new guidelines for results were put in place and make any corrections needed to ensure that the data are consistent with the current guidelines. GAO also recommended that EPA regions monitor and work to improve recipients' reporting of data on key results measures.

Data Limitations: The reporting of results of the Brownfields pilots is subject to the Paperwork Reduction Act and attendant OMB regulations governing information collection requests (ICR's), as well as the Agency's assistance regulations. Consequently, the Agency is limited to obtaining information from assessment pilot recipients on specific accomplishments attained with grant funds, such as properties assessed (40 CFR 35.6650(b)(1)). In addition, EPA may not require private sector entities, which do not receive EPA financial assistance, to provide information relating to such accomplishment measures as redevelopment dollars invested or numbers of jobs created. These constraints may lead to an underreporting of accomplishments.

New/Improved Data or Systems: In September 1999 EPA Headquarters issued guidance to the regions to standardize quarterly reporting of accomplishment measures for newly awarded and amended assessment grants. This guidance was developed to ensure that the standardized information collected fell within the scope of regulations and the applicable OMB control number for quarterly reporting by assessment pilot recipients. EPA also is working with recipients to encourage the use of this standardized reporting through workshops and training. To improve recipients' reporting of data on key results measures, EPA has implemented GAO's recommendation that the Agency make it clear to recipients that follow-on awards depend on reported results.

Performance Measure (PM): Refer to DOJ, settle, or writeoff 100% of Statute of Limitations (SOLs) cases for Superfund sites with total unaddressed past costs equal to or greater than \$200,000 and report value of costs recovered.

Performance Database: Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS)

Data Source: Automated EPA system; headquarters and EPA regional offices enter data into CERCLIS

QA/QC Procedures: To ensure data accuracy and control, the following administrative controls are

in place: 1) Superfund/Oil Implementation Manual (SPIM), the program management manual that details what data must be reported; 2) Report Specifications, which are published for each report detailing how reported data are calculated; 3) Coding Guide, which contains technical instructions to such data users as regional Information Management Coordinators (IMCs), program personnel, report owners, and data input personnel; 4) Quality Assurance (QA) Unit Testing, an extensive QA check against report specifications; 5) QA Third Party Testing, an extensive test made by an independent QA tester to ensure that the report produces data in conformance with the report specifications; 6) Regional CERCLIS Data Entry Internal Control Plan, which includes: a) regional policies and procedures for entering data into CERCLIS, b) a review process to ensure that all Superfund accomplishments are supported by source documentation, c) delegation of authorities for approval of data input into CERCLIS, and, d) procedures to ensure that reported accomplishments meet accomplishment definitions; and 7) a historical lockout feature that has been added to CERCLIS so that changes in past fiscal year data can be changed only by approved and designated personnel and are logged to a change-log report.

Data Quality Review: The IG annually reviews the end-of-year CERCLA data, in an informal process, to verify the data supporting the performance measure. Typically, there are no published results.

Data Limitations: None

New/Improved Data or Systems: None

FY 2003 Congressional Performance Measure (PM): PRPs conduct 70 percent of the work at new construction starts.

Performance Database: Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS)

Data Source: Automated EPA system; headquarters and EPA regional Offices enter data into CERCLIS

QA/QC Procedures: To ensure data accuracy and control, the following administrative controls are in place: 1) Superfund/Oil Implementation Manual (SPIM), the program management manual that details what data must be reported; 2) Report Specifications, which are published for each report detailing how reported data are calculated; 3) Coding Guide, which contains technical instructions to such data users as regional Information Management Coordinators (IMCs), program personnel, report owners, and data input personnel; 4) Quality Assurance (QA) Unit Testing, an extensive QA check against report specifications; 5) QA Third Party Testing, an extensive test made by an independent QA tester to ensure that the report produces data in conformance with the report specifications; 6) Regional CERCLIS Data Entry Internal Control Plan, which includes: a) regional policies and procedures for entering data into CERCLIS, b) a review process to ensure that all Superfund accomplishments are supported by source documentation, c) delegation of authorities for approval of data input into CERCLIS, and, d) procedures to ensure that reported accomplishments meet accomplishment definitions; and 7) a historical lockout feature that has been added to

CERCLIS so that changes in past fiscal year data can be changed only by approved and designated personnel and are logged to a change-log report.

Data Quality Review: The IG annually reviews the end-of-year CERCLA data, in an informal process, to verify the data supporting the performance measure. Typically, there are no published results.

Data Limitations: None

New/Improved Data or Systems: None

Research

Verification and Validation of Performance Measures

FY 2003 Congressional Performance Measure (PM): Provide the SITE Program Report to Congress

Performance Database: Program output, no internal tracking system

Data Source: N/A

QA/QC Procedures: N/A

Data Quality Reviews: Report

Data Limitations: N/A

New/Improved Data or Systems: N/A

Coordination with Other Agencies

LUST

EPA, with very few exceptions, does not perform the cleanup of leaking underground storage tanks (LUST). States and territories use the LUST Trust Fund to administer their corrective action programs, oversee cleanups by responsible parties, undertake necessary enforcement actions, and pay for cleanups in cases where a responsible party cannot be found or is unwilling or unable to pay for a cleanup. Most states have cleanup funds that cover the majority of owners and operators' cleanup costs. These state funds are separate from the LUST Trust Fund.

State LUST programs are key to achieving the objectives and long-term strategic goals. Except in Indian Country, EPA relies on state agencies to implement the LUST program, including overseeing cleanups by responsible parties and responding to emergency LUST releases. LUST cooperative agreements awarded by EPA are directly given to the states to assist them in

implementing their oversight and programmatic role.

Superfund

The Superfund program coordinates with many other Federal and state agencies in accomplishing its mission. Executive Order 12580 delegates certain authorities for implementing Superfund to other Federal agencies. Many of these agencies perform, in close consultation and coordination with EPA, essential services in areas where the Agency does not possess the specialized expertise. Currently, the Agency has active interagency agreements with the Department of Interior (DOI), the National Oceanic and Atmospheric Administration (NOAA), the Federal Emergency Management Agency (FEMA), the Occupational Safety and Health Administration (OSHA), and the United States Coast Guard (USCG).

These agencies provide numerous Superfund related services such as supporting the national response system by providing emergency preparedness expertise and administrative support to the national response team and the regional response teams; conducting compliance assistance visits to review site safety and health plans and developing guidelines for assessing safety and health at hazardous waste sites; conducting outreach to states, Indian Tribes and Federal natural resource trustee officials regarding natural resource damage assessments; providing scientific support for response operations in EPA's regional offices; assisting in the coordination among Federal and state natural resource trustee agencies; supporting the Superfund program in the management and coordination of training programs for local officials through the Emergency Management Institute and the National Fire Academy; and responding to actual or potential releases of hazardous substances involving the coastal zones, including the Great Lakes and designated inland river ports; and litigating and settling cleanup agreements and cost recovery cases. In addition, the Agency coordinates with the United States Army Corp of Engineers (USACE), states, and Tribes in the identification and cleanup of approximately 9,100 FUDs nationwide. Expectations are that the Agency will play an even greater role at these sites in the future.

USACE and the Bureau of Reclamation contribute to the cleanup of Superfund sites by providing technical support for the design and construction of many remediation projects through site-specific interagency agreements. These Federal partners have the technical design and construction expertise and contracting capability needed to assist EPA regions in implementing most of Superfund's high-cost Fund-financed remedial action projects. These two agencies also provide technical on-site support to regions in the enforcement oversight of numerous construction projects performed by PRPs.

The Superfund response and Federal Facilities enforcement programs work closely with other Federal agencies (e.g., DOD, DOE, DOI, etc.) to clean up their facilities under the Superfund program. EPA also works with states and Indian Tribes as key partners in the cleanup decision-making process at Superfund Federal sites.

The Agency also works in partnership with state and Tribal governments to strengthen their hazardous waste programs and improve the efficiency and effectiveness of the nation's overall hazardous waste response capability. EPA assists the states in developing their CERCLA

implementation programs through infrastructure support, financial and technical assistance, and training. Partnerships with states increase the number of site cleanups, improve the timeliness of responses, and make land available for economic redevelopment sooner, while allowing for more direct local involvement in the cleanup process.

The focal point for our Federal preparedness efforts is EPA's role in the National Response System, which coordinates chemical emergency preparedness and response at the Federal, state and local levels. Within this structure, EPA chairs the multi-agency National Response Team, and co-chairs Regional Response Teams that oversee national, regional, and area spill emergency planning. In addition, the Agency plays a leadership role in crisis management and Homeland Security requiring participation in a number of inter-agency workgroups. The Environmental Response Team Center West (ERTC-West) will provide emergency response resources to support FBI-led response teams in a terrorism event; response action includes threat assessment, site evaluation and removal actions, agent identification, hazard detection and reduction, environmental monitoring, decontamination and long term site restoration. ERTC-West will maintain an around-the-clock emergency response activation system to assist the EPA Western Regions and program offices in responding to environmental emergencies and uncontrolled oil and hazardous wastes sites. The ERTC-West will also conduct training for Federal, state and local government officials and private industry representatives in the latest oil and hazardous substance response technology.

Under the National Contingency Plan and the Federal Radiological Emergency Response Plan, EPA will assist the regions, states and other Federal agencies in responding to radiological emergencies. EPA will provide technical assistance and guidance on all radiation Superfund Emergency Response matters and will also offer field monitoring expertise, mobile radiochemical analysis, and dose and risk assessment support, and develop Protective Action Guidance for use by state/local authorities in protecting their populations. EPA will perform radiological lab analyses that provide data on radiation levels and risks and will make enhancements to the Environmental Radiation Ambient Monitoring System which collects data across all fifty states and the American Territories for drinking and groundwater samples, and air and milk analysis.

EPA partners with other Federal agencies, state and local governments, and private industry to fulfill Superfund program priorities when a site is radioactively contaminated. Under CERCLA, radioactively contaminated sites are addressed in a manner consistent with how chemically contaminated sites are addressed, accounting for the technical differences. The Radiation program provides radiological scientific and technical expertise and leadership in evaluating projects and providing field and laboratory support.

Brownfields

The Brownfields National Partnership represents a significant investment in brownfields communities from more than 20 Federal agencies. Federal resources include additional brownfields pilots from EPA; redevelopment funds from the Department of Housing and Urban Development and the Economic Development Agency; planning funds from the Economic Development Agency and job training efforts from the Department of Labor and the National Institute of Environmental Health Sciences.

The centerpiece of the Brownfields National Partnership is the funding of 28 brownfields showcase communities which began in FY 1998. The Showcase communities were selected to receive brownfields assistance from various agencies including EPA, Department of the Interior, Department of Justice, many of those previously mentioned, as well as General Services Administration and the National Oceanographic and Atmospheric Administration. EPA and these other Federal agencies will continue to provide active support for brownfields activities across the country in FY 2003. EPA's commitment to the Showcase project was to award additional assessment and demonstration pilots and fund an Intergovernmental Personnel Act staff in 27 of the 28 communities. To augment the success of the Brownfields National Partnership and its efforts to clean up and redevelop brownfields properties, the Agency and its Federal partners will revitalize the partnership in FY 2003 by entering into new Memoranda-of-Understanding.

The Brownfields program also relies on partnership building with local government, state, and non-government groups to leverage Federal funding with private sector funding. As part of the brownfields initiative, EPA will continue to provide outreach, curriculum development, job training, and technical assistance to community residents through cooperative agreements to community-based organizations, community colleges, universities, and private sector non-profit groups. To date, Brownfields pilots have leveraged over 12,000 cleanup, construction and redevelopment jobs. The Agency also works with cities, states, Federally recognized Indian Tribes, community representatives, and other stakeholders to implement the many commitments. Successful brownfields redevelopment is proof that economic development and environmental protection go hand in hand.

The Brownfields program has demonstrated that cleaning up abandoned or under-used contaminated land can have significant payoffs. Building on the pilot program, EPA will continue to partner with other Federal, state, local, and private sector efforts to restore contaminated property to economic reuse. With the requested increase in FY 2003, EPA will provide funding to 74 new assessment pilot cooperative agreements and support 52 existing brownfields assessment pilot cooperative agreements, provide technical assistance to 28 existing brownfields showcase communities, provide support to 30 new communities to capitalize revolving loan funds, provide brownfields communities with targeted brownfields assessments (TBAs), and award 10 additional job training pilots. The Agency will also provide information and tools and develop model practices and policies to be used by local governments, developers, and transportation officials in their pursuit to redevelop brownfields properties.

RCRA

The Agency maintains a close relationship with the state agencies that are authorized to implement the Resource Conservation and Recovery Act (RCRA) corrective action program. EPA expects states to achieve the same level of Federal standards as the Agency, including annual performance goals of human exposures and groundwater releases controlled. As part of the state grant process, Regional offices negotiate with the states their progress set in meeting the corrective action program objectives of the GPRRA goals.

Encouraging states to become authorized for the RCRA Corrective Action program remains a priority. Currently, thirty-nine states and territories have the authority to implement the program. EPA expects several additional states to gain authorization in the next one to two years. EPA also encourages states to use alternate (non-RCRA) authorities to accomplish the goals of the corrective action program. These include state Superfund and voluntary programs.

The RCRA Corrective Action program also coordinates closely with other Federal agencies, primarily the Department of Defense and Energy, that have many sites in the corrective action universe. Encouraging Federal Facilities to meet environmental indicators remains a top priority.

Research

EPA expends substantial effort coordinating with other agencies to conduct risk management and assessment research. These activities include work with the Department of Defense (DOD) in their Strategic Environmental Research and Development Program and the Environmental Security Technology Certification Program, the Department of Energy (DOE), and the Office Health and Environmental Research. EPA also conducts collaborative field demonstrations (e.g., through the SITE program) and laboratory research with DOD, DOE, and the Department of Interior (particularly the U.S. Geological Survey - USGS) to improve characterization and risk management options for dealing with subsurface contamination. Collaborations with external organizations provide the Agency with more opportunity to understand and address a variety of complex waste/site characterization and remediation problems and, consequently, improve the Agency's ability to meet its objective of quicker and more cost-effective site cleanups.

Other research efforts involving coordination include: the unique controlled-spill field research facility that was designed in cooperation with the U.S. Bureau of Reclamation. Also, geophysical research experiments and development of software for subsurface characterization and detection of contaminants are being conducted with the USGS and DOE's Lawrence Berkeley National Laboratory. These experiments include the use of a controlled spill unit in which solvents can be spilled and their subsequent movement is monitored using experimental ground penetrating radar, borehole dielectric techniques, complex resistivity, seismic techniques, and electromagnetic techniques.

The USGS also has a number of programs, such as the Toxic Substances Hydrology Program, that support studies related to contamination of surface water and groundwater by hazardous materials. Groundwater modeling of MTBE is being conducted in collaboration with New York State activities to clean up sites. Also, Remediation Technology Development Forums (RTDFs) on such topics as bioremediation, metal treatment, and contaminated sediments have been formed to conduct collaborative research programs addressing priority technical issues.

The Agency is also working with the National Institute of Environmental Health Sciences (NIEHS) to advance fundamental Superfund research. NIEHS manages a large basic research program focusing on Superfund issues. The program is mandated in CERCLA, which establishes a "basic university research and education program" in NIEHS, and further reinforced in the Superfund Amendments and Reauthorization Act (SARA). Also in conjunction with a CERCLA

mandate, the Agency for Toxic Substances and Disease Registry (ATSDR) was established to provide critical health-based information to assist EPA in making effective cleanup decisions.

The Rapid Commercialization Initiative (RCI) is a Federal/state/private cooperative effort to expedite the application of new environmental technologies. Participating Federal agencies include the Department of Commerce, DOD, DOE, and EPA. Participating states and state organizations include the California Environmental Protection Agency, Southern States Energy Board, and the Western Governors Association.

Statutory Authorities

- Solid Waste Disposal Act as amended by Hazardous and Solid Waste Amendments of 1984 to the Resource Conservation and Recovery Act of 1976
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) as amended by the Superfund Amendments and Reauthorization Act of 1986, 42 U.S.C. 9601-9657
- Defense Base Closure and Realignment Act of 1990, and the Defense Authorization Amendments and Base Realignment and Closure Act (BRAC) of 1990, Section 2905(a)(1)(E) (10 U.S.C. 2687 Note).
- Pollution Prevention Act (PPA) (42 U.S.C. 13101-13109)
- Oil Pollution Act 33 U.S.C.A.
- Community Environmental Response Facilitation Act (CERFA)
- National Environmental Policy Act (NEPA)
- Atomic Energy Act of 1954, as amended, 42 U.S.C. 2011 et seq. (1970), and Reorganization Plan #3 of 1970
- Uranium Mill Tailings Radiation Land Withdrawal Act of 1978
- C Public Health Service Act, as amended, 42 U.S.C. 201 et seq
- C Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended, 42 U.S.C. 5121 et seq
- C Safe Drinking Water Act, 42 U.S.C. 300F et seq (1974)
- C Executive Order 12241 of September 1980, National Contingency Plan, 3 CFR, 1980
- C Executive Order 12656 of November 1988, Assignment of Emergency Preparedness Responsibilities, 3 CFR, 1988

Research

- C Comprehensive Environmental Response, Compensation, and Liabilities Act (CERCLA)
- C Response Conservation and Recovery Act (RCRA)
- C Oil Pollution Act (OPA)
- C Brownfields Revitalization and Environmental Restoration Act

Environmental Protection Agency

FY 2003 Annual Performance Plan and Congressional Justification

Better Waste Management, Restoration of Contaminated Waste Sites, and Emergency Response

Objective: Regulate Facilities to Prevent Releases

By 2005, EPA and its federal, state, tribal, and local partners will ensure that more than 277,000 facilities are managed according to the practices that prevent releases to the environment.

Resource Summary (Dollars in Thousands)

	FY 2001 Actuals	FY 2002 Enacted	FY 2003 Request	FY 2003 Req. v. FY 2002 Ena.
Regulate Facilities to Prevent Releases	\$160,707.2	\$165,842.9	\$167,261.2	\$1,418.3
Environmental Program & Management	\$97,901.0	\$102,477.9	\$103,863.6	\$1,385.7
Hazardous Substance Superfund	\$91.1	\$217.1	\$226.3	\$9.2
Oil Spill Response	\$13,678.3	\$13,596.0	\$14,166.0	\$570.0
Science & Technology	\$8,730.9	\$10,095.3	\$9,548.7	(\$546.6)
State and Tribal Assistance Grants	\$40,305.9	\$39,456.6	\$39,456.6	\$0.0
Total Workyears	760.3	807.8	800.4	-7.4

Key Program (Dollars in Thousands)

	FY 2001 Enacted	FY 2002 Enacted	FY 2003 Request	FY 2003 Req. v. FY 2002 Ena.
Administrative Services	\$1,003.0	\$0.0	\$0.0	\$0.0
Civil Enforcement	\$1,264.7	\$1,512.0	\$1,538.6	\$26.6
Community Right to Know (Title III)	\$4,861.1	\$4,968.4	\$4,953.1	(\$15.3)
Compliance Assistance and Centers	\$267.9	\$264.8	\$271.4	\$6.6
Congressionally Mandated Projects	\$1,696.3	\$2,100.0	\$0.0	(\$2,100.0)
EMPACT	\$160.5	\$0.0	\$0.0	\$0.0
Facilities Infrastructure and Operations	\$8,350.2	\$9,712.1	\$10,182.4	\$470.3
Hazardous Waste Research	\$6,990.0	\$9,088.3	\$9,548.7	\$460.4
Homeland Security	\$0.0	\$7.0	\$0.0	(\$7.0)
Legal Services	\$2,249.0	\$2,451.1	\$2,633.3	\$182.2
Management Services and Stewardship	\$1,350.8	\$2,135.7	\$2,316.8	\$181.1
Oil Spills Preparedness, Prevention and Response	\$11,948.9	\$11,795.4	\$12,332.2	\$536.8
Project XL	\$126.4	\$0.0	\$0.0	\$0.0
RCRA Improved Waste Management	\$62,477.7	\$61,174.6	\$61,860.0	\$685.4

	FY 2001 Enacted	FY 2002 Enacted	FY 2003 Request	FY 2003 Req. v. FY 2002 Ena.
RCRA State Grants	\$27,433.2	\$27,538.2	\$27,538.2	\$0.0
Radiation	\$7,355.6	\$7,000.5	\$7,519.3	\$518.8
Regional Management	\$150.0	\$177.8	\$176.4	(\$1.4)
Risk Management Plans	\$8,005.5	\$7,202.9	\$7,446.0	\$243.1
UST State Grants	\$11,918.4	\$11,918.4	\$11,918.4	\$0.0
Underground Storage Tanks (UST)	\$7,045.8	\$6,795.7	\$7,026.4	\$230.7

FY 2003 Request

Underground Storage Tank Program

The underground storage tanks (UST) program works in partnership with states to prevent, detect and address releases from USTs containing petroleum and hazardous substances. In FY 2003, the Agency's goal for the UST program is to protect our nation's groundwater by promoting and enforcing compliance with these regulatory requirements. While the vast majority of the approximately 700,000 active tanks have the proper equipment, significant work remains to ensure UST owners and operators properly maintain and operate these USTs. The Agency's primary role is working with states to promote compliance with spill, overfill, and corrosion protection requirements, and ensuring that leak detection requirements are emphasized as a national priority. The Agency's role extends to all federally regulated UST systems, including those on private and public property, tribal lands, and federal facilities.

Continuing to improve owners' and operators' compliance with the UST regulations is one of the Agency's national initiatives. The Agency will build upon its work with states to achieve improved compliance and to develop national and Regional compliance targets through FY 2005 with the goal of achieving improved compliance in each state every year. The Agency will work with states to obtain commitments to increase their inspection and enforcement presence if state-specific targets are not met. The Agency and the states will use innovative outreach and education tools such as multi-site agreements with Federal, state, municipal, Tribal, or private UST owners to bring more tanks into compliance. An example of a multi-site agreement is when a single tank owner with multiple sites agrees to bring all sites into compliance and keep them in compliance. The Agency will also provide technical assistance tools, improved guidance and training to owners, operators and inspectors to foster improved operational compliance with the requirements.

In FY 2003, the Agency will update available information about the performance of new or upgraded UST systems to determine how well existing systems are preventing and detecting releases, analyze leak autopsy data to quantify the frequency of releases by source and cause, foster long-term efforts to further analyze the performance of UST systems, and identify any needed options for improving performance. While the Federal and state UST requirements have led to substantially improved UST systems and fewer new releases, some releases from newer tanks continue to occur, as reported by the states. Based on a 1998 EPA report to Congress, "National Water Quality Inventory," releases from USTs are the leading cause of groundwater contamination in the country. The presence of methyl-tertiary-butyl-ether (MTBE) in gasoline increases the

importance of preventing and rapidly detecting releases because MTBE cleanup can cost 100 percent more than cleanup involving other gasoline contaminants.

In FY 2003, the Agency will focus its efforts on further evaluating those components or procedures which pose the greatest continued threat to human health and the environment through UST releases or delayed detection of petroleum products, including MTBE. The Agency will also begin work to resolve the remaining problems, such as contamination through MTBE releases, through outreach and education, training and guidance, or pursuing regulatory improvements. This work will involve substantial coordination with our state and industry partners, and will likely involve initiating and coordinating various research efforts.

EPA has the primary responsibility for implementation of the UST program in Indian Country. This responsibility requires EPA Regional offices to educate owners and operators about the UST requirements, conduct inspection and enforcement activities, and maintain a database of information on USTs located in Indian Country.

Chemical Emergency Preparedness and Prevention

The Agency's chemical emergency preparedness and prevention program seeks to decrease the risks associated with the manufacture, transportation, storage and use of hazardous chemicals. The program is primarily responsible for implementing the Risk Management Program and General Duty Clause authorities of the Clean Air Act, and the emergency preparedness authorities of the Emergency Planning and Community Right-to-Know Act (EPCRA). The program also implements right-to-know initiatives stemming from EPCRA to inform the public about chemical hazards and supports actions at the local level to reduce risk. The cornerstone of the program is a belief that the operators of facilities who have hazardous chemicals are primarily responsible for the safe handling of those chemicals. In addition, since the risks posed by these facilities are local issues, state and local governments, as well as the community, play a critical role in risk reduction.

All Americans benefit from an effective chemical safety program because hazardous chemical substances are virtually everywhere, and chemical accidents are an ever-present danger. EPA estimates that over 500,000 facilities nationwide have significant quantities of hazardous chemicals subject to EPCRA requirements. The facilities subject to the RMP reported over 1,900 accidents over the past five-year period involving deaths, injuries, significant property/environmental damage and/or evacuations/shelter-in-place.

Assisting Facilities with Their Responsibilities

Section 112(r) of the Clean Air Act requires approximately 15,000 facilities to develop comprehensive RMPs and submit them to EPA, state agencies, and local emergency planning committees (LEPCs). Through this program, Federal, state, and local agencies and the general public have access to large amounts of information on the presence of chemicals in every community and the potential hazards those chemicals present.

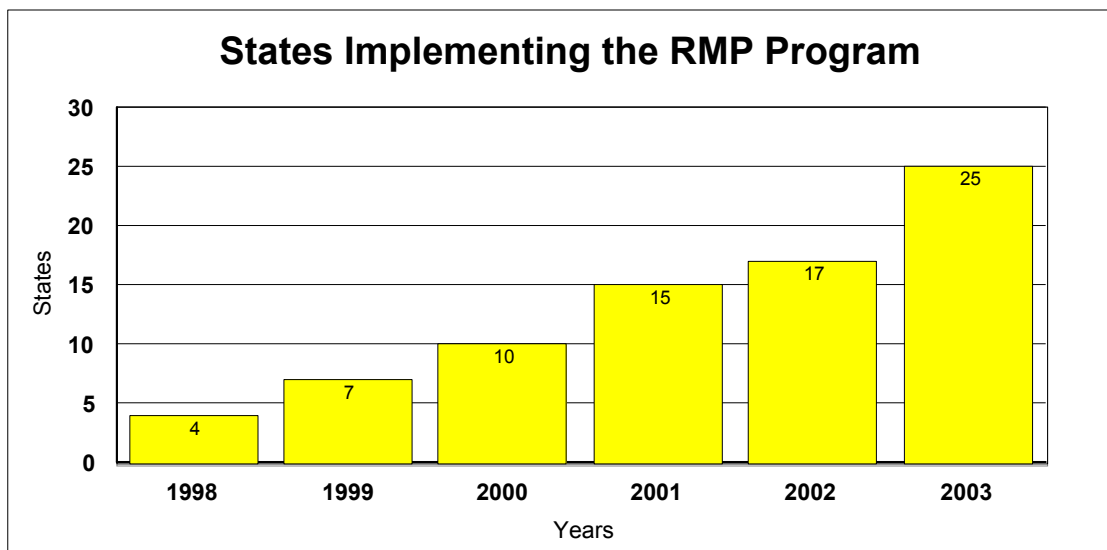
Each RMP identifies and assesses the hazards posed by on-site chemicals. It also provides a

five-year facility accident history and outlines an accident prevention program and an emergency response plan. The statutory deadline for filing RMPs was June 1999. While the numbers are still being tallied, EPA estimates that it will exceed its goal of 90% compliance by the end of FY 2002.

The requirements of the Risk Management Program regulations were built on practices currently used in many industries for process safety management. Each RMP describes the process safety management systems used by a facility for preventing accidents and documents the facilities' compliance with the regulation. A program priority in FY 2003 will be to transition the focus to auditing the quality of the risk management plans submitted while continuing to look for facilities that have not submitted their RMPs.

The Clean Air Act requires EPA to establish a system to audit RMPs. The audit system is used to continuously improve the quality of risk management programs as well as check compliance with the requirements. EPA regional offices will continue to manage RMP programs in those states that have not accepted delegation. In 2003, the Agency and other implementing agencies will perform audit obligations through a combination of desk audits of RMP plans and on-site facility inspections. A total of 300 audits will be conducted during this period. Audit selection will be based upon several criteria, including accident history, patterns of noncompliance, types and quantities of chemicals, and geographic location.

Due to the complexity and large number of RMP audits, EPA is exploring a third party audit program, where EPA would give RMP facilities the option to voluntarily undergo an audit by a qualified third party auditor in exchange for certain regulatory incentives, such as lower future audit



and enforcement priority. Financial incentives may also exist via the participation of insurance company representatives as third party auditors (lower premiums). EPA intends to have the third party audit program operational in FY 2003.

In FY 2003, in the regulatory area, the program expects to complete the second phase of streamlining EPCRA's reporting requirements and will complete regulatory action on changes

resulting from a statutorily required review of the RMP chemicals list. This review is intended to improve the scientific basis for listing chemicals, and add or delete chemicals based on the technical criteria for listing chemicals under the program.

Building State and Local Capabilities

One of EPA's vital roles is to help communities implement accident prevention and emergency preparedness programs. LEPCs (3,400 established under EPCRA) serve as the focal point for discussions on reducing chemical risks at the local level. Under the EPCRA and RMP programs, LEPCs take chemical inventory information, and information on how facilities are reducing the risk of accidents, and integrate it into their emergency plans and community right-to-know programs. In FY 2003, EPA will support LEPC efforts by providing tools, technical assistance and guidance to better enable them to use the information to reduce risks. EPA will also continue an initiative to improve and enhance emergency preparedness and prevention in Tribal communities.

EPA, in partnership with states, will promote implementation of the RMP program during FY 2003 (see chart). The Agency believes individual states are best suited to implement the program because they benefit directly from its success and have established relationships with the communities that may be at risk. EPA also believes that as state officials see their facilities achieve compliance, they will become motivated to seek delegation. The Agency will continue to emphasize flexibility in how states will be authorized to receive delegation and eventually implement the RMP program themselves. EPA will work with states to secure agreements to partially implement the RMP program and help them to develop and manage individual program components. In addition to this effort, EPA will provide states a combination of grant assistance, technical support, training, and other outreach services to help them fully develop and receive delegation of the program. The Agency's FY 2003 goal is for eight additional states to manage an RMP program, bringing the total number of authorized states to twenty-five.

In an effort to help implementing agencies, states, and prospective third party auditors acquire or improve skills required to conduct audits, EPA has identified an RMP audit curriculum. The training will be offered extensively throughout the country in FY 2003.

EPA will continue an initiative to analyze data contained in the RMPs. The Agency is examining trends and patterns in such areas as industry sector, facility size, geographic region, and chemicals. In particular, EPA is using epidemiological methods to analyze the RMP's five-year accident history data to explore accident risk factors and precursors.

Continuous Learning to Improve Safety

In FY 2003, EPA will continue to initiate ways of improving safety by studying hazards and providing outreach to industry, government and the public to enhance application of chemical safety measures. The program focuses on lessons learned from accidents and issues case studies and chemical safety alerts to reduce the risk of future accidents.

Relationship with Chemical Safety Board

The independent Chemical Safety Board (CSB) places responsibilities on the Agency with regard to chemical safety and accident prevention. The same Clean Air Act provisions that established the CSB requires EPA to respond to the Board's recommendations and provide support for its activities. EPA has completed a memorandum of understanding with the Board that delineates each agencies' role and working relationship. In FY 2003 EPA expects to continue activities of responding to CSB recommendations that result from investigations. For example, EPA is currently working with the Occupational Safety and Health Administration and the CSB on two recommendations associated with reactive chemical process safety arising from the Morton International chemical accident in New Jersey.

Oil Spills

The goal of the oil spill program is to protect public health and the environment from hazards associated with a discharge or substantial threat of a discharge of oil into navigable waters, adjoining shorelines, and exclusive economic zones of the United States. Based on data obtained from the National Response Center, each year more than 24,000 oil spills occur in the United States, over half of them within the inland zone over which EPA has jurisdiction. On average, one spill of greater than 100,000 gallons occurs every month from approximately 465,000 EPA-regulated oil storage facilities and the entire oil transportation network. Oil spills contaminate drinking water supplies; cause fires and explosions; kill fish, birds, and other wildlife; destroy habitats and ecosystems; and impact the food chain. There are also serious economic consequences of oil spills because of their impact on commercial and recreational uses of water resources and cleanup costs.

The oil spill program prevents, prepares for, responds to, and monitors oil spills. EPA protects U.S. waters through oil spill prevention, preparedness, and enforcement activities associated with the 465,000 non-transportation-related oil storage facilities EPA regulates through its pollution prevention program. In addition to its pollution prevention responsibilities, EPA serves as the lead responder for the inland zone for all spills, including non-transportation-related spills from pipelines, trucks, and other transportation systems (regulated by the Department of Transportation). EPA accesses the Oil Spill Liability Trust Fund (OSLTF), administered by the United States Coast Guard, to obtain reimbursement for site-specific spill response activities.

The oil spill program establishes requirements to prevent and prepare for spills at oil storage facilities subject to its regulations. The Oil and Hazardous Substances National Contingency Plan (NCP) is the Nation's blueprint for the federal response to discharges of oil and hazardous substances. The Spill Prevention, Control, and Countermeasures (SPCC) regulation and the Facility

Response Plan (FRP) regulation chiefly compose EPA's regulatory framework. The oil spill program is also responsible for publishing the National Product Schedule and subpart J of the NCP, which is a listing of dispersants, other chemicals, and other spill mitigating devices that may be used during response to oil discharges.

All regulated oil storage facilities must prepare SPCC plans. These facilities range from hospitals and apartment complexes storing heating oil to large tank farms, any oil storage facility with aggregate aboveground storage capacity greater than 1,320 gallons, or underground storage greater than 42,000 gallons (not otherwise subject to the UST program requirements). An additional 600 facilities will be in compliance with SPCC provisions in 2003 as a result of EPA's activities, for a cumulative total of 3,495 facilities since 1997. In addition, certain high-risk oil storage facilities must prepare FRPs to identify and ensure the availability of resources to respond to a worst case discharge, establish communications, identify an individual with authority to implement removal actions, and describe training and testing drills at the facility. In FY 2003, EPA will review a small number of FRPs. These EPA reviews are triggered by a large spill, a spill at a particularly high risk facility, or poor performance during an oil response exercise.

EPA also develops area contingency plans (ACPs), in conjunction with area committees (state, local and Federal officials in a given geographic location). The ACPs detail the responsibilities of various parties in the event of a response, describe unique geographical features of the area covered, and identify available response equipment and its location.

In FY 2003, EPA will continue efforts to revise and implement the SPCC regulation. EPA is planning to revise SPCC regulations, to reflect a more performance-based rule that emphasizes industry standards. This approach would represent a comprehensive overhaul of the basic regulatory structure of the current oil spill prevention program. The Agency anticipates undertaking a new and extensive outreach effort to the regulated community about industry compliance once a new rule is promulgated. The Agency must also train its own workforce of inspectors and other staff to assist in compliance assistance and enforcement of the anticipated revisions. In addition to these prevention efforts, EPA will continue its preparedness efforts by focusing on development of ACPs. Response efforts include evaluating, monitoring and/or responding to all known spills within the inland waterways. Over the past six years (1996-2001), EPA has received and evaluated approximately 56,000 oil spill notifications in the inland zone, served as lead responders at approximately 783 oil spills, and shared response responsibility with another party at approximately 1,145 responses.

Resource Conservation and Recovery

The Agency's Resource Conservation and Recovery Act (RCRA) program accounts for over 6,500 of the facilities addressed by this objective. The RCRA program, working in partnership with states, industry, and Tribes reduces the risk of human exposures to hazardous, industrial nonhazardous, and municipal solid wastes. Our most current information shows that each year communities generate approximately 230 million tons of municipal solid waste and that industries generate 40 million tons of industrial hazardous waste (not including wastewater) and more than 7.6 billion tons of industrial nonhazardous waste (including wastewater in surface impoundments).

A combination of regulations, permits, voluntary standards and programs ensure, to the greatest extent possible, safe management of these various wastes. New contaminated waste sites, possibly Superfund sites, could result from mismanagement of these wastes threatening nearby communities. In FY 2003, the RCRA program will focus on improving current waste management practices, providing greater regulatory flexibility and promoting opportunities for converting waste to future energy and raw material sources.

In addition to the overall base program improvements discussed below, EPA looks for opportunities to move the RCRA program into the future in innovative ways. In FY 2003, the Agency will continue to review where it can implement regulatory innovations in partnership with states and the regulated community, such as specific industry sectors, like metal finishing, or academic research laboratories. EPA will be proposing rules to reform the Definition of Solid Waste and will collaborate with Regions and states to clarify or revise existing policy related to hazardous waste recycling. For example, in FY 2003, EPA will promulgate regulations excluding cathode ray tubes from hazardous waste regulation. In FY 2003, the Agency will continue to experiment with projects to pilot test alternative regulatory requirements. For example, EPA will work with New Jersey to promote flexibility in hazardous waste regulation in its Gold Track program. The RCRA program is involved in over 20 XL projects and will monitor their results to determine whether broader regulatory reforms are warranted. EPA expects state partners to implement projects through the process jointly developed by Environmental Council of States and EPA, that would encourage economic savings and environmental management alternatives without compromising human health and the environment.

The RCRA program reduces the risk of exposures to dangerous hazardous wastes by maintaining a “cradle-to-grave” waste management framework. This framework regulates the handling, transport, treatment, storage, and disposal of hazardous waste, ensuring that improper management does not expose communities to hazards. The main vehicle for hazardous waste program implementation is the issuance of RCRA hazardous waste permits which mandate appropriate controls for each site. Hazardous waste management facilities have made significant progress in having appropriate controls in place to minimize the threat of exposure to hazardous substances. To date, 47 states, Guam and the District of Columbia are authorized to issue permits.

Strong state partnerships and the authorization of states for all portions of the RCRA hazardous waste program, including regulations that address waste management issues contained in permits, is an important goal. State Program Authorization provides the states with primary RCRA implementation and enforcement authority, reduces overlapping and dual implementation by the states and EPA, provides the regulated community with one set of regulations, reduces overall federal enforcement presence in the states and can provide the opportunity for some of the newer less stringent RCRA regulations to be implemented by the states. In FY 2003, the RCRA program will partner with the Regions and states to eliminate the greatest impediments to State Program Authorization, such as identifying and eliminating internal bottlenecks.

The Agency and the states have now permitted most operating land disposal sites (e.g., landfills), as well as most commercial incinerators. In a rulemaking designed to simplify the permitting process for lower-risk treatment and storage facilities, the Agency is developing a

standardized permit. EPA anticipates promulgating the final rule in FY 2002. In FY 2003, the RCRA program plans to give guidance and training on the standardized permit rule and implementation of the rule will begin. In addition, the program is investigating the feasibility of an e-permitting initiative in partnership with the states. Ideally this initiative will expedite and simplify the permitting process and provide better public access to permitting information.

In addition to making changes in the permitting process, the Agency looks to improve all other aspects of waste management throughout the RCRA program. The entry point to this system is the identification of hazardous waste. It is the Agency's responsibility to identify those wastes that, when mismanaged, may pose a substantial risk to human health and the environment, as well as to identify those wastes for which burden should be reduced because of low risk.

In FY 2003, the Agency's waste identification program will continue assessing whether releases of certain industrial wastes are capable of posing a substantial hazard to human health or the environment. During FY 2002, the Agency will assess whether additional hazardous waste identification work remains and implement, if necessary, any identified needs in FY 2003.

In line with efforts to better calibrate risk and regulatory standards, the Agency will continue work on developing targeted exemptions from the hazardous waste mixture and derived-from rules in FY 2003. Two exemptions will be in the final rule stage: one for certain solvents destined for wastewater treatment and discharge under the Clean Water Act, and another for slagged combustion residues from hazardous waste combustors. Work on three other targeted exemptions will likely be underway based on assessment work conducted in FY 2002: a biological treatment residue exemption, a non-slagged-combustion residue exemption and a leachate exemption.

In FY 2003, the Agency will finalize a rule establishing a consistent national approach for managing used industrial wipes, shop towels and rags containing hazardous solvents. As part of this effort, implementation guidance also will be developed to assist the thousands of small business which routinely use these particular materials.

The next step in waste management is transportation from the generator to a treatment, storage or disposal facility, a step the hazardous waste manifest system regulates and tracks. A rule proposed in May, 2001, for major manifest system changes is intended to greatly reduce the paperwork burdens on waste handlers and authorized states, while improving the effectiveness of tracking waste shipments. In FY 2003, the Agency will finalize this rulemaking and adopt appropriate manifest form revisions and standards for preparing, signing, and transmitting manifests electronically.

Treatment and disposal of hazardous waste is the primary area for many changes the Agency is making to the RCRA program. Combustion is one typical method of treatment of hazardous waste. Maximum achievable control technology (MACT) standards for hazardous waste burning incinerators, cement kilns and light weight aggregate kilns were vacated by the U.S. Court of Appeals for the District of Columbia Circuit, therefore the Agency must respond to the court's decision with a revised regulatory and implementation strategy. Technical assistance will be critical during FY 2002 and FY 2003 for ensuring appropriate controls over these major sources of

hazardous air pollutants. The Agency must also develop MACT standards for hazardous waste burning boilers and hydrochloric acid production furnaces in order to meet statutory obligations under the Clean Air Act (CAA).

In FY 2003, EPA will improve and expand activities designed to recover materials and energy from waste. In FY 2002, EPA will propose rule changes to promote the use of petroleum wastes as raw material in gasification processes, which produce clean gas fuels. In FY 2003, the Agency will finalize the proposed rule for petroleum streams and consider changes that also include a range of hazardous waste used in gasification. EPA will consider establishing partnerships with the Department of Energy, industry, and states to facilitate introduction of gasification technology. Potentially, this effort could turn as much as 2 million tons of hazardous waste, and larger amounts of solid and industrial waste, into clean energy.

The Agency will continue to collaborate with other Federal agencies, states, Tribes and industry to promote safe handling of wastes from mining, oil and gas production, electric utilities industries, and cement manufacturing. In FY 2003, the Agency plans to develop proposed Subtitle D regulations for placement of coal combustion wastes in landfills, surface impoundments, and in mines. This effort will cover large utilities as well as industrial burners of coal. EPA will coordinate this work with the Department of Energy and the Office of Surface Mining in the Department of the Interior.

The Agency also works to reduce risks from industrial non-hazardous waste, also known as Industrial D waste. Manufacturing facilities generate and dispose of 7.6 billion tons of industrial non-hazardous waste each year. Partnering with state agencies and industry, EPA issued draft guidelines for management of industrial solid wastes in FY 2000, and will be finalizing the guidelines in FY 2002. The guidelines address a range of issues related to the management of industrial non-hazardous waste, including the siting of waste management units, groundwater contamination, air emissions resulting from solid waste disposal, alternatives to waste disposal, such as recycling and waste prevention, monitoring, closure, and corrective action. The recommendations in these voluntary guidelines incorporate substantial flexibility for a broad range of approaches for dealing with a diverse set of waste streams which pose varying degrees of risk in various site-specific situations. In FY 2003, the Agency will work with states, industry, and community representatives to begin implementation of the voluntary guidelines for industrial non-hazardous waste management.

In FY 2003, the Agency will implement its strategy for revising its landfill criteria. Revisions will provide additional flexibility for states and the regulated community. Additionally, revisions will provide for bioreactor technology as a future energy source. Studies have indicated that bioreactor landfill technology results in a significant increase in landfill gas emissions over a short period of time. These landfill gases consist primarily of methane and carbon dioxide. Landfill gas may represent an opportunity for gas collection and beneficial reuse for projects such as energy recovery. Currently, the use of landfill gas for energy applications is about 10% of its potential. Application of the controlled bioreactor technology to 50% of the waste currently being landfilled could provide over 270 billion cubic feet of methane yearly, sufficient to supply 1% of the U.S. electrical needs based on the U.S. Department of Energy estimates.

The use of biomass as a renewable resource for bio-based products and bio-energy can result in additional farm income, as well as less reliance on foreign energy sources, such as oil. Currently, bio-based products and the bio-energy industry remain small and fragmented. EPA will partner with federal agencies and states to coordinate and promote a unified national bio-energy strategy creating a strong momentum for the expansion of this program.

Waste management, particularly issues surrounding disposal in open dumps, is a significant environmental concern for tribes. A 1997 report to Congress by the Indian Health Service identified 143 high-threat open dumps on tribal lands. In FY 2003, the Agency will continue its leadership role in the interagency program directed toward closing open dumps and/or ensuring that those municipal solid waste landfills in tribal country that wish to remain operating comply with regulations and work toward the most efficient and effective solutions that result in the greatest positive environmental impact. Agencies participating in this program include the Bureau of Indian Affairs, Indian Health Service, and others. The Agency will also assist tribal governments in building both municipal and hazardous waste management capacity.

Better technology also improves the entire RCRA program. In FY 2003, EPA plans to continue its redesign of the national information system (RCRAInfo) for management of hazardous waste. Working with state partners, the Agency is engaged in a multi-year review of the RCRA hazardous waste management information needs in an effort to improve the quality of each site's data, provide improved access to information based on current technology, reduce burden to information based on current technology, and reduce burden to data providers.

Radiation Waste Management

The Radiation program will continue its efforts to address excessive radiation exposure to the public by setting priorities in waste management, clean material, and emergency response. EPA will certify that all radioactive waste shipped by the Department of Energy (DOE) to the Waste Isolation Pilot Plant (WIPP) is permanently disposed of safely and according to EPA standards. The WIPP, which began receiving waste for permanent disposal in 1999, must undergo recertification every 5 years. In FY 2003, the Agency will begin the WIPP's recertification process to ensure the site complies with applicable environmental laws and regulations.

The Agency will also implement the clean materials program by working with the Department of State, Customs Service, other Federal agencies, state agencies, and international organizations to prevent metals and finished products suspected of having radioactive contamination from entering the country. In addition, EPA will also work to locate and secure lost, stolen or abandoned radioactive sources within the United States.

EPA will also evaluate human health and environmental risks from radiation exposure and to further the basic understanding of the biological effects of radiation. EPA will also implement its strategy to address Technologically Enhanced Naturally Occurring Radioactive Material issues in conjunction with other Federal agencies, states, tribes, industry, and environmental groups. Finally, EPA will build the necessary information systems to provide the public access to information about

radiation emissions across the country.

In order to strengthen the abilities of EPA, the States, and other Federal Agencies to prepare and respond to radiological emergencies, the Agency will continue to develop continuity of operation plans and ensure the readiness of response laboratories and monitoring equipment.

Research

To support the Agency's objective of managing active waste management facilities to prevent contaminant releases into the environment, the Agency will conduct research in multimedia science and waste management, as well as perform technical support activities.

Multimedia Science

The Hazardous Waste Identification Rule (HWIR) is being proposed by EPA to provide administrative and economic relief to the regulated community by developing a risk-based approach expected to exclude many low-risk wastes and waste streams from regulatory control under Subtitle C of the Resource Conservation and Recovery Act (RCRA). As the modeling component to HWIR, the Multimedia, Multipathway, and Multi-receptor Exposure and Risk Assessment (3MRA) methodology has been developed and is being improved to provide the scientific underpinnings for this new regulatory approach. This approach has the potential to save millions of dollars annually. Research to be continued or undertaken in FY 2003 and beyond will include:

- improving and making more realistic some of the existing physical, chemical, and biological processes algorithms found in the current system;
- adding the capability for site-specific data input and risk assessments;
- enhancing the technology with more comprehensive uncertainty assessment capabilities; and
- implementing a comprehensive independent testing and validation program.

A major product in FY 2003 will be enhancements to the 3MRA modeling system to support site-specific risk assessments. EPA also will provide consultation on sampling and sample design related to compliance with proposed HWIR "exit levels" (levels below which a waste or waste stream is excluded from regulation under RCRA Subtitle C).

Risk assessment research, another facet of the active waste management research program, will develop provisional toxicity values for a number of contaminants that currently lack values using relevant toxicity and epidemiologic studies from the scientific literature, and will pursue other indirect methods to estimate toxicity.

Waste Management

A number of significant technical problems remain related to waste management. Certain hazardous waste disposal techniques need to be reevaluated and improved to ensure releases are minimized. For example, the solidification/stabilization (S/S) standards for some metals that were

established a decade ago as Best Demonstrated Available Treatment (BDAT) under the Land Disposal Regulations has failed in some cases. Improved techniques to actually predict such releases need to be developed so that EPA can predict the effectiveness of S/S under different disposal environments.

In conjunction with drinking water research in Goal 2, research will continue on hard-to-treat wastes that focus on the characterization and treatment of arsenic-bearing residuals. Leaching studies also will continue on arsenic-bearing wastes, mine process wastes, and municipal solid wastes, including those in bioreactors.

In the area of municipal and solid waste disposal, an increasing number of companies are starting to design landfills as bioreactors to save space and reduce long-term liabilities. These units operate in a significantly different manner than conventional landfills; for example, bioreactors generally have much higher water content and produce more methane gas. Therefore, the effectiveness of such systems and their environmental impacts are still uncertain. In FY 2003, EPA will conduct field sampling and monitoring of several landfill bioreactors, continue the characterization of the microbiology of bioreactor cells, and initiate a bioreactor design manual. Results of these efforts will include an interim field assessment of a landfill bioreactor system.

Another aspect of waste management research involves hazardous waste combustion. Efforts in this area address incinerators and industrial combustion systems burning waste. Emissions from these facilities remain a public concern and a number of uncertainties about them exist, including the cumulative impact of continuous emissions from multiple combustion facilities. In FY 2003, work on continuous emissions monitors will continue with a focus on dioxins and other products of incomplete combustion (PICs). Results will include a paper on revised total organic emissions methodologies for use in permitting.

Technical support activities in risk management and risk assessment associated with RCRA Corrective Action will also continue in the form of support centers. These centers include the Engineering Technical Support Center, the Ground Water Technical Support Center, and the Combustion Technical Assistance Center. These centers provide site-specific technical support, scientific questions (e.g., human health and environmental toxicity), and technology transfer documents.

FY 2003 Change from FY 2002 Enacted

EPM:

- C (-\$1,100,000) The FY 2003 request is \$1,100,000 below the FY 2002 Enacted budget level due to Congressional earmarks received during the appropriations process that are not part of the FY 2003 President's request.
- C (+\$794,3000) Resources, dollars and FTE, associated with rent are allocated in proportion to Agency-wide FTE located in each goal, objective. Resources, dollars and FTE, associated with utilities, security and human resource operations are allocated in proportion to Headquarters FTE located in each goal, objective. Changes reflect shifts in FTE between goals and objectives. Resources, dollars and FTE, associated with contracts and grants are allocated in proportion to Headquarters' contracts and grants resources located in each goal, objective. Changes in these activities reflect shifts in resources between goals and objectives. *(Total changes - rent: -\$3,569,400, utilities: +\$3,468,000, Security: -\$9,103,900. Nominal increases/decreases occurred in human resource operations, grants and contracts related activities.)*

STAG:

- No change

OIL:

- No change

S&T

- (-\$1,000,000) The FY 2003 request is \$1,000,000 below the FY 2002 Enacted budget level due to Congressional earmarks received during the appropriations process that are not part of the FY 2003 President's request.

Annual Performance Goals and Measures

UST Compliance

- In 2003 EPA and its state and tribal partners will ensure that 80% of UST facilities will be in significant operational compliance with leak detection requirements, and 85% of UST facilities will be in significant operational compliance with spill, overfill and corrosion protection regulations.
- In 2002 EPA and its state and tribal partners will ensure that 77% of UST facilities will be in significant operational compliance with leak detection requirements, and 82% of UST facilities will be in significant operational compliance with spill, overfill and corrosion protection regulations.
- In 2001 The Agency now tracks the number of UST facilities in significant operational compliance with requirements, as opposed to the number of UST systems equipped to meet the requirements. For this reason, data on these two measures is not available and will not be available in the future.

Performance Measures:

FY 2001

FY 2002

FY 2003

	Actual	Enacted	Request	
Percentage of USTs in compliance with the 1998 deadline requirements.	not available			compliance
Percentage of USTs in compliance with the leak detection requirements.	not available			compliance
Percentage of UST facilities in significant operational compliance with leak detection requirements.		77	80	percent
Percentage of UST facilities in significant operational compliance with spill, overfill and corrosion protection regulations.		82	85	percent

Baseline: EPA has worked with stakeholders to develop new measures that will account for significant operational compliance. Data are being collected in FY 2001 and a new baseline should be available in FY 2002.

Emergency Planning

- In 2003 300 audits will be completed on RMP plans to determine completeness and accuracy, and 8 additional states (for a cumulative total of 25) will be implementing accident prevention programs.
- In 2002 90% of facilities will be submitting RMPs, 2 states (for a cumulative total of 17) will be implementing accident prevention programs and 300 audits will be completed on RMP plans to determine completeness and accuracy.
- In 2001 EPA met its goal, with 85% of facilities submitting RMPs, 5 additional states implementing Accident Prevention Programs, and 438 audits completed to determine RMP completeness and accuracy.

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	
Percentage of facilities which have submitted RMPs.	85	90%		facilities
RMP audits completed.	438	300	300	audits
Number of states implementing accident prevention programs.	5	2	8	states

Baseline: By FY 2000, 75% of facilities were compliant with RMP requirements and 10 states were implementing accident prevention programs.

Oil Spill Prevention Compliance

- In 2003 600 additional facilities will be in compliance with the Spill Prevention, Control and Countermeasure (SPCC) provisions of the oil pollution prevention regulations, for a cumulative total of 3,495 facilities since 1997.
- In 2002 550 additional facilities will be in compliance with the Spill Prevention, Control and Countermeasure (SPCC) provisions of the oil pollution prevention regulations, for a cumulative total of 2,895 facilities since 1997.
- In 2001 EPA confirmed an additional 593 facilities in compliance with spill prevention, control, and countermeasures (SPCC) provisions, for a cumulative total of 2,345 facilities in compliance since 1997.

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	
Facilities in SPCC compliance.	593	550	600	facilities

Baseline: 1,752 facilities were in compliance in FY 2000.

Oil Spill Response

In 2003 Respond to or monitor 300 significant oil spills in the inland zone.

In 2002 EPA will respond to or monitor 300 significant oil spills in the inland zone.

In 2001 EPA significantly exceeded its goal by responding to 249 oil spills and monitoring 278 oil spills.

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	
Oil spills responded to by EPA.	249			spills
Oil spills monitored by EPA.	278			spills
Oil spills responded to or monitored by EPA.		300	300	spills

Baseline: EPA typically responds to 70 oil spills and monitors 130 oil spill cleanups per year.

Ensure WIPP Safety

In 2003 Certify that 8,000 55 gallon drums of radioactive waste (containing approximately 24,000 curies) shipped by DOE to the Waste Isolation Pilot Plant are permanently disposed of safely and according to EPA standards.

In 2002 Certify that 6,000 55 gallon drums of radioactive waste (containing approximately 18,000 curies) shipped by DOE to the Waste Isolation Pilot Plant are permanently disposed of safely and according to EPA standards.

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	
Number of 55-Gallon Drums of Radioactive Waste Disposed of According to EPA Standards		6,000	8,000	Drums

Baseline: The Waste Isolation Pilot Plant (WIPP) near Carlsbad, NM was opened in May 1999 to accept radioactive transuranic waste. By the end of FY 2002, approximately 13,000 (cumulative) 55 gallon drums will be safely disposed. In FY 2003, EPA expects that DOE will ship an additional 8,000 55 gallon drums of waste to WIPP so that 2.4% of the planned waste volume, based on disposal of 860,000 drums over the next 40 years, is permanently disposed of safely and according to EPA standards. Number of drums shipped to the WIPP facility on an annual basis is dependent on DOE priorities and funding. EPA volume estimates are based on projecting the average shipment volumes over 40 years with an initial start up.

RCRA Facility Standards and Compliance

In 2003 77.2% of the hazardous waste management facilities will have approved controls in place to prevent dangerous releases to air, soil, and groundwater. This represents an additional 39 facilities meeting the goal this year.

In 2002 75.8% of the hazardous waste management facilities will have approved controls in place to prevent dangerous releases to air, soil, and groundwater, representing an average increase of 39 additional facilities per year.

In 2001 An additional 249 hazardous waste management facilities have permits or other approved controls in place, for a cumulative total of 2,051 or 74% of the facility universe. The streamlined permitting standards rule was proposed October 12, 2001.

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	
Propose final streamlined permitting standards	1			rulemaking
Percent RCRA hazardous waste management facilities with permits or other approved controls in place.	74%	75.8	77.2	percent
Promulgate final streamlined permitting standards.		1		rulemaking
Initiate training program for new permitting standards.			1	training

Baseline: EPA established a baseline of approximately 2,750 facilities in October 2000.

Tribal Prevention Assistance

- In 2003 EPA will provide grants to those tribes identified as having facilities subject to the Emergency Planning and Community Right-to-know Act (EPCRA).
- In 2003 EPA will evaluate RCRA Subtitle C management needs for an additional 36 Federally recognized tribes.
- In 2003 EPA will facilitate closing or upgrading existing high-threat open dumps on Indian Lands.
- In 2002 EPA will evaluate RCRA Subtitle C management needs for an additional 18 Federally recognized tribes.
- In 2002 EPA will facilitate closing or upgrading existing high-threat open dumps on Indian lands.
- In 2002 EPA will identify tribes where chemical facilities subject to Emergency Planning and Community Right to Know Act (EPCRA) requirements exists and have tribal emergency preparedness programs in place to address those risks.
- In 2001 Data is currently unavailable for the open dumps cleanup project.
- In 2001 EPA developed a tribal strategy to promote development of tribal chemical emergency preparedness programs.
- In 2001 EPA evaluated the needs of 177 tribes in FY 2001.

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	
Develop surveys and begin data collection.		1		data gathering
Provide funding assistance.			no target	grants
Development of draft strategy.	1			draft strategy
Tribes evaluated.	177	18	36	evaluations
Open dumps assessed.	not available	no target	no target	assessments
Open dumps upgraded to comply with Subtitle D landfill standards.	not available	no target	no target	upgrades
Open dumps with contents transferred and protections against future dumping in place.	not available	no target	no target	sites
Provide support and funding to tribes participating in the multi-Agency Tribal Open Dump Cleanup Project.		no target	no target	funding

Baseline: EPA is currently working to assess the number of tribes with chemical hazards on tribal lands.

Research

Scientifically Defensible Decisions for Active Man

- In 2003 Deliver scientifically-enhanced 3MRA to OSW for their HWIR proposal and provide OSW/Regions with site-specific version of this exposure and risk assessment modeling system to implement HWIR and other applications for more cost-effective waste site management and protection of health and environment.
- In 2001 EPA provided technical information to support RCRA regulatory development for waste identification, containment, and combustion.

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	
Update the HWIR99 modeling methodology for delisting hazardous wastes, in response to public comments on 1999 Federal Register Notice	1			update
Deliver science based enhancements to the 3MRA modeling system to support OSW's proposed HWIR and for conducting site-specific risk assessments.			1	model

Baseline: As a result of their regulatory reform efforts, OSW introduced in November 1999, a new open-architecture, multimedia, multipathway, and multi-receptor exposure and risk assessment (3MRA) methodology designed to support their Hazardous Waste Identification

Rule (HWIR). Independent software testing, peer review on the system architecture and its internal science modules, and public comments on the Federal Register announcement are being addressed through refinements to the proposed modeling system. We also are improving some of the existing physical, chemical, and biological processes algorithms in the current system. The enhanced version will be used to support OSWs proposed HWIR (Proposal and Final Rule are expected about FY03 and FY05, respectively) which will update existing waste disposal regulations to eliminate possible over-regulation; 3MRA will serve as the scientific basis for establishing safe exit levels for certain wastes. The site-specific version will expand the screening level assessment capabilities to provide for site-specific exposure and risk assessments that will be used in HWIR implementation and other RCRA applications.

Verification and Validation of Performance Measures

Performance Measure (PM): Percentage of USTs in significant operational compliance with leak detection requirements; Percentage of USTs in significant operational compliance with spill, overfill and corrosion protection regulations.

Performance Database: EPA does not maintain a national database for this information.

Data Source: Designated state agencies submit semi-annual progress reports to the EPA regional offices.

QA/QC Procedures: EPA regional offices verify the data and then forward them EPA Headquarters, where staff examine the data and resolve any discrepancies with the regional offices. The data are displayed in a document on a region-by-region basis, which allows regional staff to again verify their data.

Data Quality Reviews: None.

Data Limitations: This process relies on accuracy and completeness of state records.

New/Improved Data or Systems: None.

Congressional Performance Measure (PM): Percent of RCRA hazardous waste management facilities with permits or other approved controls in place.

Performance Database: The Resource Conservation Recovery Act Information System (RCRAInfo) is the national database which supports EPA's RCRA program. RCRAInfo contains information on entities (generically referred to as "handlers") engaged in hazardous waste (HW) generation and management activities regulated under the portion of RCRA that provides for regulation of hazardous waste. RCRAInfo has several different modules, including status of RCRA facilities in the RCRA permitting universe.

Data Source: EPA regions and authorized states enter data on a rolling basis.

QA/QC Procedures: States and Regions generate the data and manage data quality related to timeliness and accuracy (i.e., the environmental conditions and determinations are correctly reflected by the data). Within RCRAInfo the application software enforces structural controls that

ensure that high-priority national components of the data are properly entered. RCRAInfo documentation, which is available to all users on-line, provides guidance to facilitate the generation and interpretation of data. Training on use of RCRAInfo is provided on a regular basis, usually annually, depending on the nature of system changes and user needs.

Data Quality Review: GAO's 1995 Report on EPA's Hazardous Waste Information System reviewed whether national RCRA information systems support meeting the primary objective of helping EPA and states manage the hazardous waste program. Recommendations coincide with ongoing internal efforts (WIN/Informed) to improve the definitions of data collected, ensure that data collected provide critical information and minimize the burden on states.

Data Limitations: No data limitations have been identified.

New/Improved Data or Systems: EPA has successfully implemented new tools for managing of environmental information to support federal and state programs, replacing the old data systems (the Resource Conservation and Recovery Information System and the Biennial Reporting System) with RCRAInfo. RCRAInfo allows for tracking of information on the regulated universe of RCRA hazardous waste handlers, such as facility status, regulated activities, and compliance history. The system also captures detailed data on the generation of hazardous waste by large quantity generators and on waste management practices from treatment, storage, and disposal facilities. RCRAInfo is web accessible, providing a convenient user interface for Federal, state and local managers, encouraging development of in-house expertise for controlled cost, using commercial off-the-shelf software to develop reports from database tables.

Performance Measure: Number of drums of radioactive waste disposed of according to EPA standards.

Performance Data: The Department of Energy (DOE) Waste Isolation Pilot Plant (WIPP) database contains the number of drums shipped by DOE waste generator facilities and placed in the DOE WIPP.

Data Source: Department of Energy

QA/QC Procedures: The performance data used by EPA are collected and maintained by DOE. Under EPA's WIPP regulations, all DOE WIPP-related data must be collected and maintained under a comprehensive quality assurance program meeting consensus standards developed by the American Society of Mechanical Engineers (ASME). EPA conducts regular inspections to ensure that these quality assurance systems are in place and functioning properly; no additional QA/QC of the DOE data is conducted by EPA.

Data Limitations: The DOE WIPP database contains the number of drums shipped by DOE waste generator facilities and placed in the DOE WIPP. Currently, there are five DOE waste generator facilities, Los Alamos National Laboratory, Rocky Flats Environmental Technology Site, Hanford Site, Idaho National Engineering and Environmental Laboratory, Savannah River Site that are approved to generate and ship waste.

Before DOE waste generator facilities can ship waste to the WIPP, EPA must approve the waste characterization controls and quality assurance procedure for waste identification at these sites. EPA conducts frequent independent inspections and audits at these sites to verify continued compliance with radioactive waste disposal standards and to determine if DOE is properly tracking the waste and adhering to specific waste component limits. Since 1998, EPA has completed over 30 inspections prior to shipment of waste to the WIPP facility.

Once EPA gives its approval, the number of drums shipped to the WIPP facility on an annual basis is dependent on DOE priorities and funding. EPA volume estimates are based on projecting the average shipment volumes over 40 years with an initial start up.

New/Improved Data or Systems: None

Coordination with Other Agencies

State UST programs are key to achieving the objectives and long-term strategic goals. EPA relies on state agencies to implement the UST program, including developing core program capabilities and promoting and enforcing compliance with the UST requirements.

Because many agencies at all levels of government have authority to regulate and implement aspects of hazardous materials safety programs, coordination is essential for the success of EPA initiatives. On the chemical accident preparedness and prevention side, inter-agency coordination remains a critical factor in accomplishing the goals of the Risk Management and EPCRA programs. The Agency's role in carrying out these initiatives is to provide leadership and support. EPA works in partnership with states and local governments and other organizations to promote actions to reduce risk. EPA also provides technical assistance and tools to states and LEPCs to better utilize the information on chemical hazards and risks available to them. In addition, through the rulemaking process, EPA works closely with our Federal partners (DOJ, OSHA, DOT) and with states to ensure compatibility with new and existing accident preparedness and prevention initiatives. Close coordination and a cooperative working relationship is also required to effectively meet our responsibilities in the Chemical Safety program, most importantly where they involve the Chemical Safety Board (CSB). EPA has completed a memorandum of understanding with the CSB which further delineates this working relationship.

Under the Oil Spill program, EPA works with other Federal agencies such as the United States Fish & Wildlife Service, National Oceanographic and Atmospheric Administration, United States Coast Guard, Federal Emergency Management Agency, Department of the Interior, Department of Transportation, Department of Energy, and other Federal agencies and states, as well as with local government authorities to develop area contingency plans. The Department of Justice also provides assistance to agencies with judicial referrals when enforcement of violations becomes necessary. EPA and the United States Coast Guard work in coordination with other Federal authorities to implement the National Preparedness for Response program.

The Agency maintains a close partnership with state agencies to implement the RCRA

Permitting and Municipal Solid Waste (MSW) landfill programs. States are to achieve the same level of protection as the Agency, including the annual performance goals of controls at hazardous waste facilities and MSW landfills. Regional offices negotiate with the state agencies regarding the goals and performance they will achieve with the grant funds. For example, Regions may negotiate with the state agencies the number of facilities they will permit in a year resulting in approved controls in place at facilities. The Agency will continue our partnership effort with state agencies by providing technical assistance and guidance on implementing permitting and MSW Landfill programs.

The Agency works with tribes to ensure compliance under RCRA on Indian lands. Regional RCRA tribal teams are partnering with the Indian Health Service (IHS) and the Bureau of Indian Affairs (BIA) to address open dump issues on tribal lands. Regional offices establish interagency workgroups in states where partnership with these Federal agencies have not been well established. Workgroup representatives from other Federal agencies coordinate tasks based on the field of expertise within each agency which allows for efficient completion of the open dump initiative without overlapping efforts.

Research

EPA developed a Memorandum of Understanding (MOU) with several other agencies (Department of Energy, the Department of Defense, Nuclear Regulatory Commission, Department of the Interior - US Geological Survey, and the Department of Agriculture) for multimedia modeling research and development; contacts with the other agencies have been developed largely as a spin-off of the successful 3MRA modeling program in EPA. The multi-agency coordination will avoid inefficient duplication, and allows each agency or department partner to benefit from the best expertise available on any subject area.

With respect to waste management issues, cooperation is taking place with other outside elements. Currently, EPA has the lead in providing regulatory guidance for solid waste disposal issues. The Agency has also worked extensively with bioreactor technology, in cooperation with states and private industry, and will continue to do so in FY 2003. In conjunction with the Association of State and Territorial Solid Waste Management Officials (ASTSWMO) and the National Council of Governors, EPA state programs have been actively analyzing new operating configurations for landfills. The Interstate Technical Regulatory Cooperation (ITRC) has proved a good forum for coordinating Federal and state activities and for defining continuing research needs. All of these efforts help bridge the gaps in the Agency's own research programs.

Statutory Authorities

- C Solid Waste Disposal Act as amended by the Hazardous and Solid Waste Amendments of 1984
- C Title III (Emergency Planning and Community Right-to-Know Act) of CERCLA, as amended by Superfund Amendments and Reauthorization Act (SARA) of 1986
- C Clean Air Act Section 112
- C Waste Isolation Pilot Plant Land Withdrawal Act of 1992, P.L. 102-579
- C Nuclear Waste Policy Act of 1982, P.L. 97-425
- C Energy Policy Act of 1992, P.L. 102-486
- C Atomic Energy Act of 1954, as amended, 42 U.S.C. 2011 *et seq.* (1970), and Reorganization Plan #3 of 1970
- C Uranium Mill Tailings Radiation Land Withdrawal Act of 1978
- C Public Health Service Act, as amended, 42 U.S.C. 201 *et seq.*
- C Chemical Safety Information, Site Security and Fuels Regulatory Release Act, 1999.
- C Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended, 42 U.S.C. 5121 *et seq.*
- C Executive Order 12241 of September 1980, National Contingency Plan, 3 CFR, 1980
- C Executive Order 12656 of November 1988, Assignment of Emergency Preparedness Responsibilities, 3 CFR, 1988
- C Oil Pollution Act (OPA), 33 U.S.C. 2701 *et seq.*
- C Clean Water Act (CWA), Section 311.
- C Safe Drinking Water Act, 42 U.S.C. 300f *et seq.* (1974)
- C Clean Air Act Section 112

Research

- C Solid Waste Disposal Act (SWDA)

- C Resource Conservation and Recovery Act (RCRA)
- C Hazardous and Solid Waste Amendments (HSWA)
- C The Clean Air Act Amendments (CAA)