United States
Environmental Protection
Agency

Office of Enforcement
and Compliance
Assurance (2261-A)

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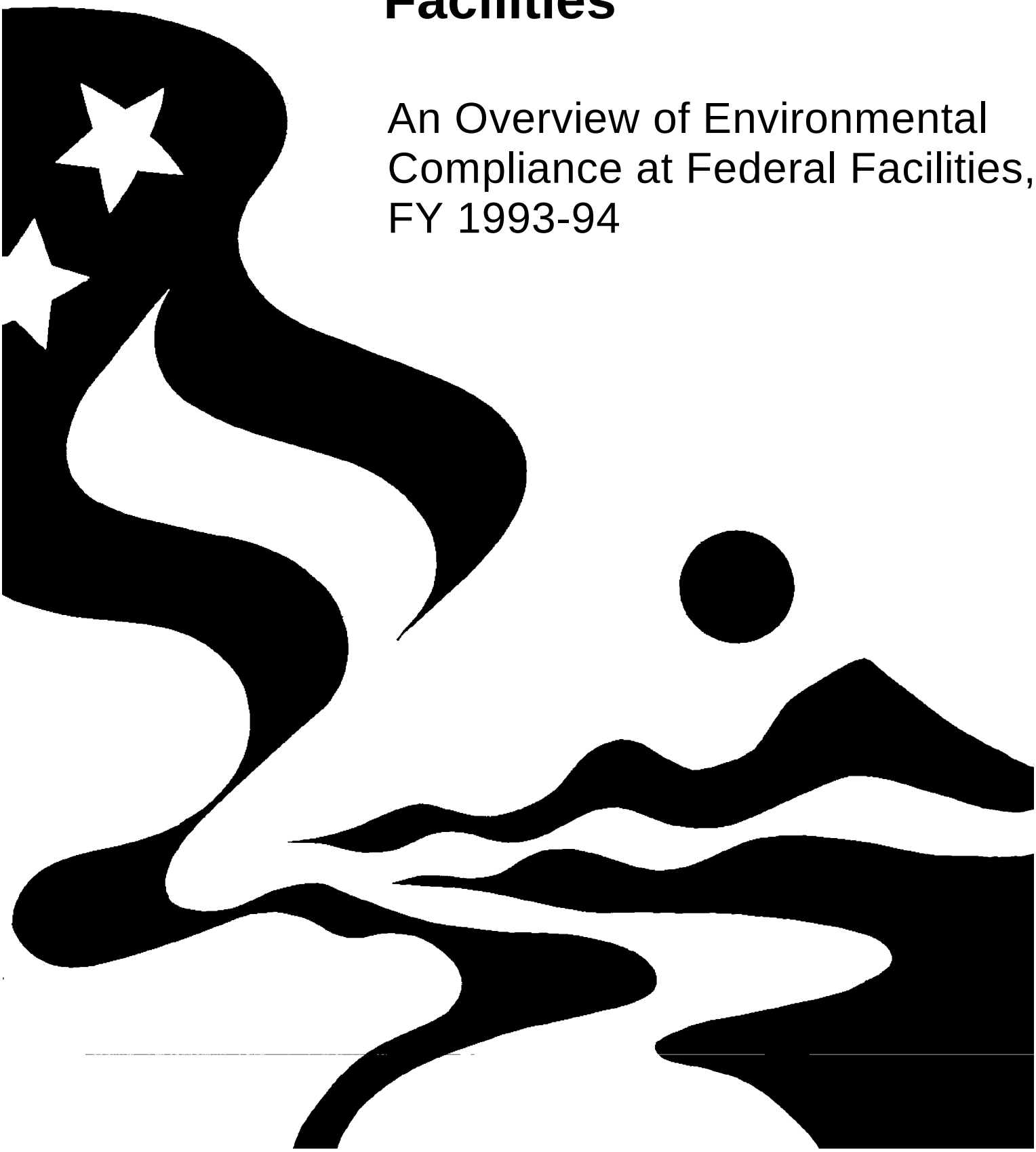
The State of Federal Facilities

An Overview of Environmental Compliance at Federal Facilities, FY 1993-94



EXECUTIVE SUMMARY

EPA's Federal Facilities Enforcement Office (FFEO) within the Office of Enforcement and Compliance Assurance prepared this *State of Federal Facilities* report to obtain a snapshot of the compliance issues and problems confronting Federal facilities. The report also helps FFEO to better understand its own programmatic strengths and potential areas for improvement.

Environmental Requirements

Environmental requirements affecting Federal facilities range from Federal statutes and their implementing regulations to State and local laws and ordinances. This report summarizes Federal facility performance with respect to the following major environmental statutes and programs:

- Resource Conservation and Recovery Act (RCRA)
- Clean Water Act (CWA)
- Safe Drinking Water Act (SDWA)
- Clean Air Act (CAA)
- Toxic Substances Control Act (TSCA)
- Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)
- Emergency Planning and Community Right-to-Know Act (EPCRA)
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)
- Base Realignment and Closure (BRAC)

Before discussing specific environmental programs, it is necessary to provide some background information on the universe of Federal facilities.

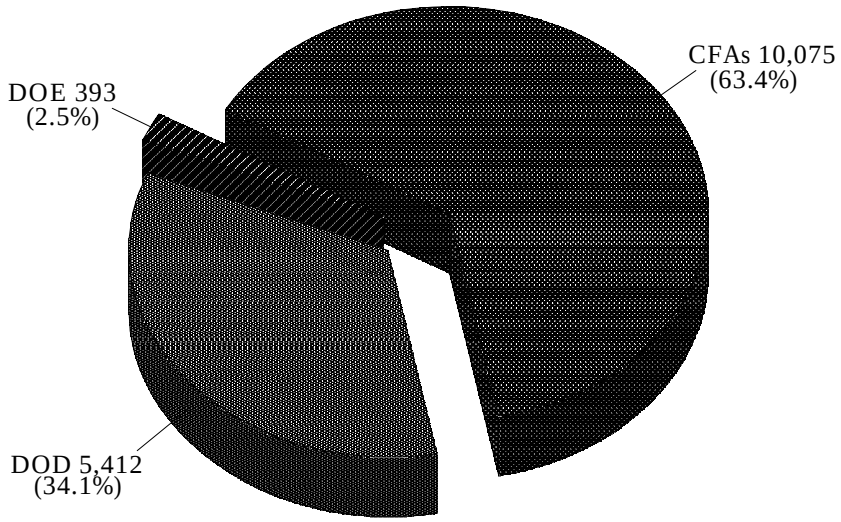
Overview of Federal Facilities

Federal facilities typically comprise a fairly small portion (i.e., less than five percent) of the universe of facilities regulated under the environmental statutes and programs covered by this report. However, the nature of environmental issues they face increases the importance of promoting environmental awareness and leadership at Federal facilities.

According to the Federal Facilities Tracking System, as of FY 1994 there were approximately 15,880 Federal facilities engaged in some type of activity regulated by environmental requirements. These facilities can be grouped into three broad categories -- Department of Defense (DOD), Department of Energy (DOE), and Civilian Federal Agency (CFA) facilities. A breakdown of Federal facilities by agency category is presented in Exhibit ES - 1.

Exhibit ES - 1

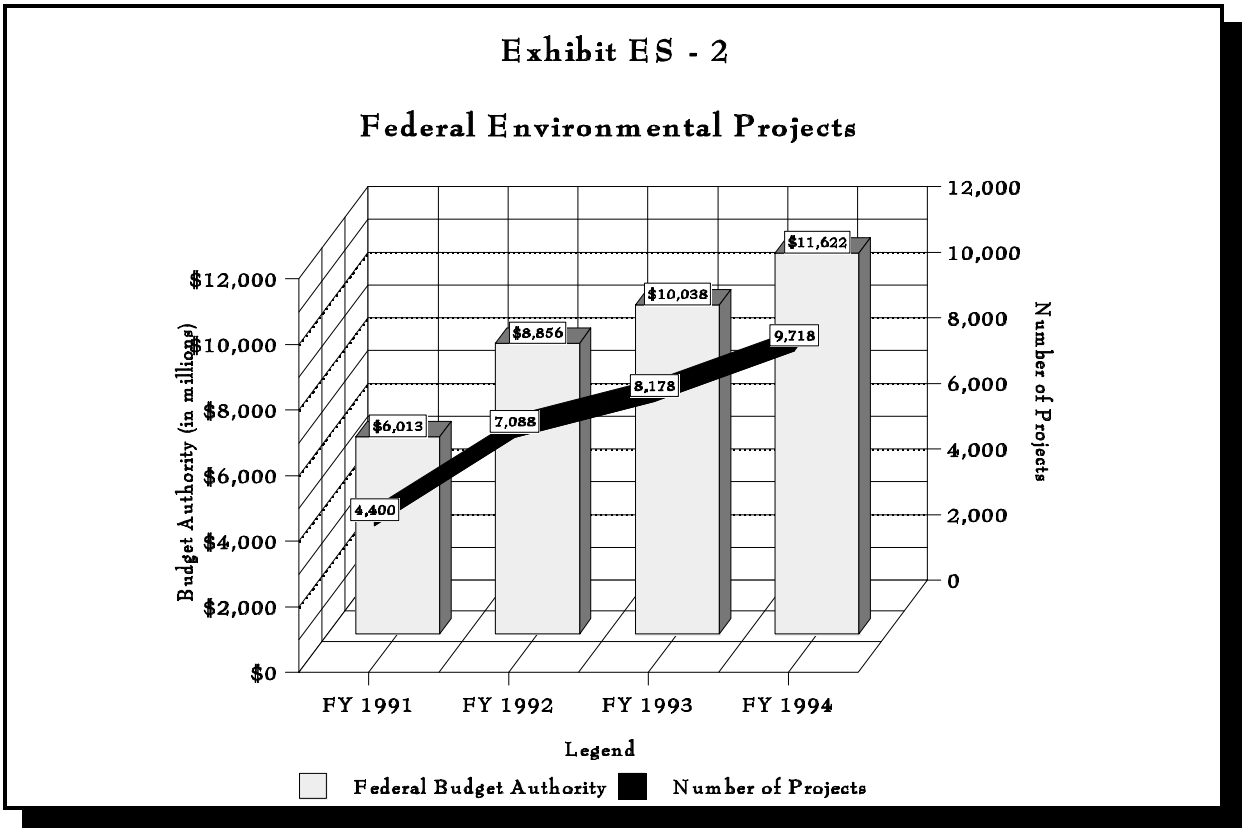
Federal Facilities by Agency Category (FY 1994)



N = 15,880 Federal facilities

DOD and DOE facilities typically include military bases, manufacturing plants, and laboratory facilities. The universe of CFA facilities is more diverse, and reflects the range of activities conducted by these agencies. Examples of CFA facilities include: Coast Guard installations, agricultural research stations, penitentiaries, environmental laboratories, electric power generation stations, and various storage facilities.

As shown in Exhibit ES - 2, both the number of environmental projects undertaken by Federal agencies and their corresponding funding levels have approximately doubled since FY 1991. DOE and DOD account for more than 98 percent of spending on environmental projects (53.1 percent and 45.1 percent, respectively, of the total budgeted authority in FY 1994).



Environmental Compliance

Because of differences in how EPA and States define and assess compliance under different environmental programs, ***it is not feasible to develop a single compliance indicator that yields meaningful comparisons across programs***. However, evaluating selected compliance indicators over time can reveal how Federal facilities are performing with respect to individual programs. Exhibit ES - 3 presents compliance indicators intended to measure the level of relatively serious noncompliance at major Federal facilities. These indicators are summarized below.

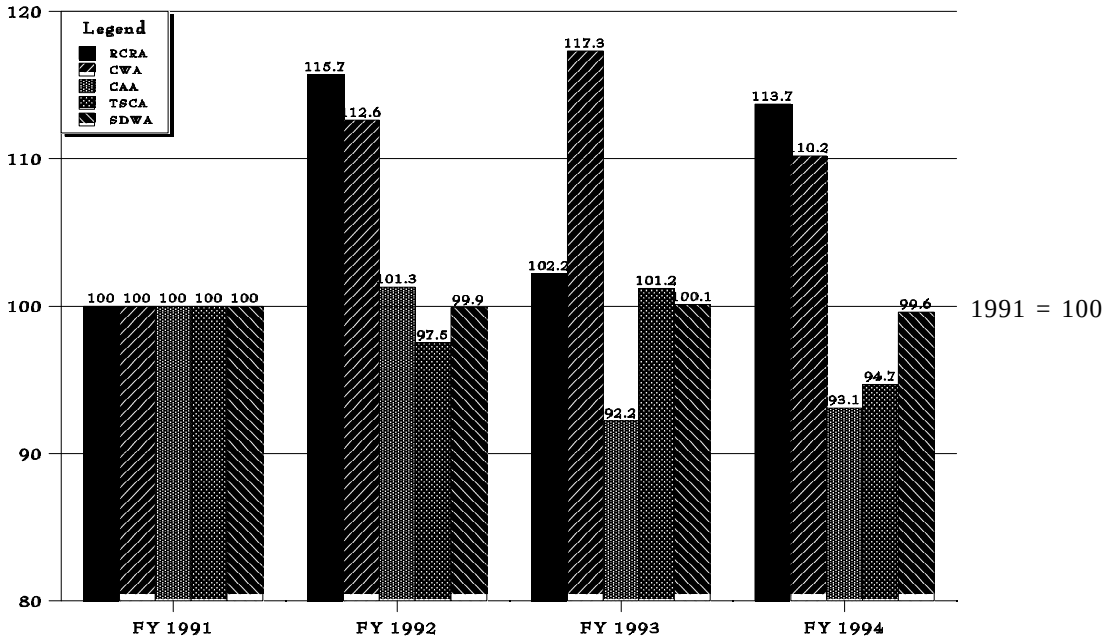
Statute	Compliance Indicator
RCRA	Percent of inspected Federal treatment, storage, and disposal facilities (TSDFs) not cited for Class I violations
CWA	Percent of major Federal facilities not in significant noncompliance (SNC)
SDWA	Percent of Federal systems not in SNC
CAA	Percent of major Federal sources in compliance
TSCA	Percent of inspected Federal facilities not in SNC

Standardized compliance indicators are derived by dividing the annual value for each indicator listed above by the FY 1991 value. These standardized indicators measure changes in compliance for the various programs relative to FY 1991 in the same way the consumer price index measures changes in the rate of inflation relative to a given base year. The purpose of standardization is to avoid potentially misleading comparisons of the absolute level of compliance, and instead focus on measuring changes in compliance over time.

Exhibit ES - 3

Changes in Federal Facility Compliance Indicators

FY 1991 (Base Year) = 100 points



As shown in Exhibit ES - 3, the level of Federal facility compliance with most major environmental statutes/programs has been somewhat mixed since FY 1991. Under CAA and TSCA, the level of compliance at Federal facilities decreased by more than five points from FY 1991 to FY 1994. SDWA compliance declined by 0.4 points relative to FY 1991. In contrast, CWA compliance at Federal facilities increased by 10 points over the same period, and the level of inspected Federal TSDFs not cited for Class I RCRA violations increased by nearly 14 points relative to FY 1991. Exhibit ES - 4 presents actual values for the compliance indicators discussed above.

Exhibit ES - 4

Federal Facility Compliance Rates for Selected Indicators

Statute	FY 1991	FY 1992	FY 1993	FY 1994
RCRA	54.2%	62.7%	55.4%	61.6%
CWA	80.3%	90.4%	94.2%	88.5%
SDWA	99.1%	99.0%	99.2%	98.7%
CAA	94.4%	95.6%	87.0%	87.9%
TSCA	92.4%	90.1%	93.5%	87.5%

The remainder of this Executive Summary presents summary data for Federal facilities under the RCRA, CWA, CAA, EPCRA, SDWA, TSCA/FIFRA, CERCLA, and BRAC programs, while the full report contains more detailed compliance information.

Resource Conservation and Recovery Act

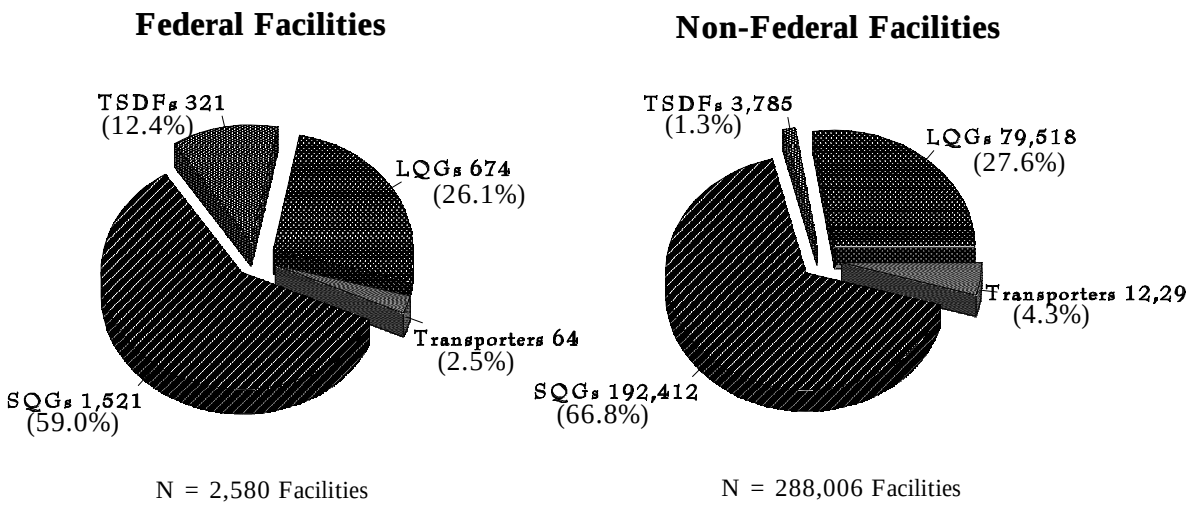
RCRA authorizes EPA to regulate the generation, treatment, storage, transportation, and disposal of hazardous waste. The Federal Facility Compliance Act of 1992, which became effective in FY 1993, had a significant impact on RCRA compliance issues at Federal facilities. The law greatly enhances EPA and State enforcement authorities against Federal facilities. For example, EPA and the States can now assess and collect penalties from Federal agencies for RCRA violations. Moreover, EPA now has authority to issue Administrative Orders against Federal facilities to enforce RCRA provisions.

The 2,580 Federal RCRA facilities represent a fairly small portion of the entire RCRA universe in FY 1994, approximately 0.9 percent. Of the 2,580 facilities, 46.9 percent are DOD, 3.8 percent are DOE, and 49.3 percent are CFA. RCRA facilities can be further subdivided into four categories: small quantity generators (SQGs), large quantity generators (LQGs), transporters, and TSDFs.

As can be seen in Exhibit ES - 5, the distribution of Federal facilities by handler type differs from non-Federal facilities in that: 1) the share of the universe comprised by TSDFs is nearly 10 times greater among Federal facilities, and 2) transporters are almost twice as common within the non-Federal sector.

Exhibit ES - 5

RCRA Facility by Handler Type (FY 1994)

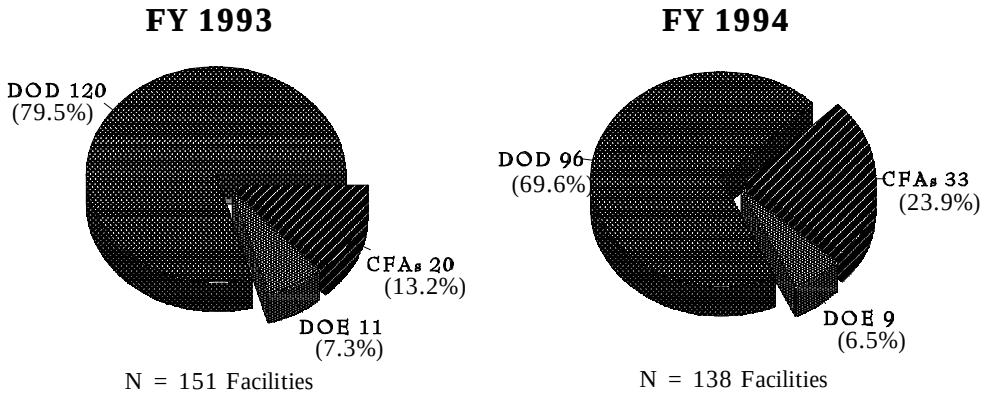


To assess compliance with RCRA requirements, Federal and State inspectors conducted 798 and 888 inspections at Federal facilities in FY 1993 and FY 1994, respectively. Of these,

151 and 138 facilities, respectively, were cited for Class I RCRA violations. Exhibit ES - 6 presents the percentage of facilities receiving Class I violations according to agency.

Exhibit ES - 6

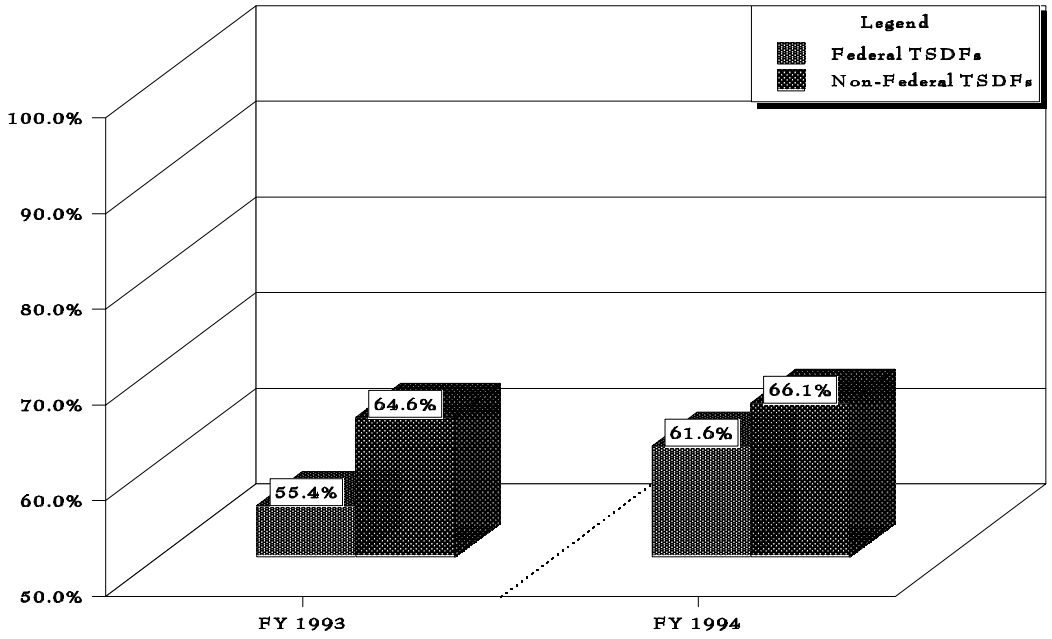
Federal Facilities with Class I Violations by Agency



Of the Federal facilities cited for Class I violations in FY 1993 and FY 1994, 141 and 118, respectively, were TSDFs, which are generally considered major Federal facilities under RCRA. Therefore, of the total number of inspected Federal TSDFs (316 in FY 1993 and 307 in FY 1994), 55.4 percent and 61.6 percent were <u>not</u> cited for Class I violations in FY 1993 and FY 1994. The corresponding Class I violation "compliance rates" for the non-Federal universe of inspected TSDFs were slightly higher (64.6 percent and 66.1 percent). Exhibit ES - 7 graphically presents this comparison.

Exhibit ES - 7

RCRA Class I Violation "Compliance Rates" at Federal vs Non-Federal TSDFs



There were a total of 347 enforcement actions taken against Federal facilities in FY 1993, with slightly more, 362, being taken in FY 1994. Exhibit ES - 8 presents a breakdown of informal versus formal enforcement actions, as well as proposed versus final penalties assessed.

Exhibit ES - 8

RCRA Enforcement Actions at Federal Facilities

Type of Action	FY 1993 Total	FY 1994 Total
Informal	269 (77.5%)	267 (73.8%)
Formal	78 (22.5%)	95 (26.2%)
All Enforcement Actions	**347**	**362**
Proposed Penalties	$ 8,796,970	$ 4,807,062
Final Penalties Collected (3/20/95)	$ 2,389,178	$ 1,382,957

Clean Water Act

The CWA and its 1987 amendments are the primary statute governing the restoration and maintenance of the chemical, physical, and biological integrity of the nation's waters. Dischargers of point source wastewater must submit an application for a National Pollutant Discharge Elimination System (NPDES) permit.

At the end of FY 1994, Federal facilities comprised approximately 2.0 percent (139) of the total universe of 7,180 major facilities regulated under the NPDES program. Of these 139 facilities, 70.5 percent were DOD, 10.8 percent were DOE, and 18.7 percent were CFA facilities.

The total number of NPDES inspections (both EPA- and State-led) at Federal facilities decreased by 7.2 percent, from 208 in FY 1993 to 193 in FY 1994. Exhibit ES - 9 presents Federal facilities in SNC with NPDES according to agency. The number of CFA facilities in SNC remained constant, but their relative share decreased. Both the number and percent of DOE facilities in SNC increased over the same period. For FY 1993 and FY 1994, therefore, the percentage of major Federal facilities not in SNC was 94.2 percent and 88.5 percent, respectively.

Exhibit ES - 9

Major Federal Facilities in SNC by Agency

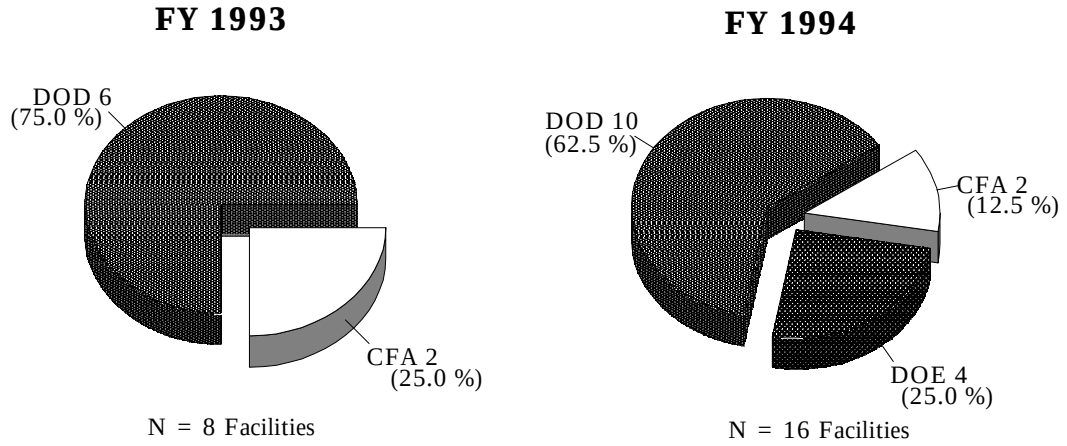
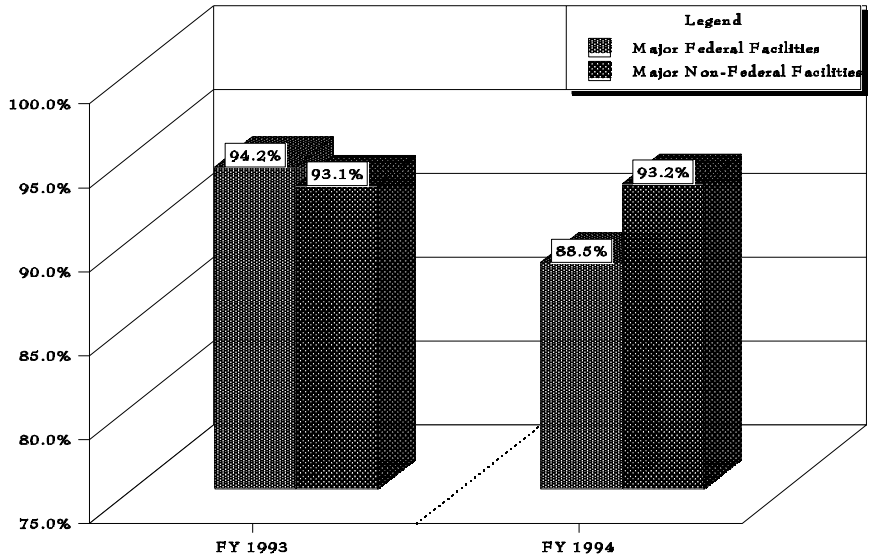


Exhibit ES - 10 compares the percentage of Federal facilities not in SNC against corresponding compliance rates for the universe of major non-Federal NPDES facilities. In FY 1993, the percentage of major Federal facilities not in SNC was higher than for non-Federal facilities. However, during FY 1994, the compliance rate for Federal facilities lagged behind that of non-Federal facilities.

Exhibit ES - 10

Comparison of NPDES Compliance Rates (% not in SNC)



As shown in Exhibit ES - 11, EPA and States took 73 and 119 enforcement actions in FY 1993 and FY 1994, respectively, to address NPDES noncompliance at Federal facilities.

Exhibit ES - 11
NPDES Enforcement Actions at Federal Facilities

Type of Enforcement Action	Number of Actions in FY 1993	Number of Actions in FY 1994
Informal	41 (56.2%)	66 (55.5%)
Formal	22 (30.1%)	26 (21.8%)
Other	10 (13.7%)	27 (22.7%)
TOTAL	**73**	**119**

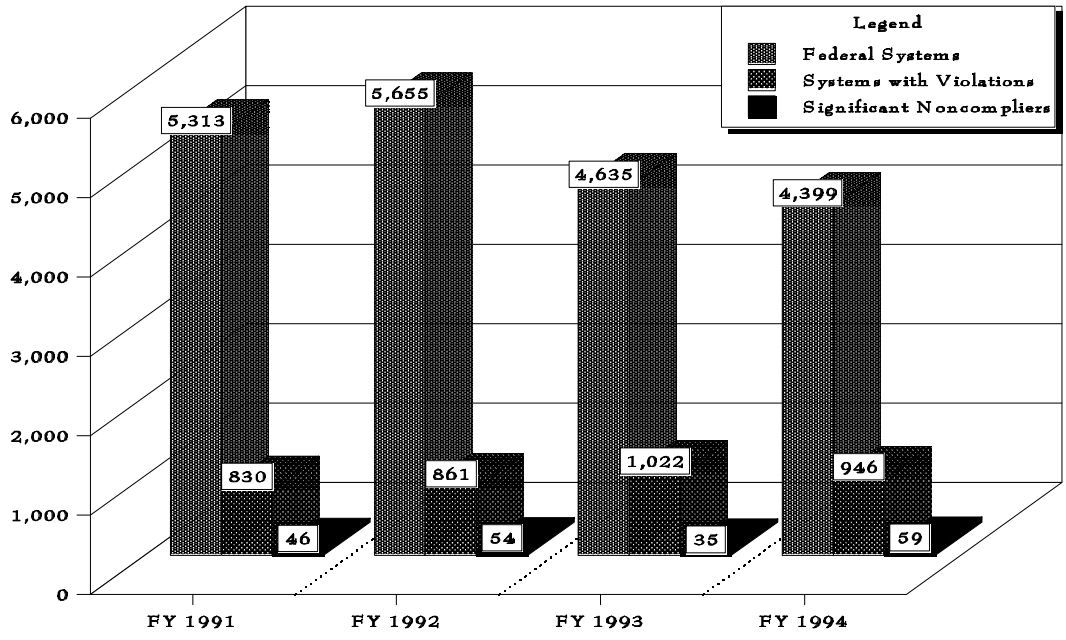
Safe Drinking Water Act

The SDWA is the basis for protecting public drinking water systems from harmful contaminants. To implement the law, EPA established the Public Water System Supervision (PWSS) Program, which regulates all public water supply systems, as well as the Underground Injection Control (UIC) Program, which specifically protects underground sources of drinking water through the establishment of State wellhead and sole source aquifer protection programs.

In FY 1994, Federal systems comprised approximately 2.3 percent (4,236) of the total universe of 189,828 systems regulated under the PWSS. Exhibit ES - 12 shows that compliance at Federal systems under the PWSS declined slightly since FY 1991. The number of Federal systems cited for violations increased from 830 in FY 1991 to 946 in FY 1994. Moreover, because the number of Federal systems actually declined, the percentage of systems with violations increased from 15.6 percent to 21.5 percent over the same period. Systems not in SNC decreased slightly from 99.1 percent in FY 1991 to 98.7 percent in FY 1994.

Exhibit ES - 12

PWSS Compliance at Federal Systems



Very few Federal systems received formal enforcement actions for violations under the PWSS, either from EPA or the States. The total number of Federal systems receiving enforcement actions decreased from nine in FY 1993 to just three in FY 1994. No Federal systems received Civil Referrals or had Criminal Cases filed against them during either year.

Clean Air Act

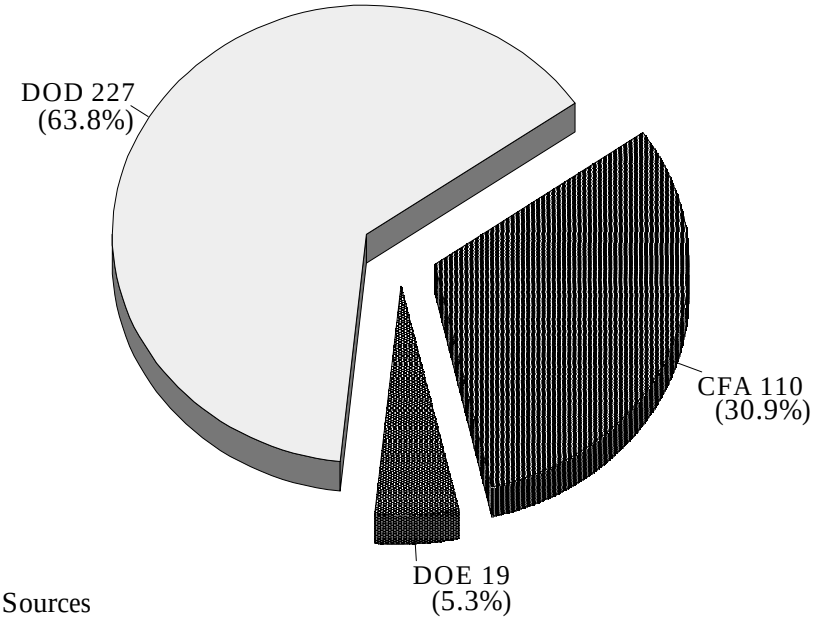
The CAA, as amended in 1990, is the primary Federal statute regulating air emissions. To fulfill its mandate of air pollution protection, the CAA establishes four types of health, welfare, and technology-based standards and programs to prevent and control air pollution:

- National Ambient Air Quality Standards (NAAQS)
- National Emissions Standards for Hazardous Air Pollutants (NESHAP)
- New Source Performance Standards (NSPS)
- Prevention of Significant Deterioration of Air Quality (PSD)

In FY 1994, 356 major Federal sources existed within the universe of 39,755 major sources regulated under all programs within the CAA. As shown in Exhibit ES - 13, 63.8 percent were DOD, 5.3 percent were DOE, and 30.9 percent were CFAs.

Exhibit ES - 13

CAA Major Federal Sources by Agency (FY 1994)



N = 356 Major Sources

EPA and State inspectors conducted a total of 255 CAA inspections of major Federal sources during FY 1994, a decrease of slightly more than eight percent relative to FY 1993. Some of these sources were inspected more than once during the year -- the actual number of

major Federal sources inspected was 220 in FY 1993 and 200 in FY 1994. Under the CAA, Federal facilities may be subject to compliance requirements under multiple programs (e.g., NAAQS and NSPS). A major source found to be in compliance with the provisions of one program, yet out of compliance with those of another, is considered to be out of compliance.

The overall compliance rates for major Federal sources during FY 1993 and FY 1994 were 87.0 percent and 87.9 percent, respectively. As shown in Exhibit ES - 14, Federal facilities experienced slightly lower CAA compliance rates than their non-Federal counterparts.

Exhibit ES - 14

CAA Compliance Rates for Major Federal vs Major Non-Federal Sources

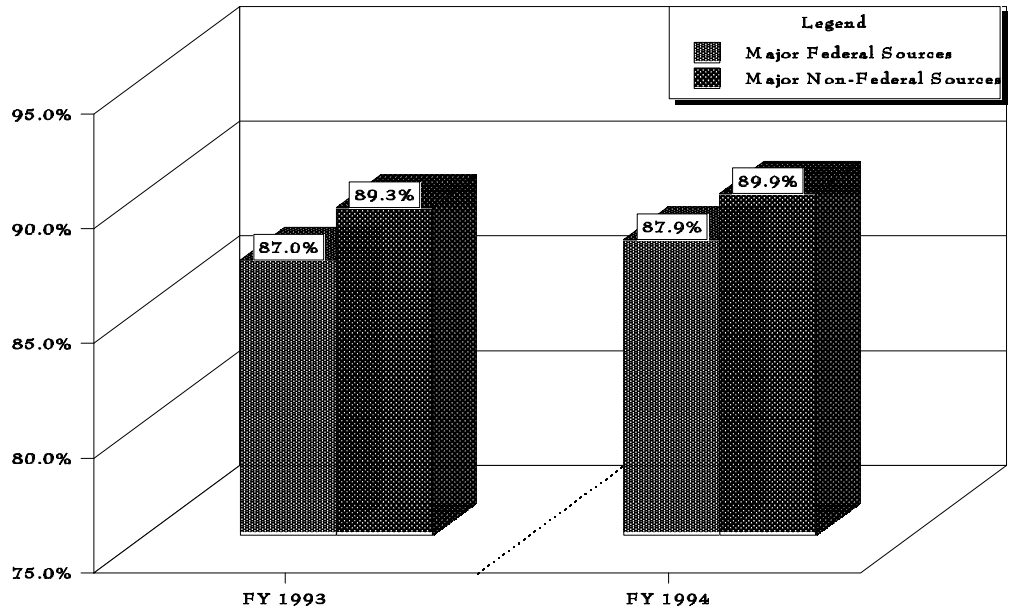


Exhibit ES - 15 breaks down individual CAA compliance data across agencies for FY 1993 and FY 1994. DOD compliance rates were higher than both DOE and CFA compliance rates for both years, particularly in FY 1994. Note that sources identified as "unknown" indicate that EPA or the State was unable to determine the compliance status of the source due to a lack of data, malfunctioning monitoring equipment, or other reason.

Exhibit ES - 15

CAA Compliance Rates Across Agencies

Agency	In Compliance	Out of Compliance	Unknown	Total
FY 1993				
DOD	192 (88.5)	22 (10.1%)	3 (1.4%)	217
CFAs	80 (84.2%)	12 (12.6%)	3 (3.1%)	95
DOE	17 (85.0%)	1 (5.0%)	2 (10%)	20
FY 1994				
DOD	210 (93.3%)	15 (6.7%)	0 (0.0%)	225
CFAs	81 (77.9%)	14 (13.5%)	9 (8.7%)	104
DOE	14 (77.8%)	3 (16.7%)	1 (5.6%)	18

During FY 1993 and FY 1994, EPA and States issued Notices of Violation (NOVs) to 14 and 18 Federal facilities, respectively, for failure to comply with provisions of the CAA. The majority of NOVs were issued against DOD facilities. Although relative compliance rates were highest among DOD facilities (see Exhibit ES - 15), because they comprise a much larger portion of the universe of Federal facilities, DOD facilities still tend to receive the majority of the enforcement actions.

Asbestos Abatement at Federal Facilities

Due to the significant potential health hazards posed by asbestos abatement activities (i.e., removal, encapsulation), as well as the ubiquitous nature of asbestos in buildings constructed during the first half of this century, the asbestos NESHAP program has particular relevance for Federal facility compliance.

During the period from the first quarter of FY 1993 to the fourth quarter of FY 1994, 275 Federal facilities provided 1,508 notifications of planned asbestos abatement activities. Collectively, DOD facilities outnumber all other reporting facilities by more than a two-to-one margin, with Air Force installations comprising the largest share among DOD facilities.

Based on these notifications, EPA and the States conducted 430 inspections, with the vast majority (95.8 percent) being led by State authorities. Exhibit ES - 16 shows the number of inspections, violations, and enforcement actions for both years.

Exhibit ES - 16
Asbestos NESHAP Program Statistics

Year	Inspections	Violations		Enforcement Actions		
		Substantive	Notification	Warning	NOV	Order
FY 1993	225	1	8	4	5	--
FY 1994	205	6	6	5	5	2

Toxic Substances Control Act & Federal Insecticide, Fungicide, and Rodenticide Act

The purpose of TSCA is to protect human health and the environment by requiring that specific chemicals be tested and that their processing and use be controlled or restricted as appropriate. FIFRA provides EPA with the authority to oversee the registration and use of pesticides and other similar products intended to kill or control insects, rodents, weeds, and other living organisms.

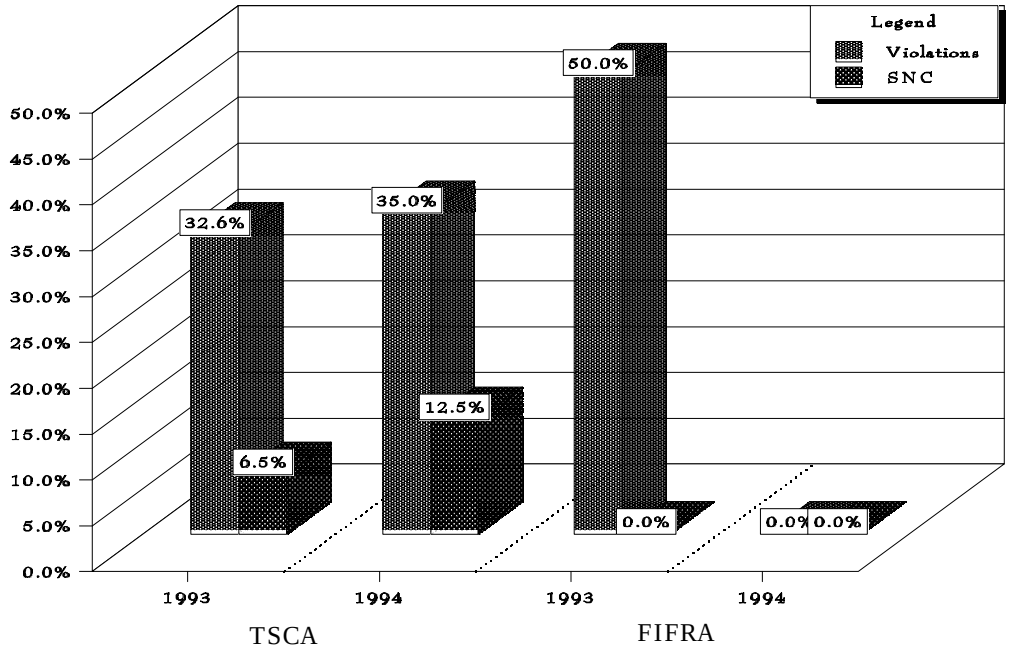
TSCA and FIFRA are not permit-based compliance programs (e.g., RCRA), nor do they involve any formal listing process whereby facilities meeting certain criteria are identified and tracked until they no longer meet these criteria (e.g., CERCLA). Moreover, the number and identity of facilities subject to TSCA change substantially from year to year, and many of the activities that subject an entity to FIFRA do not occur at a fixed location (e.g., a single firm spraying pesticides, herbicides, etc. on agricultural land located throughout a wide geographical area). As a result, there are no readily definable TSCA or FIFRA universes. Facilities subject to these programs are identified and targeted for inspections through a variety of less formal means, including: self-reporting by entities of their intent to manufacture toxic substances or pesticides, third-party requests/complaints, and EPA/State evaluation of publicly available data (e.g., annual reports).

There were relatively few TSCA and FIFRA inspections at Federal facilities during FY 1993 and FY 1994. Under TSCA, the percentage of inspected facilities found to be in SNC increased from 6.5 percent (3 of 46) in FY 1993 to 12.5 percent (5 of 40) in FY 1994. Under FIFRA, four inspections were conducted during FY 1993 and eight inspections were conducted during FY 1994. Pursuant to these inspections, EPA cited only two Federal facilities for

FIFRA violations in FY 1993. There were no Federal facility violations of FIFRA in FY 1994, similarly, no inspected Federal facilities were determined to be in SNC with FIFRA during either year. Exhibit ES - 17 presents the percentage of inspected facilities cited for violations and in SNC under TSCA and FIFRA during FY 1993 and FY 1994.

Exhibit ES - 17

TSCA and FIFRA Compliance at Federal Facilities



By definition, all Federal facilities found in SNC with TSCA were subject to formal enforcement actions. The type of action taken is referred to as a Notice of Noncompliance (NON). In FY 1993, EPA issued a field citation for FIFRA violations. In addition, during a multi-media inspection, a second Federal facility received a NOV addressing violations under four separate statutes (CAA, CWA, TSCA, and FIFRA). Under both TSCA and FIFRA, Federal facilities, unlike commercial facilities, are not subject to penalties.

Emergency Planning and Community Right-to-Know Act -- TRI Reporting

The TRI, established under EPCRA, is a publicly available data base containing specific chemical release and transfer information from manufacturing facilities throughout the United States. In addition, following the passage of the Pollution Prevention Act in 1990, the TRI was expanded to include reporting of additional waste management and pollution prevention activities.

In August of 1993, President Clinton signed Executive Order 12856, which required Federal facilities to begin submitting TRI reports for calendar year 1994 activities. Federal facilities meeting the TRI chemical thresholds are required to file TRI reports, whether or not they are engaged in manufacturing. This Report does not contain TRI data for all Federal facilities because 1994 data are not released until early 1996. Government-owned contractor-operated (GOCO) Federal facilities, however, are required to submit TRI reports, irrespective of the Executive Order.

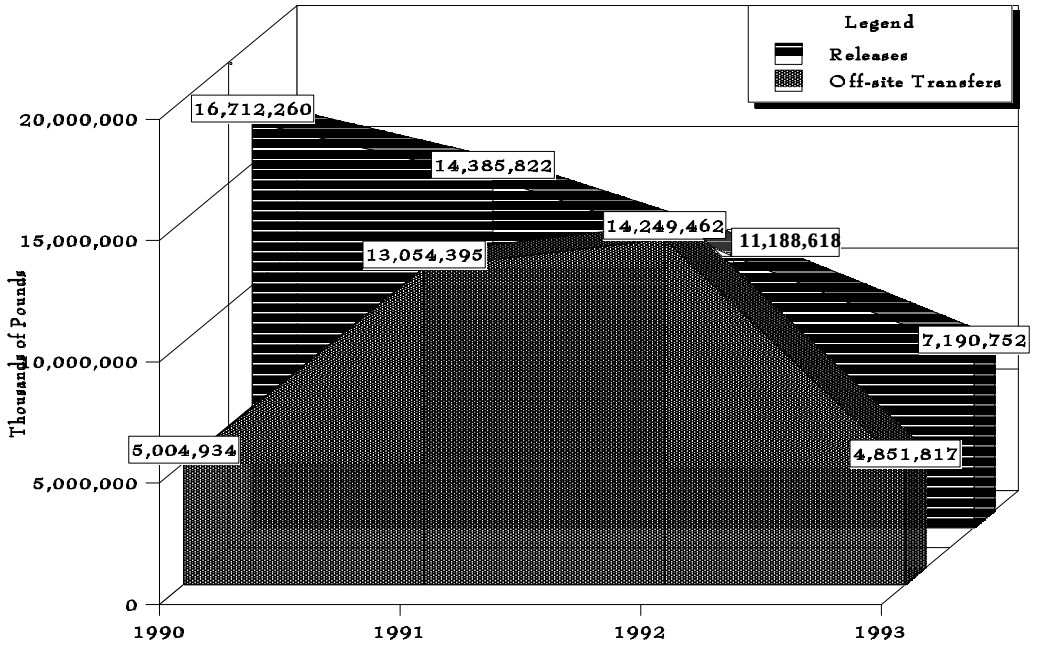
GOCOs reported releases of approximately 7.2 million pounds of TRI chemicals in 1993, nearly all of which (99.4 percent) consisted of releases to the air. Of the releases to environmental media other than air, most (76.3 percent) were accounted for by releases to water, followed by releases to land (23.7 percent). GOCO facilities released only five pounds of TRI chemicals via underground injection during 1993. During 1993, GOCO facilities transferred more than 4.8 million pounds of TRI chemicals to publicly-owned treatment works and other off-site locations for the purposes of recycling, energy recovery, treatment, or disposal. However, most TRI chemicals present at GOCO facilities are not released or transferred off-site; the majority (in terms of total volume) are managed on-site. The quantity of TRI chemicals managed in waste that GOCO facilities reported as released in 1993 totaled just under 7.9 million pounds

As shown in Exhibit ES - 18, total releases of chemicals listed on the TRI decreased by approximately 9.5 million pounds or 56.9 percent from 1990 to 1993. During the same period, the number of GOCO facilities reporting under the TRI decreased from 66 to 51, a 21.7 percent decline. However, the decline in releases cannot be attributed solely to a decrease in the number of reporting facilities. Comparing totals for only those GOCO facilities that reported releases in both 1990 and 1993, the total quantity of releases still declined by 51.9 percent.

Total off-site transfers of TRI chemicals decreased slightly from approximately 5.0 million pounds in 1990 to less than 4.9 million pounds in 1993, a 3.1 percent decline. It is important to note, however, that off-site transfers for recycling or energy recovery were not required to be reported before 1991. Consequently, the 1990 off-site transfer figure most likely understates the actual level of transfers occurring at GOCO facilities. Relative to 1991, the total quantity of TRI chemicals transferred off-site declined from more than 13 million pounds to less than five million in just two years. This represents a decrease of 62.8 percent.

Exhibit ES - 18

TRI Releases and Off-site Transfers at GOCO Facilities (1990 -1993)



Comprehensive Environmental Response, Compensation, and Liability Act

CERCLA authorizes the Federal government to respond to situations involving past disposal of hazardous substances. Under CERCLA, parties causing or contributing to contamination are held responsible for cleaning up contaminated sites.

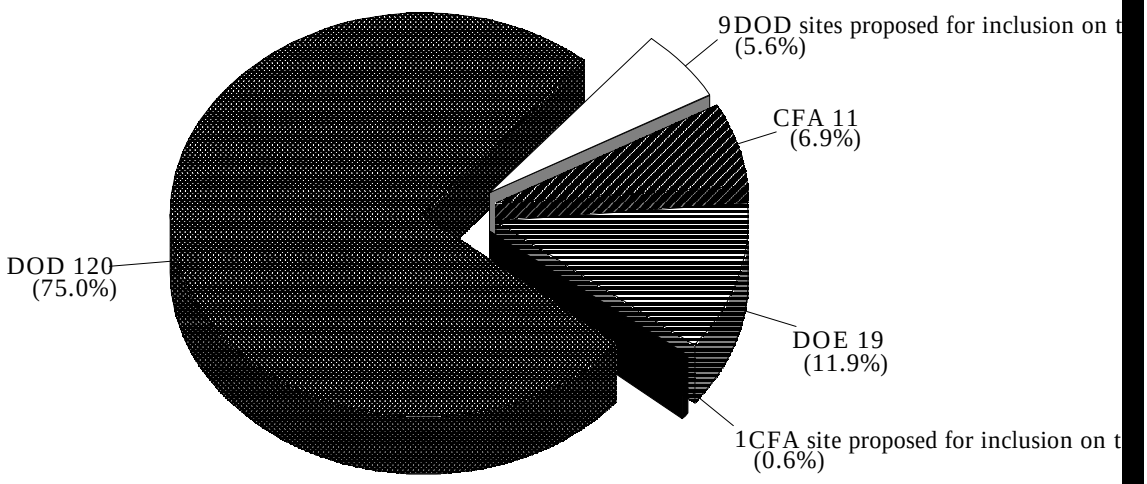
Section 120(c) of CERCLA requires EPA to establish a list of Federal facilities that report hazardous waste activity under RCRA or §103 of CERCLA. The list, known as the Federal Agency Hazardous Waste Compliance Docket, is a key component in identifying potentially contaminated sites at Federal facilities. From its inception in February of 1988 to the most recent update in March of 1995, the number of sites at Federal facilities listed on the docket has nearly doubled, from 1094 to 2070.

The CERCLA Information System (CERCLIS) is the data base that serves as the official inventory of CERCLA sites and the primary system used to track CERCLA progress at all Federal facilities. Among other matters, CERCLIS tracks site assessment, remedial, enforcement, and financial information. At the end of FY 1994, there were 36, 881 non-Federal facilities listed in CERCLIS and 1,738 Federal facilities (4.5 percent of the CERCLIS universe). Of these, approximately 10 percent are on the NPL. Exhibit ES - 19 presents the

status of sites on the NPL located at Federal facilities as of FY 1994. Appendix I contains a complete inventory of Federal facilities on the NPL as of FY 1994.

Exhibit ES - 19

Federal Facilities on the NPL (FY 1994)



N = 160 Facilities

At the start of EPA's Federal facilities enforcement program, EPA directed its resources largely to the completion of negotiations for CERCLA §120 interagency agreements (IAGs). These agreements made up the cornerstone of the enforcement program addressing the 150 final and 10 proposed Federal facilities listed on the NPL at the end of FY 1994. Each agreement contained specific schedules for the study and cleanup of hazardous substances at these facilities.

During FY 1994, 11 additional Federal facility CERCLA IAGs were executed. Of the sites at Federal facilities listed on the NPL at the end of FY 1994, 129 are now covered by 120 IAGs.

In February 1993 EPA issued an interim report by the Federal Facilities Environmental Restoration Dialogue Committee. EPA established the committee in 1992 to develop consensus policy recommendations aimed at improving the Federal facilities environmental restoration decision process to ensure that clean-up decisions reflect the priorities and concerns of all stakeholders. The interim report contained committee recommendations concerning: improving the dissemination of Federal facility restoration information; improving stakeholder involvement in key restoration decisions with special emphasis on the use of site-specific advisory boards; and improving consultation on Federal facility restoration funding decisions and setting priorities in the event of funding shortfalls.

Base Realignment and Closure

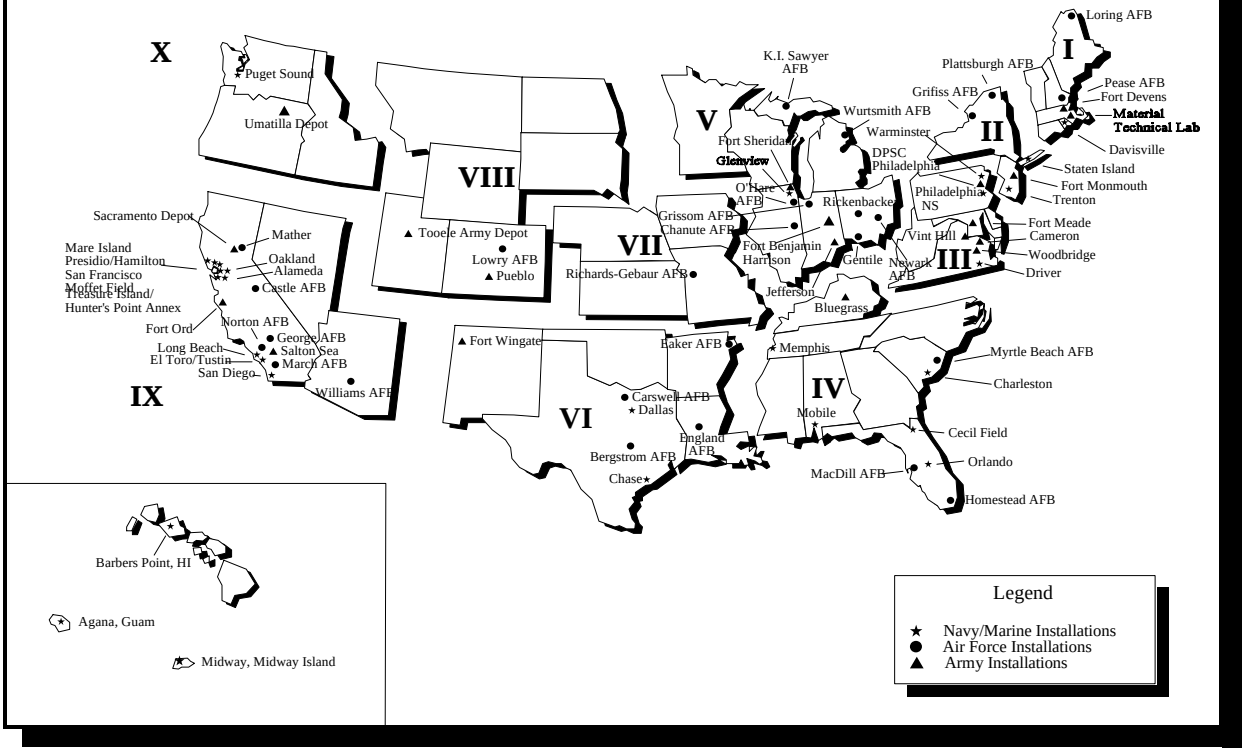
The Base Realignment and Closure Acts of 1988 and 1990 provide for the realignment or complete closure of military installations based on revised force structure needs. The Acts stipulate that bases be chosen for closure or realignment in 1988 (BRAC I), 1991 (BRAC II), 1993 (BRAC III), and 1995 (BRAC IV -- not discussed in this report).

EPA, DOD, and the States are charged with creating a working partnership to implement the President's Fast Track Cleanup Program at bases with environmental contamination and where property will be available for transfer to the community. The objectives of the Fast Track Cleanup Program are quick identification of clean parcels for early reuse, selection of appropriate leasing parcels where cleanup is underway, and hastening cleanup. The number of Fast Track Cleanup locations is a subset of the total number of bases selected for closure or realignment.

DOD, EPA and State regulators have forged BRAC Cleanup Teams (BCTs) to deal with the complex environmental problems at Fast Track Cleanup locations. The BCTs are empowered to make decisions locally to the maximum extent possible and have the ability to raise issues immediately to senior level officials for resolution should the need arise. Exhibit ES - 20 presents the location of BCTs throughout the country.

Exhibit ES - 20

BRAC Cleanup Teams by State



Conclusions and Next Steps

EPA and States performed 1,298 and 1,380 inspections at Federal facilities in FY 1993 and FY 1994, respectively, which resulted in 462 and 517 enforcement actions. Continued assessment of compliance problems confronting Federal facilities will provide EPA and States with the ability to strengthen their oversight programs. Future compliance assessments need to analyze the root causes of noncompliance to achieve environmental compliance goals within the Federal sector.

EPA will continue to work with States, Indian Tribes, other Federal agencies, and the public to achieve Federal environmental leadership. Specifically, EPA will focus on the following key objectives:

- Determining the causes of noncompliance with environmental laws.
- Integrating multi-media inspection and enforcement strategies into standard environmental program requirements for Federal facilities.
- Working with Federal agencies to incorporate pollution prevention into their environmental management planning efforts.
- Involving the public in each stage of the Federal government's environmental decision-making process.
- Applying the full range of enforcement authorities available under environmental laws.
- Ensuring compliance with negotiated enforcement agreements at Federal facilities.
- Implementing a process for accelerating the cleanup of military installations slated for closure.
- Reducing the cost and increasing the effectiveness of environmental technologies.
- Training Federal agency staff in the objectives and approaches for environmental cleanup and compliance.

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ACRONYMS

Acronym	Definition
AIRS	Aerometric Information Retrieval System
BIT	BRA Cleanup Teams
BRA	Base Realignment and Closure
CAA	Clean Air Act
CEI	Compliance Evaluation Inspection
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERCLIS	CERCLA Information System
CERFA	Community Environmental Response Facilitation Act
CFA	Civilian Federal Agency
CME	Compliance Monitoring Evaluation
CWA	Clean Water Act
DOD	Department of Defense
DOE	Department of Energy
EPCRA	Emergency Planning and Community Right-to-Know Act
ERP	Enforcement Response Policy
ESI	Expanded Site Investigation
FFCs	Federal Facilities Coordinators
FFCA	Federal Facility Compliance Act (Agreement)
FFEO	Federal Facilities Enforcement Office
FFIS	Federal Facilities Information System
FFRRO	Federal Facilities Reuse and Restoration Office
FFTS	Federal Facilities Tracking System
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
FRDS	Federal Reporting Data System
GOCO	Government-Owned Contractor-Operated
HRS	Hazard Ranking System
IAG	Interagency Agreement
IDEA	Integrated Data for Enforcement Analysis
LQG	Large Quantity Generator
NAAQS	National Ambient Air Quality Standards
NCDB	National Compliance Data Base
NESHAP	National Emissions Standard for Hazardous Air Pollutants
NFRAP	No Further Remedial Action Planned
NOV	Notice of Violation
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
NSPS	New Source Performance Standard
OECA	Office of Enforcement and Compliance Assurance

Acronym	Definition
PA	Preliminary Assessment
PCS	Permit Compliance System
POTW	Publicly Owned Treatment Works
PSD	Prevention of Significant Deterioration
PWSS	Public Water System Supervision
RA	Remedial Action
RCRA	Resource Conservation and Recovery Act
RCRIS	RCRA Information System
RD	Remedial Design
RI/FS	Remedial Investigation/Feasibility Study
ROD	Record of Decision
SARA	Superfund Amendments and Reauthorization Act
SDWA	Safe Drinking Water Act
SI	Site Investigation
SNC	Significant Noncompliance (Noncomplier)
SQG	Small Quantity Generator
TRI	Toxics Release Inventory
TRIS	Toxic Chemical Release Inventory System
TSCA	Toxic Substances Control Act
TSDF	Treatment, Storage, and Disposal Facility
UIC	Underground Injection Control

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I. INTRODUCTION

To obtain a clear picture of the compliance issues and problems confronting Federal facilities, as well as a better understanding of its own strengths and potential areas for improvement, EPA's Federal Facilities Enforcement Office (FFEO), within the Office of Enforcement and Compliance Assurance (OECA), periodically assesses Federal facility performance with respect to environmental statutes and programs. The last assessment, *The State of Federal Facilities: A Comprehensive Overview of the Environmental Compliance Status of Federal Facilities through the End of FY 1992*, was published in February 1994. This current State of Federal Facilities Report examines Federal facility environmental performance primarily during FY 1993 and FY 1994; however, where appropriate and when data are comparable, this Report also examines pre-FY 1993 data.

The Federal Facility Compliance Act (FFCA) of 1992, which became effective in FY 1993, had a significant impact on RCRA compliance issues at Federal facilities. The law greatly enhances EPA and State enforcement authorities against Federal facilities. For example, EPA and the States can now assess and collect penalties from Federal agencies for RCRA violations. Moreover, EPA now has authority to issue Administrative Orders against Federal facilities to enforce RCRA provisions.

Federal facilities are generally subject to the same environmental statutes and regulations as commercial entities. EPA, in conjunction with the States, has oversight responsibility for Federal facility environmental programs. To fulfill its oversight responsibility, FFEO conducts a broad range of activities, including the following:

- Policy and guidance development,
- Regional program support,
- Federal agency compliance planning reviews,
- Interagency agreement (IAG) support,
- Program and information support, and
- Technical assistance and capacity building.

Through its network of Regional Federal Facilities Coordinators (FFCs) and State contacts, FFEO works with appropriate facility personnel to ensure that they take the necessary actions to prevent, control, and abate environmental pollution.

Environmental Requirements

Environmental requirements potentially affecting Federal facilities range from Federal statutes and their implementing regulations to State and local laws and ordinances. To provide a well-defined and consistent baseline measure of performance that will ultimately facilitate long-term trend analyses, this Report summarizes Federal facility performance during FY 1993 and FY 1994 with respect to the following major environmental statutes and programs:

- ***Resource Conservation and Recovery Act (RCRA)*** -- RCRA and its associated amendments regulate the generation, transport, storage, treatment, and final disposal of hazardous and solid waste.

- ***Clean Water Act (CWA)*** -- Under the CWA, EPA or approved States issue National Pollutant Discharge Elimination System (NPDES) permits that establish effluent limits for all municipal and industrial wastewater discharges.

- ***Safe Drinking Water Act (SDWA)*** -- The Public Water Supply Supervision (PWSS) program authorized by SDWA enables EPA to set standards to control both manmade and naturally occurring contaminants. In most cases, States have primary responsibility for oversight and enforcement under SDWA.

- ***Clean Air Act (CAA)*** -- The CAA authorizes EPA to establish emission control standards to achieve the air quality goals set forth in the National Ambient Air Quality Standards.

- ***Toxic Substances Control Act (TSCA)*** -- Under TSCA, EPA identifies and controls the manufacture, process, distribution, use, and disposal of existing and new chemical substances and mixtures.

- ***Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)*** -- Under FIFRA, EPA has the authority over the sale, distribution, and use of pesticide products.

- ***Toxics Release Inventory (TRI)*** -- Under the Emergency Planning and Community Right-to-Know Act (EPCRA) TRI program, EPA provides information about toxic chemicals to the public through an annual report of releases of such chemicals by industrial and other facilities.[1]

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[1]As of 1995, TRI data for Federal facilities are available only for government-owned contractor-operated facilities.

- ***Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)*** -- CERCLA, as amended by the Superfund Amendments and Reauthorization Act (SARA), created the Superfund program to respond to releases of hazardous substances, pollutants, and contaminants resulting from accidents or uncontrolled or abandoned hazardous waste sites.

- ***Base Realignment and Closure (BRAC)*** -- The Defense Base Realignment and Closure Acts of 1988 and 1990 provide for the closing of selected military installations. To assist in meeting the environmental restoration needs under the BRAC program, the Community Environmental Response Facilitation Act (CERFA) was enacted in 1992 to facilitate the transfer of uncontaminated and remediated parcels.

Organization of the Report

In preparing this Report, FFEO consulted all of the relevant EPA program offices to ensure that the type and format of compliance data presented herein is consistent with that used by the respective programs. For most programs, the data are organized to address the following issues:

- How many and what types of Federal facilities are regulated/affected by the program and what portion of the entire universe of regulated facilities do they comprise?

- How is compliance monitored at regulated Federal facilities?

- How is compliance measured?

- What actions were taken to address noncompliance?

For other environmental programs, however, compliance indicators such as the number of violations or the number and type of enforcement actions are less appropriate measures of Federal facility performance. These programs focus on such issues as the quantity of toxic chemicals released into the environment, or the progress of remediation and/or decommissioning activities. The following program summaries contained in this Report are organized according to these alternative issues:

- ***TRI*** -- The TRI program summary discusses releases of chemicals to various environmental media, off-site transfers, and prevention and management of chemicals in waste at government-owned contractor-operated facilities.

- ***CERCLA*** -- The CERCLA program summary highlights the status of Federal facilities within the remediation process. It describes the number of sites potentially and actually awaiting cleanup, as well as the number of sites at which cleanup has begun or been completed.

- ***BRAC*** -- The BRAC program summary contains information on the number and location of military installations slated for closure and their cleanup status.

The remainder of this Report is divided into five sections: Section II provides an overview of the scope of Federal facility activities related to environmental compliance issues; Section III presents individual statutory and programmatic environmental compliance summaries; Section IV discusses enforcement highlights; Section V summarizes EPA technical and compliance assistance activities for Federal facilities; and Section VI contains conclusions and proposed next steps to address compliance problem areas.

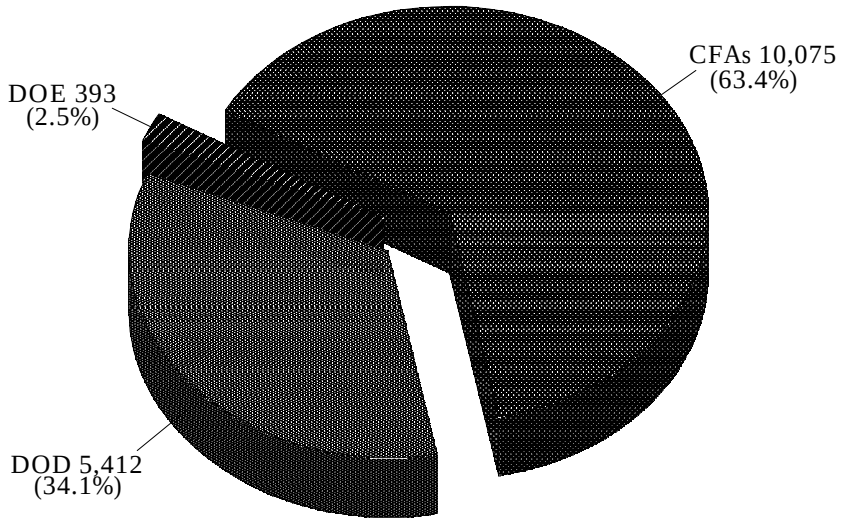
II. OVERVIEW OF FEDERAL FACILITIES

The Federal government defines Federal facilities as all buildings, installations, structures, land, public works, equipment, aircraft, vessels, and other vehicles and property owned by or constructed or manufactured and leased to the Federal government. The size of the Federal government, in terms of capital, personnel, and real estate holdings, is substantial. For example, the Federal government currently owns more than 440,000 buildings, employs more than 2.9 million people, and owns or manages over 650 million acres of public land.[2]

Although all Federal facilities are potentially subject to environmental regulations, most are not involved in activities that would trigger requirements to comply with regulations. According to the Federal Facilities Tracking System (FFTS), there are currently about 15,880 Federal facilities that engage in some type of activity directly affected by environmental requirements. These facilities can be grouped into one of three broad categories -- Department of Defense (DOD), Department of Energy (DOE), and Civilian Federal Agency (CFA) facilities. Exhibit II - 1 presents the distribution of Federal facilities according to agency category.

Exhibit II - 1

Federal Facilities by Agency Category



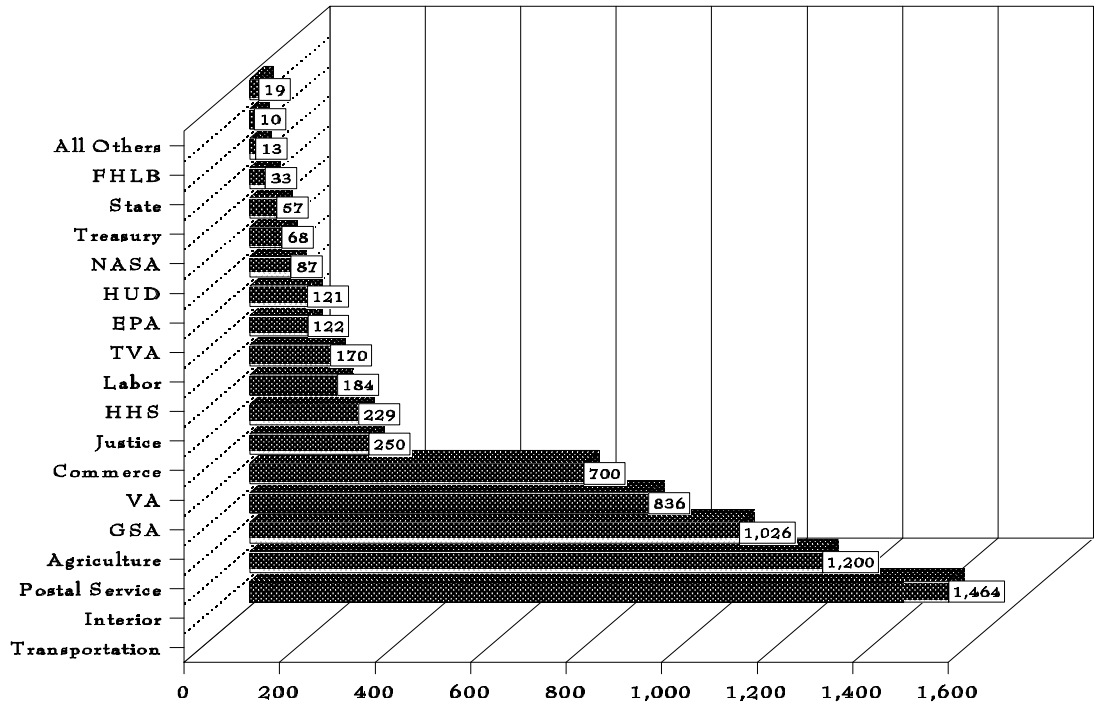
N = 15,880 Federal facilities

[2] Real estate and land ownership figures obtained from FY 1993 General Services Administration statistics. Personnel figure obtained from FY 1994 Census Bureau statistics.

DOD and DOE facilities typically include large installations (e.g., military bases, storage depots), manufacturing/fabrication plants, and laboratories/research facilities. The universe of CFA facilities is somewhat more diverse and includes organizations such as the Department of the Interior, General Services Administration, Department of Justice, Tennessee Valley Authority, NASA, Environmental Protection Agency, and many others. Exhibit II - 2 shows the distribution of CFA facilities according to individual agency.

Exhibit II - 2

Distribution of CFAs by Agency



Missions of the Federal Agencies

DOD is charged with defending the interests of the United States anywhere in the world. As such, DOD maintains thousands of installations to provide the necessary infrastructure for the armed services to meet this mission. Installations range in size from a few acres to thousands of square miles; their missions range from logistics and training to manufacturing and rebuilding aircraft and ships. Many of these installations are the equivalent of small cities, and thus they possess all of the infrastructure (e.g., hospitals, sewage treatment plants, roads, airports) associated with city environments. Much of the support activity associated with DOD's mission is industrial, therefore, DOD installations face compliance issues relating to air and water pollution and solid/hazardous waste generation.

DOE is involved in electric power generation and transmission, fossil and non-fossil fuel research, petroleum storage, nuclear weapons research, and nuclear weapons production. Many of DOE's approximately 400 installations are dedicated to laboratory research. DOE laboratories work on a variety of areas including solar energy, battery development, energy transmission methods, atomic energy, fossil fuels, and nuclear weapons. Some laboratories are located on large compounds such as Savannah River, Los Alamos, and Oak Ridge, while others are part of university systems such as the Fermi Lab in Chicago. Like DOD, the large-scale manufacturing and industrial nature of many DOE activities presents DOE with a broad range of environmental compliance issues.

CFA facilities range in size and scope from single-purpose buildings to extensive multi-purpose compounds. Activities include vehicle fleet management, construction, facility operation, scientific and medical research, materials storage and shipment, and many others. On an individual facility basis, many CFA facilities have fewer environmental concerns; however, the diversity of CFA activities implies that as a group, they face environmental compliance issues as extensive as those faced by DOD and DOE facilities. Exhibit II - 3 demonstrates the range of activities typically conducted at Federal facilities.

Exhibit II - 3
Activities at Federal Facilities

Activity	DOD	DOE	CFAs
Vehicle/Aircraft Maintenance	X	X	X
-- Painting	X	X	X
-- Part Cleaning	X	X	X
Fuel Storage and Refueling	X	X	X
Electroplating	X	X	
Printing Photoprocessing	X	X	X
Wastewater Treatment	X	X	X
Hospitals	X		X
Laboratory Research	X	X	X
Office Operations	X	X	X

When discussing the entire community of Federal facilities, it is important to recognize that not all Federal facilities are owned and operated by the Federal government. At numerous Federal facilities and on many public lands, a private party or private parties are involved. Thus, in addition to traditional government-owned government-operated (GOGO) facilities, the

Federal facility community includes government-owned contractor-operated (GOCO) facilities, privately-owned and leased by the government (POGO) facilities, jointly-owned and contractor-operated (JOCO) facilities, as well as many other ownership/operating arrangements.

Environmental Activities and Expenditures

The number and level of annual expenditures on Federal environmental management activities has increased since FY 1991. Exhibit II - 4 presents a breakdown of these activities according to number of projects and required budgetary authority to implement these projects.

Exhibit II - 4

Federal Environmental Projects

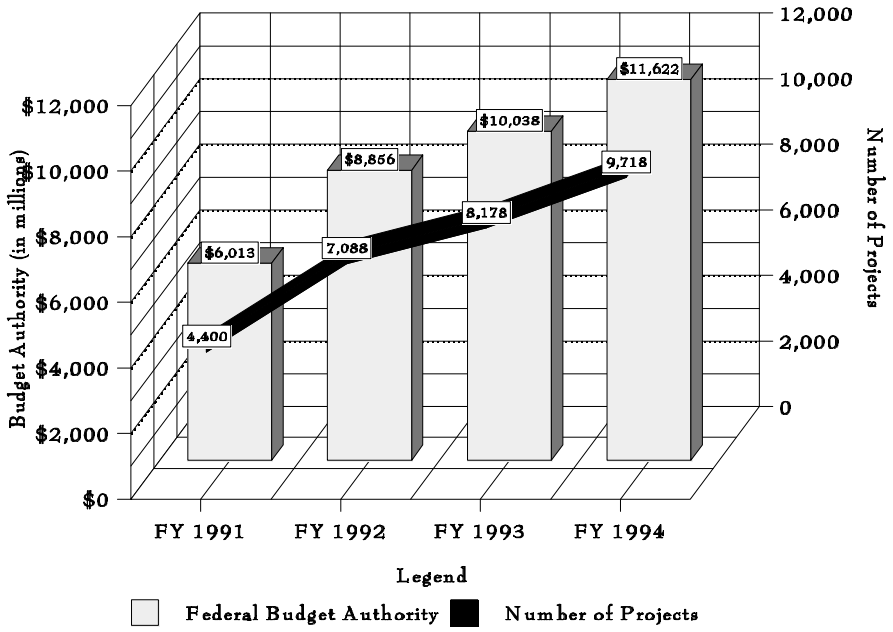


Exhibit II - 4 reveals that both the number of environmental projects and their corresponding funding levels have approximately doubled since FY 1991. Exhibit II - 5 illustrates how these proposed funding levels are allocated across the various Federal agencies.

Exhibit II - 5

Environmental Project Budget Authority by Agency

Agency	Budget Authority Actual (in millions of dollars)			
	FY 1991	FY 1992	FY 1993	FY 1994
DOD	$2,168	$4,172	$4,020	$5,246
DOE	$3,687	$4,434	$5,728	$6,175
CFAs	$158	$250	$290	$201
Total	**$6,013**	**$8,856**	**$10,038**	**$11,622**

The vast majority of spending on environmental projects is accounted for by DOE and DOD, which accounted for 53.1 percent and 45.1 percent, respectively, of the total budgeted authority in FY 1994. Although all agency categories have increased spending since FY 1991, the rate of increase has changed. For example, over the period in question, DOE and DOD spending increased by 67.5 percent and 140.1 percent, respectively, while spending by CFAs grew by only 27.2 percent.

Documentation for Exhibits in this Section

Exhibit Title	Information Source	Date of Data Pull	Comments
Federal Facilities by Agency Category	FFTS	10/1/95	--
Distribution of CFAs by Agency	FFTS	10/1/95	--
Activities at Federal Facilities	--	--	--
Federal Environmental Projects	FFIS	Various	--
Environmental Project Budget Authority by Agency	OMB	Various	--

III. ENVIRONMENTAL PROGRAM STATUS

The information contained in this Report is drawn from many sources within and across the various EPA environmental program offices. The starting point for the analysis is the **Federal Facilities Tracking System**, which is a cross-media information management system that draws upon several other EPA data bases and focusses on Federal facility compliance. Other EPA data bases used in preparing this Report include:

- ***FFIS*** -- The Federal Facilities Information System is the national data base that contains budget and project information on all Federal environmental management program planning activities pursuant to Executive Order 12088. The data are derived from the Federal environmental planning process known as FEDPLAN.

- ***RCRIS*** -- The Resource Conservation and Recovery Information System is the mainframe data base that tracks hazardous waste handlers under the Resource Conservation and Recovery Act.

- ***PCS*** -- The Permit Compliance System tracks EPA Regional and State compliance and enforcement data for the National Pollutant Discharge Elimination System under the Clean Water Act.

- ***FRDS-II*** -- The Federal Reporting Data System is a national data base that tracks public water supply systems compliance and enforcement data collected by EPA Regions and States under the Public Water Supply Supervision program of the Safe Drinking Water Act.

- ***AIRS*** -- The Aerometric Information Retrieval System manages aerometric emissions and compliance data on point sources tracked by EPA, State, and local governments in accordance with the Clean Air Act.

- ***CERCLIS*** -- The Comprehensive Environmental Response, Compensation, and Liability Information System is the primary data base used under the Superfund program.

- ***NCDB*** -- The National Compliance Data Base is the national repository for compliance and enforcement data collected by EPA under the Federal Insecticide, Fungicide, and Rodenticide Act and the Toxic Substances Control Act.

- ***TRIS*** -- The Toxic Chemical Release Inventory System tracks releases of chemicals listed in the Toxics Release Inventory (TRI) according to chemical type, quantity, and nature of the release.

- ***IDEA*** -- Integrated Data for Enforcement Analysis is a mainframe system that ties together key compliance data across programs by pulling elements from other mainframe systems including RCRIS, AIRS, and CERCLIS.

Environmental Compliance Indicators

There are numerous differences among environmental programs in terms of how EPA and States assess compliance. For example, CAA, CWA, and RCRA programs use on-site inspections, while SDWA relies on self-reporting. Similarly, under the CWA, EPA and States typically inspect the entire universe of major Federal facilities annually, whereas under the RCRA and TSCA programs, only a portion of facilities potentially subject to inspections are actually inspected. There also are differences among programs in terms of how compliance is defined and in the number of requirements that must be met. Because of these many differences, ***it is not feasible to develop a single compliance indicator that yields meaningful comparisons across programs***. However, evaluating certain compliance indicators over time can reveal how well Federal facilities are performing with respect to individual programs.

For a given program, there are potentially numerous indicators that could be used to assess compliance at Federal facilities (e.g., percentage of Federal facilities with violations, percentage of Federal facilities in significant noncompliance, percentage of Federal facilities on the exceptions list). Based on discussions with EPA Program Office staff, Exhibit III - 1 presents compliance indicators that are intended to measure the level of relatively serious noncompliance at major Federal facilities. These compliance indicators are summarized below.

Statute	Compliance Indicator
RCRA	Percent of inspected Federal TSDFs <u>not</u> cited for Class I violations.
CWA	Percent of major Federal facilities <u>not</u> in significant noncompliance
SDWA	Percent of Federal systems <u>not</u> in significant noncompliance
CAA	Percent of major Federal sources in compliance
TSCA	Percent of inspected Federal facilities <u>not</u> in significant noncompliance

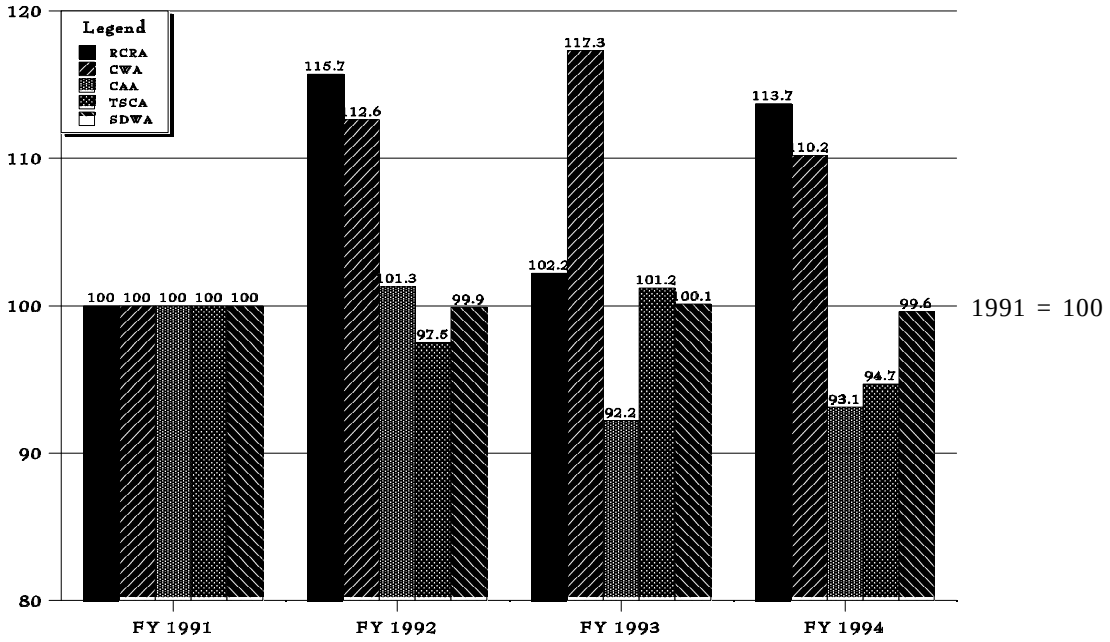
Exhibit III - 1 standardizes the compliance indicators listed above by dividing the annual value for each indicator by the FY 1991 value. These standardized indicators measure changes in compliance for the various programs relative to FY 1991 in the same way the consumer price index measures changes in the rate of inflation relative to a given base year. The purpose of

standardization is to avoid potentially misleading comparisons of the absolute level of compliance, and instead focus on measuring changes in compliance over time.

Exhibit III - 1

Changes in Federal Facility Compliance Indicators

FY 1991 = 100



According to Exhibit III - 1, the level of Federal facility compliance with most major environmental statutes/programs has been somewhat mixed since FY 1991. Under CAA and TSCA, the level of compliance at Federal facilities decreased by more than five points from FY 1991 to FY 1994. SDWA compliance declined by 0.4 points relative to FY 1991.

In contrast, CWA compliance at Federal facilities increased by 10 points over the same period, and the percentage of inspected Federal TSDFs not cited for Class I RCRA violations increased by nearly 14 points relative to FY 1991. It is important to note, however, that changes in compliance are not necessarily indicative of the absolute levels of compliance. Exhibit III - 2 presents absolute values for the compliance indicators discussed above.

Exhibit III - 2

Federal Facility Compliance Rates for Selected Indicators

Statute	FY 1991	FY 1992	FY 1993	FY 1994
RCRA	54.2%	62.7%	55.4%	61.6%
CWA	80.3%	90.4%	94.2%	88.5%
SDWA	99.1%	99.0%	99.2%	98.7%
CAA	94.4%	95.6%	87.0%	87.9%
TSCA	92.4%	90.1%	93.5%	87.5%

The remainder of this section is divided into program-by-program summaries of Federal facility activities/compliance.

Documentation for Exhibits in this Section

Exhibit Title	Information Source	Date of Data Pull	Comments
Changes in Federal Facility Compliance Indicators	Multiple data bases	Various	Data drawn from latter sections of Chapter III of this document.
Federal Facility Compliance Rates for Selected Indicators	Multiple data bases	Various	Data drawn from latter sections of Chapter III of this document.

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RESOURCE CONSERVATION AND RECOVERY ACT

RCRA Subtitle C provides a regulatory framework for ensuring that the following objectives are met:

- Protecting human health and the environment from potential adverse effects of improper hazardous waste management;
- Conserving material and energy resources through waste recycling and recovery; and
- Reducing or eliminating the generation of hazardous waste as expeditiously as possible.

To achieve these objectives, RCRA authorizes EPA to regulate the generation, treatment, storage, transportation, and disposal of hazardous waste (referred to as the "cradle to grave" management system).

Generators of RCRA-regulated waste must comply with recordkeeping, reporting, labeling, and container requirements. They are also responsible for tracking waste through a manifest system. The manifest system creates a written record of the chain-of-custody from the time a waste leaves a generator until it reaches its final disposal site. Transporters are subject to labeling and container standards, as well as recordkeeping requirements of the manifest system. Treatment, storage, and disposal facilities (TSDFs) are subject to recordkeeping and reporting requirements, and technical standards covering treatment and disposal methods, as well as the location, construction, and operation of disposal sites. Finally, both generators and TSDFs, depending upon the type of waste handled, may be subject to certain land disposal restrictions that require treatment before waste is land-disposed.

Applicability of RCRA to Federal Facilities

Federal facilities have broad compliance responsibilities under RCRA. The most sweeping of these is RCRA §6001, which subjects Federal facilities to RCRA civil, administrative, and criminal penalties and makes Federal employees personally liable to RCRA criminal penalties. Other relevant RCRA responsibilities for Federal facilities include oversight of contractor operated facilities and cooperating with EPA inspections.

Definitions of Important Compliance Terms -- RCRA

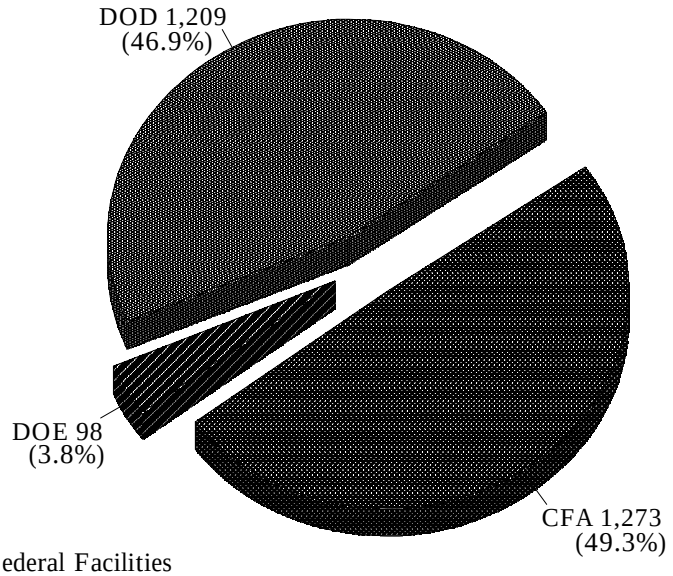
Class I Violation	Deviations from regulations or provisions of compliance orders, consent agreements, consent decrees, or permit conditions that could result in a failure to: • assure that hazardous waste is destined for and delivered to authorized TSDFs; • prevent releases of hazardous waste or constituents, both during the active and any applicable post-closure periods of the facility operation where appropriate; • assure early detection of such releases; or • perform emergency cleanup operations or other corrective actions for releases.
Out of Compliance	A facility that, upon reinspection, failed to address an outstanding violation is considered out of compliance with regulations or provisions of compliance orders, consent agreements, consent decrees, or permit conditions. For the purposes of this report, compliance status is assessed at the end of the fiscal year.
Returned to Compliance	A facility that has been reinspected by EPA, following a discovery of a violation(s), and found to have corrected these violations is said to have returned to compliance. A return to compliance is not necessarily indicative of an entire facility's compliance status, rather, it only measures compliance with respect to a particular violation. For the purposes of this report, returns to compliance are assessed at the end of the fiscal year.

RCRA Universe

In 1994, there were 290,586 facilities in the RCRA universe, an increase of 4,545 (1.6 percent) from 1993. The 2,580 Federal RCRA facilities represent a fairly small portion of the entire RCRA universe in FY 1994, approximately 0.9 percent. Of the 2,580 facilities, 46.9 percent are DOD, 3.8 percent are DOE, and 49.3 percent are CFA, as shown in Exhibit III - 3.

Exhibit III - 3

Universe of RCRA Federal Facilities (FY 1994)



N = 2,580 RCRA Federal Facilities

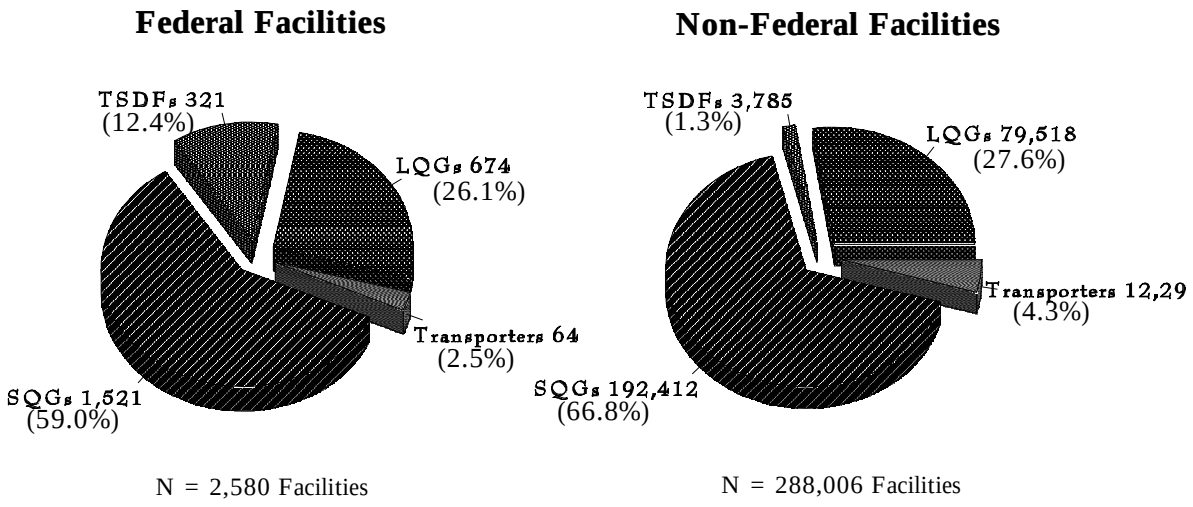
RCRA facilities can be subdivided into four categories: small quantity generators (SQGs), large quantity generators (LQGs), transporters, and TSDFs.[3] SQGs make up the largest share of all RCRA facilities (66.7 percent), followed by LQGs (27.6 percent), transporters, and TSDFs (4.3 percent and 1.4 percent respectively).

As can be seen in Exhibit III - 4, the distribution of Federal facilities by handler type differs from non-Federal facilities in at least two important respects. First, the share of the universe comprised by TSDFs is nearly 10 times greater among Federal facilities than among non-Federal facilities. Second, transporters are almost twice as common within the non-Federal sector than they are within the Federal sector. LQGs account for roughly the same percentage of Federal and non-Federal facilities, while SQGs comprise a slightly smaller portion of the Federal facility universe relative to the non-Federal facility universe.

[3] EPA frequently further subdivides TSDFs into combustion facilities, land disposal facilities, and treatment/storage facilities.

Exhibit III - 4

RCRA Facility by Handler Type (FY 1994)

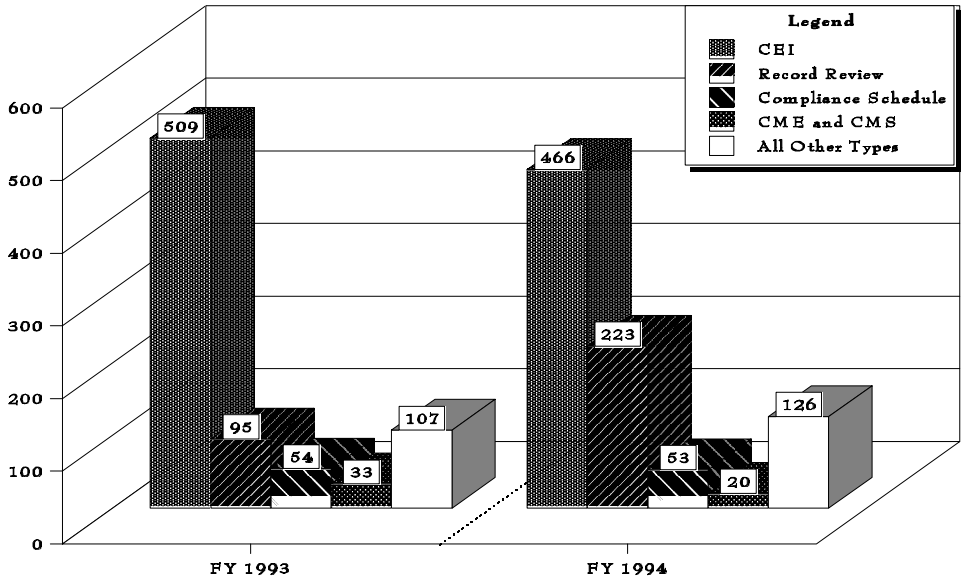


RCRA Inspections

RCRA inspections range in intensity from very complex comprehensive compliance evaluation inspections (CEI) to less complex financial and non-financial record reviews. Exhibit III - 5 shows that CEIs were by far the single most common type of inspection performed, followed by record reviews and compliance schedule inspections. Ground water monitoring inspections include both comprehensive ground water evaluations (CMEs) and CMEs without significant numbers of samples (CMSs). Inspections collectively classified as "All Other Types" include corrective action oversight inspections, case development inspections, operations and maintenance inspections, and any other unspecified inspections.

Exhibit III - 5

RCRA Inspections at Federal Facilities

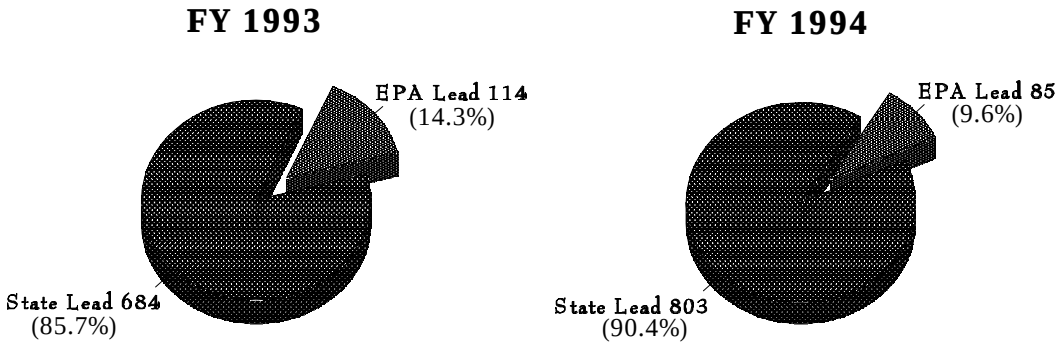


N = 798 Inspections N = 888 Inspections

Although it still maintains significant policy-setting and oversight responsibilities, EPA has delegated authority to implement and administer the base RCRA program to 46 of the States. Therefore, the States took the lead on the majority of RCRA inspections during FY 1993 and 1994, including those conducted at Federal facilities (see Exhibit III - 6).

Exhibit III - 6

RCRA Inspection Leads at Federal Facilities

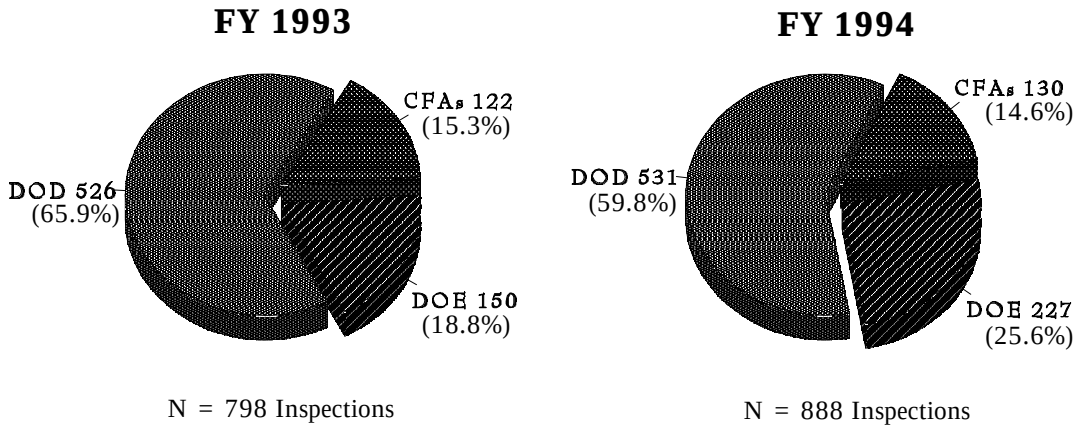


N = 798 Inspections N = 888 Inspections

To assess compliance with RCRA requirements, Federal and State inspectors conducted 798 and 888 inspections at Federal facilities in FY 1993 and FY 1994, respectively. As shown in Exhibit III - 7, DOD's share of inspections declined by 6.1 percent of the total from FY 1993 to FY 1994, and DOE's share increased by approximately the same amount.

Exhibit III - 7

RCRA Inspections by Agency



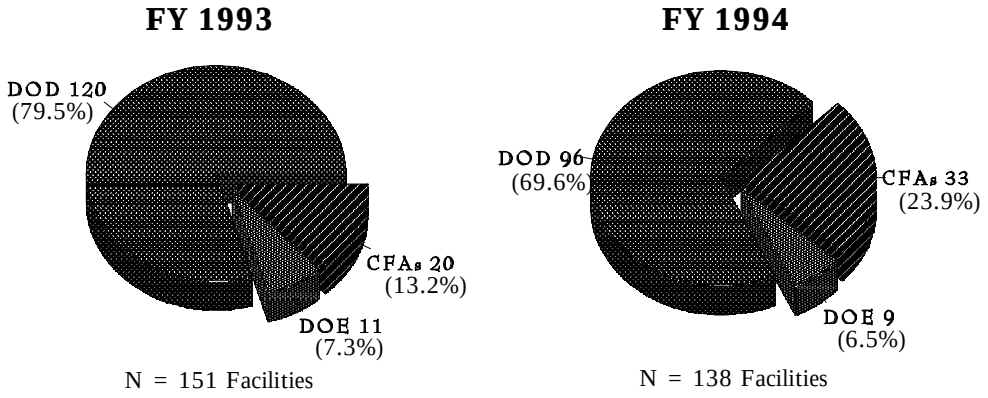
Federal facilities subject to RCRA inspection during FY 1993 and FY 1994 were located throughout the country, with EPA and States conducting the largest number over the two-year period in Region IV (534). Only Region VIII had more than 200 inspections during this period (203); although Regions VI and IX were extremely close to this threshold, with 197 and 183 inspections respectively (see Exhibit III - 13).

RCRA Compliance: Class I Violations

RCRA Class I violations represent deviations from regulations or other relevant operating requirements that could significantly increase the risk of improper hazardous waste management; result in releases of hazardous waste or hazardous constituents to the environment; or decrease the effectiveness of responses to such releases. In FY 1993 and FY 1994, there were a total of 151 and 138 facilities, respectively, that were cited for Class I RCRA violations. Exhibit III - 8 presents the percentage of facilities receiving Class I violations according to agency.

Exhibit III - 8

Federal Facilities with Class I Violations by Agency

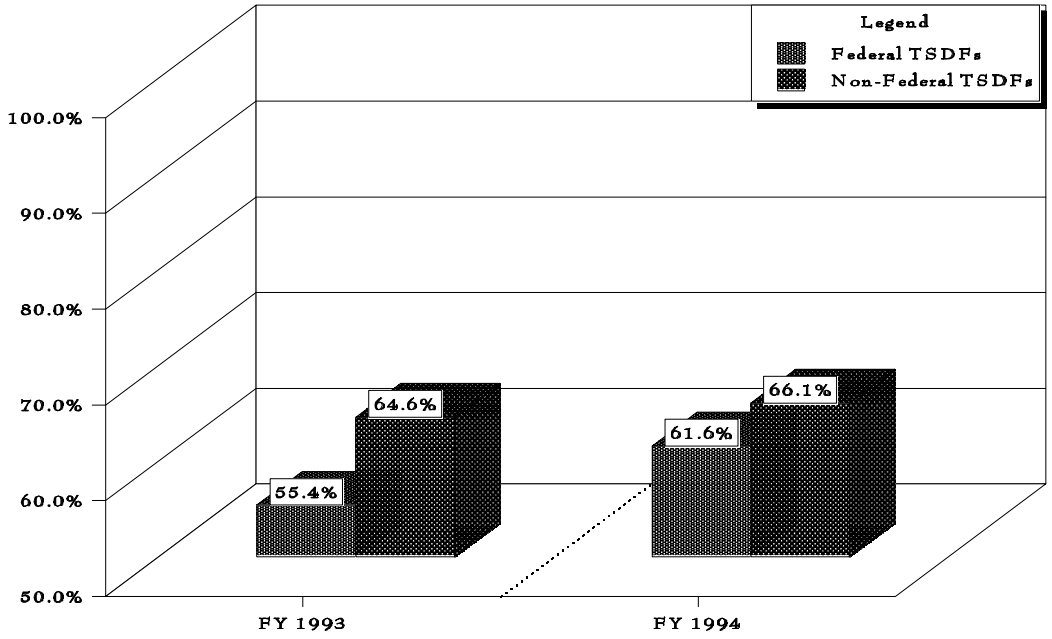


Both DOE and DOD showed decreases in terms of their share of Federal facilities with Class I violations; the percentages dropped from 79.5 percent to 69.6 percent at DOD facilities and from 7.3 percent to 6.5 percent at DOE facilities. In contrast, the percentage of CFA facilities with Class I violations increased markedly from 13.2 percent to 23.9 percent.

Of the Federal facilities cited for Class I violations in FY 1993 and FY 1994, 141 and 118, respectively, were TSDFs, which are generally considered major Federal facilities under RCRA. Therefore, of the total number of inspected Federal TSDFs (316 in FY 1993 and 307 in FY 1994), 55.4 percent and 61.6 percent were <u>not</u> cited for Class I violations in FY 1993 and FY 1994. The corresponding Class I violation "compliance rates" for the non-Federal universe of inspected TSDFs were 64.6 percent and 66.1 percent. Exhibit III - 9 graphically presents this comparison.

Exhibit III - 9

RCRA Class I Violation "Compliance Rates" at Federal vs Non-Federal TSDFs



Enforcement Actions

There were a total of 347 enforcement actions taken against Federal facilities in FY 1993, with slightly more, 362, being taken in FY 1994. Exhibit III - 10 presents a breakdown of informal versus formal enforcement actions, as well as proposed versus final penalties assessed. For both years, more than two-thirds of enforcement actions taken were informal (e.g., warning letters). Formal actions taken against Federal facilities include: civil actions, consent decrees, Federal Facility Compliance Agreements (FFCAs), referrals to other enforcement authorities, judicial orders, notices of noncompliance, administrative orders, corrective action orders, and imminent hazard orders. The most commonly used formal enforcement action is the RCRA §3008(a) administrative order; more than 75 percent (130 out of 173) of formal enforcement actions taken in FY 1993 and FY 1994 were administrative orders.

Proposed penalties under RCRA decreased from nearly nine million dollars in FY 1993 to slightly less than five million dollars in FY 1994, a drop of more than 45 percent. Similarly, final penalties assessed dropped by approximately one million dollars, or 42 percent over the same period. The ratio of proposed to final penalties, however, did not change substantially from FY 1993 to FY 1994.

Exhibit III - 10

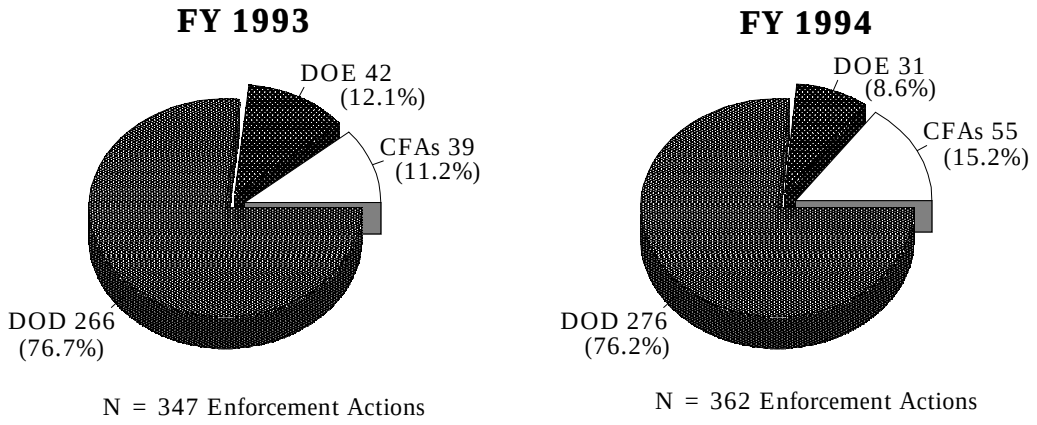
RCRA Enforcement Actions at Federal Facilities

Type of Action	FY 1993 Total	FY 1994 Total
Informal	269 (77.5%)	267 (73.8%)
Formal	78 (22.5%)	95 (26.2%)
All Enforcement Actions	**347**	**362**
Proposed Penalties	$ 8,796,970	$ 4,807,062
Final Penalties Collected (3/20/95)	$ 2,389,178	$ 1,382,957

Exhibit III - 11 reveals that from FY 1993 to FY 1994, CFAs saw their share of enforcement actions increase, while DOD and DOE facilities experienced modest declines. As one might expect, the distribution of enforcement actions across agencies correlates fairly well with the distribution of Class I violations at Federal facilities (see Exhibit III - 8).

Exhibit III - 11

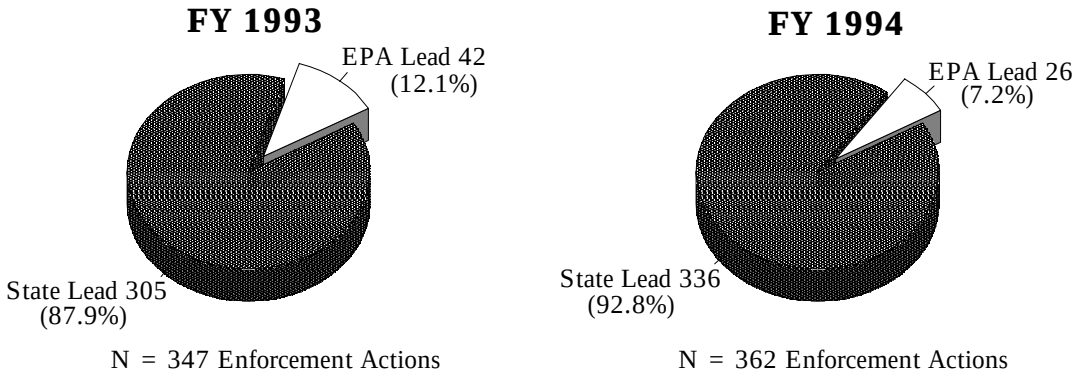
RCRA Enforcement Actions by Agency



As shown in Exhibit III - 12, the vast majority of enforcement actions at Federal facilities are taken under State lead. In FY 1993, 87.9 percent (305 out of 347) enforcement actions were led by States; in FY 1994 the State share increased to 92.8 percent (336 out of 362).

Exhibit III - 12

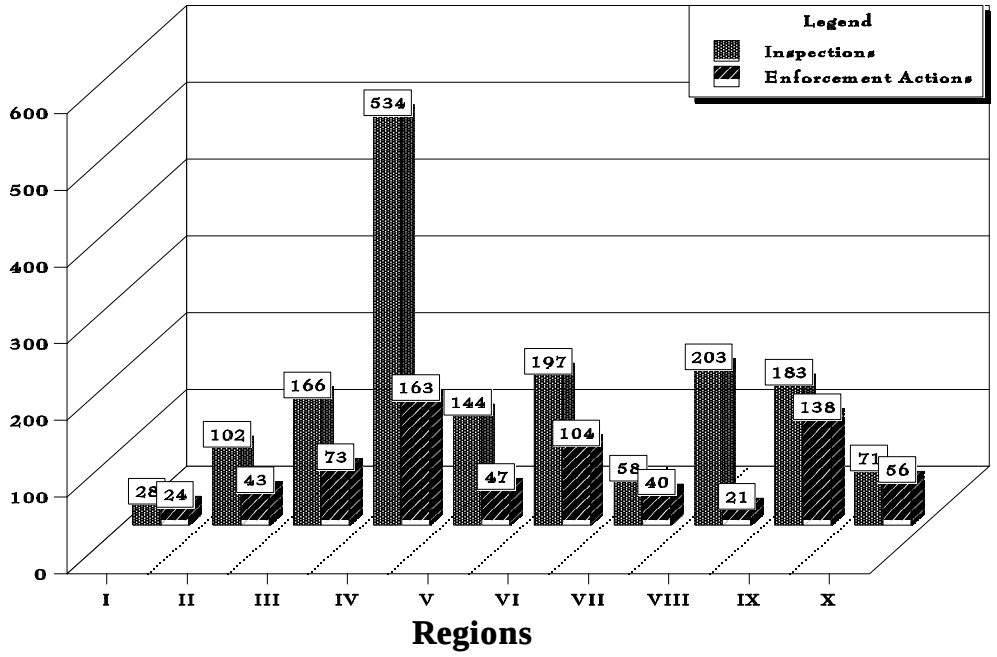
RCRA Enforcement Leads



For the two-year period FY 1993 and FY 1994, most enforcement actions taken at Federal facilities occurred in Regions IV, VI, and IX. Not surprisingly, these three Regions also were among the top four in terms of the number of inspections conducted. Exhibit III - 13 presents a breakdown of inspection and enforcement activity by Region.

Exhibit III - 13

RCRA Inspections and Enforcement Actionsby Region (FY 1993-94)



N = 1686 Inspections & 709 Enforcement Actions

Region VIII had the second highest number of inspections, yet had the lowest number of enforcement actions. In contrast, the ratio of enforcement actions to inspections was more than 0.85 in Region I. Other Regions with high enforcement/inspection ratios include: Region X (0.82), Region IX (0.75), and Region VII (0.69).

RCRA Compliance: Return to Compliance

RCRA facilities are deemed out of compliance if they are cited for violating regulations, provisions of compliance orders, consent agreements, consent decrees, or permit conditions, and have not established a target compliance date. A facility that has been reinspected by EPA and found to have corrected these violations is said to have returned to compliance. Exhibit III - 14 presents the number of Federal facilities out of and returned to compliance at the end of FY 1993 and FY 1994.

Exhibit III - 14

Federal Facilities Out of and Returned to Compliance

Agency	FY 1993		FY 1994		
	Out of Compliance	Returned to Compliance	Out of Compliance	Change from 1993	Returned to Compliance
DOD	231	89 (38.5%)	212	- 8.2%	92 (43.4%)
CFAs	56	16 (28.6%)	53	- 5.4%	23 (43.4%)
DOE	20	7 (35.0%)	15	- 25.0%	10 (66.7%)
TOTAL	307	112 (36.5%)	280	- 8.8%	125 (44.6%)

The number of Federal facilities found to be out of compliance at the end of the fiscal year decreased by nearly nine percent from FY 1993 to FY 1994. DOD exhibited the largest numerical decrease (19 facilities), although DOE experienced the largest decline in percentage terms (25 percent). Rates for return to compliance at Federal facilities improved for all agencies from FY 1993 to FY 1994, with DOE again showing the most improvement.

Documentation for Exhibits in this Section

Exhibit Title	Information Source	Date of Data Pull	Comments
Universe of RCRA Federal Facilities	RCRIS	03/17/95	--
RCRA Facility by Handler Type	RCRIS	03/17/95	--
RCRA Inspections at Federal Facilities	RCRIS	03/17/95	--
RCRA Inspection Leads	RCRIS	03/17/95	--
RCRA Inspections by Agency	RCRIS	03/17/95	--
Federal Facilities with Class I Violations by Agency	RCRIS	03/20/95	--
RCRA Class I Compliance Rates at Federal TSDFs vs All Facilities	RCRIS	03/20/95	--
RCRA Enforcement Actions at Federal Facilities	RCRIS	03/20/95	--
RCRA Enforcement Actions by Agency	RCRIS	03/20/95	--
RCRA Enforcement Leads	RCRIS	03/20/95	--
RCRA Inspections and Enforcement Actions by Region	RCRIS	03/20/95	--
Federal Facilities Out of and Returned to Compliance	RCRIS	03/20/95	--

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CLEAN WATER ACT

The CWA and its 1987 amendments are the primary statute governing the restoration and maintenance of the chemical, physical and biological integrity of the nation's waters. Its principal objectives are to:

- Eliminate the discharge of pollutants into U.S. navigable waters;
- Achieve an interim goal of water quality which, wherever attainable, provides for the protection and propagation of shellfish, fish, and wildlife and provides for recreation in and on the water; and
- Prohibit the discharge of pollutants in toxic amounts.

To achieve these objectives, CWA authorizes EPA and States to regulate, implement, and enforce compliance with guidelines and standards to control the direct and indirect discharge of pollutants to U.S. waters.

Dischargers of point source wastewater must submit an application for a National Pollutant Discharge Elimination System (NPDES) permit. NPDES permits contain water quality-based and/or technology-based standards for effluent discharges, compliance schedules, and monitoring and reporting requirements. In addition, Federal facilities that discharge to Publicly Owned Treatment Works (POTWs) are subject to national general standards, categorical pretreatment standards, and State or local pretreatment standards, if they exist. Federal facilities generating stormwater point source discharges may be required to have a permit. The NPDES program is approved in 40 States, while the pretreatment program is administered in 29 approved States.

Applicability of CWA to Federal Facilities

Federal facilities have broad compliance responsibilities under CWA. The most sweeping of these is CWA §313, which waives the traditional immunity of Federal agencies and requires Federal facilities to comply with Federal, State, interstate, and local requirements. Important CWA responsibilities for Federal facilities include complying with EPA inspections and procedural and substantive requirements (including recordkeeping, reporting, payment of service charges and permits). In addition, §313 subjects Federal employees to criminal, but not civil penalties.

Definitions of Important Compliance Terms -- CWA/NPDES	
Significant Non-Compliance (SNC)	A violation of significant magnitude and/or duration to be considered among the Agency's priorities for review and/or response. There are several categories of violations that can be considered "significant;" this report includes all categories noted in the NPDES permit compliance system. Because the definition of SNC is EPA policy it can change or evolve as the NPDES program changes.
Exceptions List	A list of facilities that remain in SNC after two quarters without returning to compliance or without the administering agency initiating appropriate formal enforcement action.
Major Facilities	Facilities that contribute a larger share of pollutants discharged to surface waters. Designation of major facilities allows the NPDES program to focus resources effectively and efficiently.

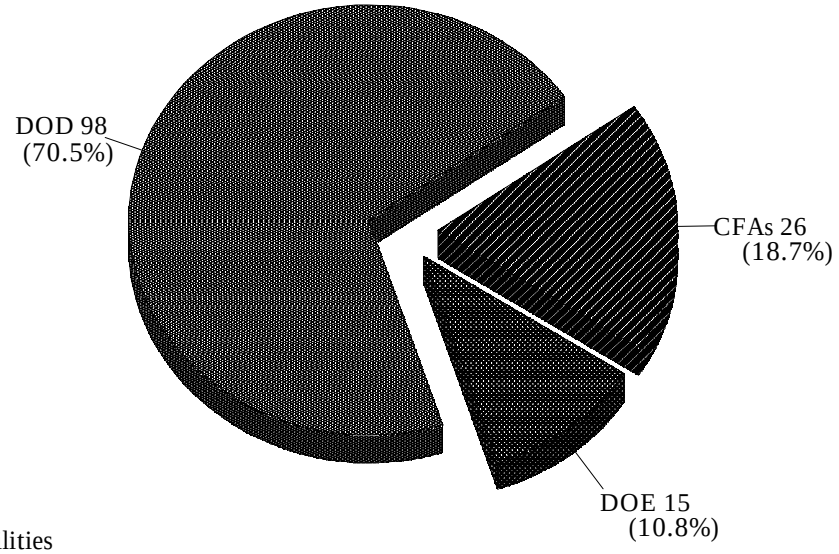
NPDES Universe

At the end of FY 1994[4], Federal facilities comprised approximately 2.0 percent (139) of the total universe of 7,180 major facilities regulated under the NPDES program. As shown in Exhibit III - 15, of these 139 facilities, 70.5 percent were DOD, 10.8 percent were DOE, and 18.7 percent were CFA facilities.

[4]The Permit Compliance System that tracks NPDES facilities provides a moving quarterly "snapshot" of facilities in the universe. Since the number of major Federal facilities exiting or entering the universe during a given quarter is relatively small, the total number of Federal facilities listed during the final quarter yields a reasonably accurate estimate of how the universe changes from year to year.

Exhibit III - 15

Major Federal NPDES Facilities by Agency (FY 1994)



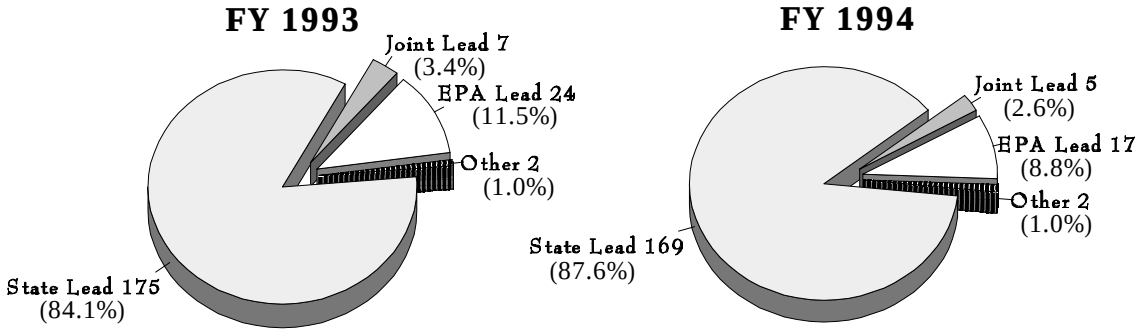
N = 139 Facilities

NPDES Inspections

Historically, most NPDES inspections are conducted by the States. As shown in Exhibit III - 16, this remained the case in FY 1993 and FY 1994, with more 80 percent of inspections being led by States.

Exhibit III - 16

NPDES Inspection Leads



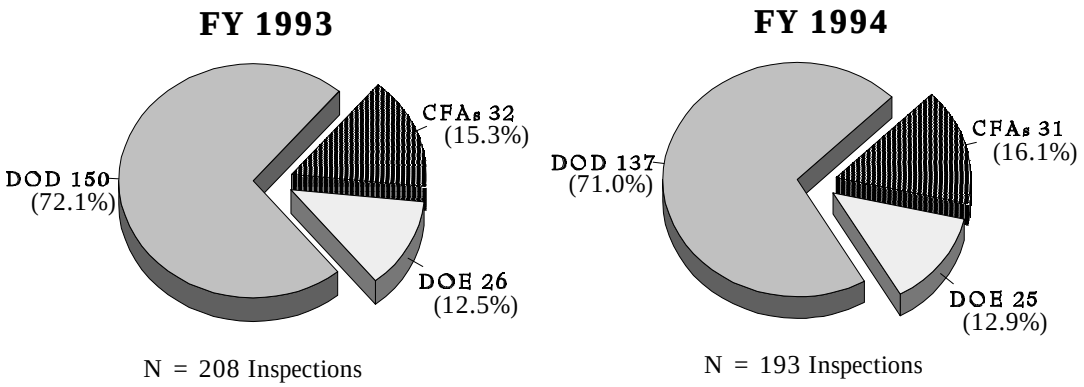
N = 208 Inspections

N = 193 Inspections

The number of NPDES inspections at Federal facilities decreased by 7.2 percent, from 208 in FY 1993 to 193 in FY 1994. Exhibit III - 17 presents a breakdown of NPDES inspections according to agency. The distribution of inspections by agency remained relatively constant during FY 1993 and FY 1994.

Exhibit III - 17

NPDES Inspections by Agency



NPDES Violations: Federal Facilities in SNC

Exhibit III - 18 compares the percentage of major Federal facilities not in SNC against corresponding "compliance rates" for the universe of major non-Federal NPDES facilities. As shown in the Exhibit, in FY 1993, the percentage of major Federal facilities not in SNC was higher than for non-Federal facilities. In FY 1994, the compliance rate for Federal facilities declined slightly relative to non-Federal facilities.

Exhibit III - 18

Comparison of NPDES Compliance Rates (% not in SNC)

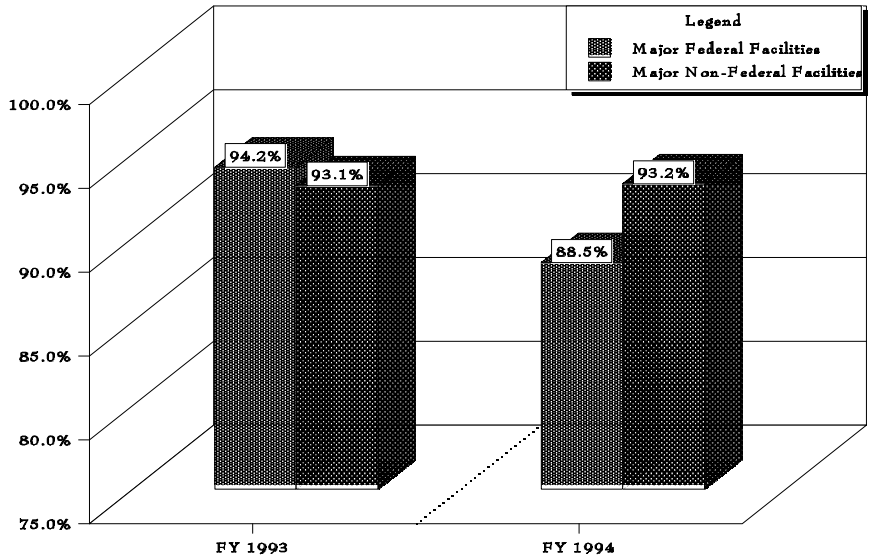


Exhibit III - 19 shows that the number of major Federal facilities determined to be in SNC during the fourth quarter increased from eight in FY 1993 to 16 in FY 1994. As a percentage of major Federal facilities, this represents an increase from 5.8 to 11.5 percent. The number of major Federal facilities remaining on the exceptions list at the end of the fourth quarter made up a fairly small portion of all major Federal facilities (i.e., less than three percent) for both FY 1993 and FY 1994.

Exhibit III - 19

NPDES Compliance at Major Federal Facilities

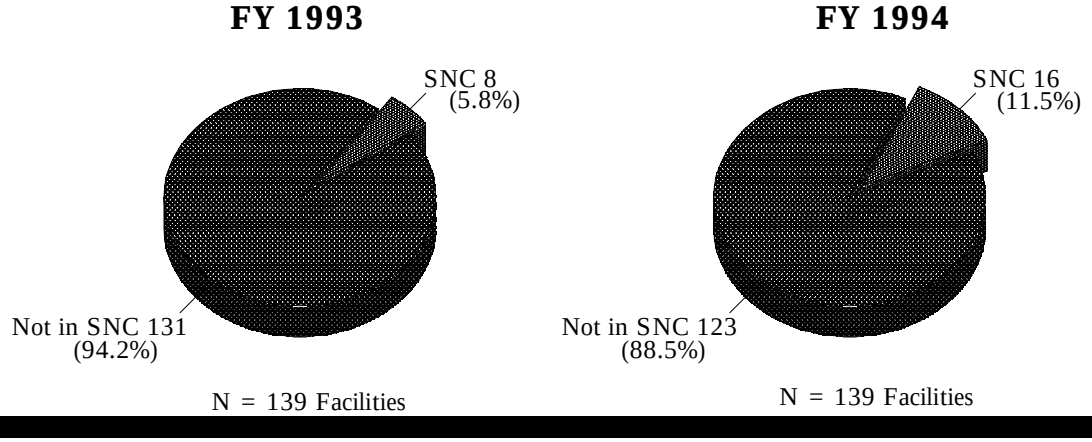
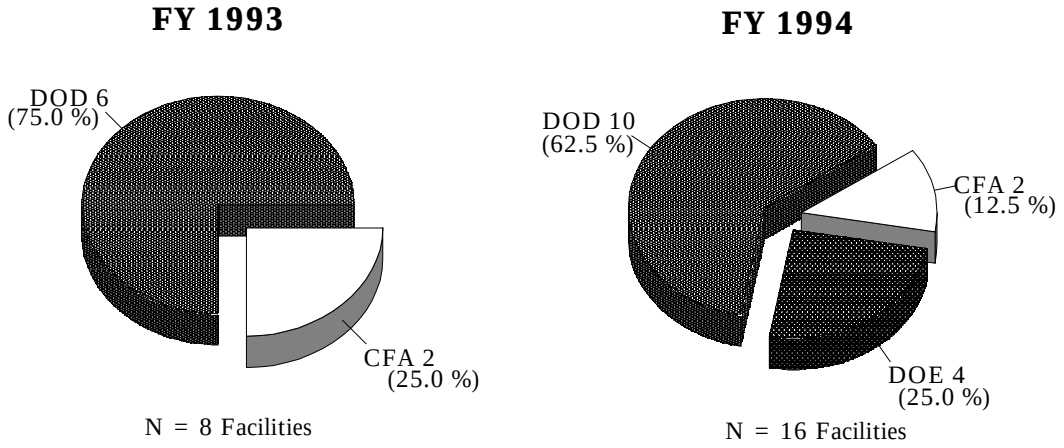


Exhibit III - 20 presents Federal facilities in SNC with NPDES according to agency. For both FY 1993 and FY 1994, DOD facilities comprised more than 60 percent of Federal facilities in SNC, although the relative share of DOD facilities declined from 75 percent to 62.5 percent. The number of CFA facilities in SNC remained constant, but their relative share decreased. Both the number and percent of DOE facilities in SNC increased over the same period.

Exhibit III - 20

Major Federal Facilities in SNC by Agency

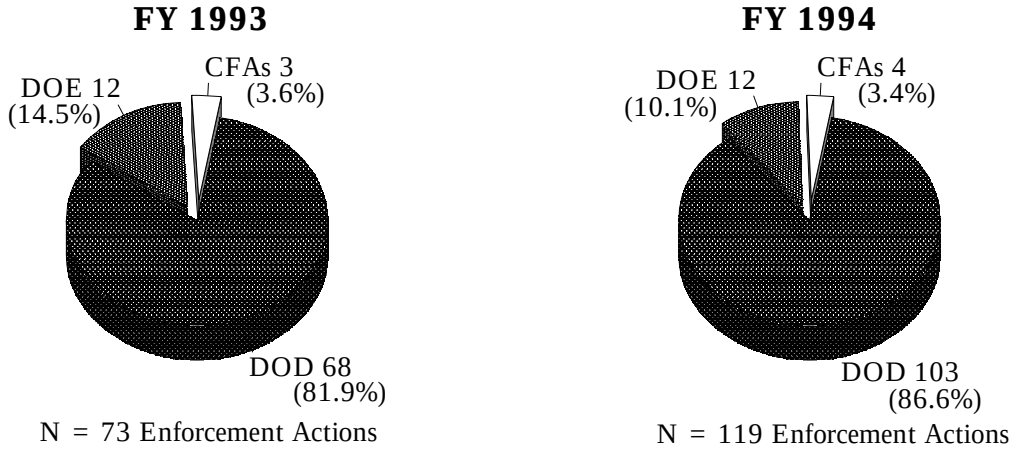


NPDES Enforcement Actions

Exhibit III - 21 shows the distribution across agencies of enforcement actions taken under CWA/NPDES. As shown below, the vast majority of enforcement actions were taken against DOD facilities. In addition, DOD facilities' share of enforcement actions increased by nearly 5.0 percent from FY 1993 to FY 1994. Comparing the number of enforcement actions to the level of inspection activity at Federal facilities over the same period (see Exhibit III - 17) reveals that for both years DOD facilities were subject to a greater share of enforcement actions than inspections.

Exhibit III - 21

NPDES Enforcement Actions by Agency



EPA and States took 119 enforcement actions in FY 1994 to address NPDES noncompliance at Federal facilities. This represents an increase of more than 50 percent relative to FY 1993. As shown in Exhibit III - 22, the share of informal enforcement actions (i.e., phone calls, warning letters, and informal NOVs) remained fairly constant from FY 1993 to FY 1994, while the percentage of formal actions (i.e., FFCAs, Administrative Orders, and formal NOVs) decreased from nearly one-third to slightly more than one-fifth of the total for the year. The percentage of other enforcement actions (i.e., unspecified pending actions and referrals) nearly doubled over the same period.

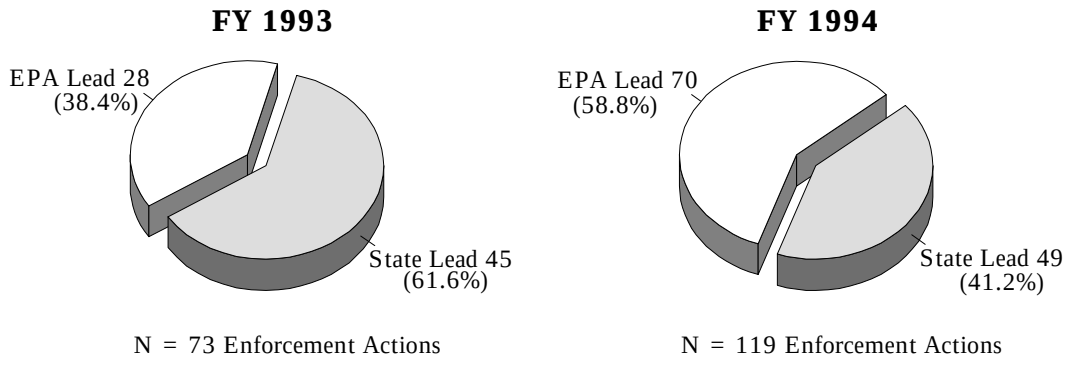
Exhibit III - 22
NPDES Enforcement Actions at Federal Facilities

Type of Enforcement Action	Number of Actions in FY 1993	Number of Actions in FY 1994
Informal	41 (56.2%)	66 (55.5%)
Formal	22 (30.1%)	26 (21.8%)
Other	10 (13.7%)	27 (22.7%)
TOTAL	**73**	**119**

Between FY 1993 and FY 1994, there was a substantial increase in the share of enforcement actions taken by EPA relative to the States. As shown in Exhibit III - 23, in FY 1993 more than 60 percent of enforcement actions were State led; however, in FY 1994 the distribution nearly reversed itself, with nearly 60 percent of all actions being led by EPA.

Exhibit III - 23

NPDES Enforcement Leads



Documentation for Exhibits in this Section

Exhibit Title	Information Source	Date of Data Pull	Comments
Major Federal NPDES Facilities by Agency	PCS	02/28/95	--
NPDES Inspection Leads	PCS	02/28/95	--
NPDES Inspections by Agency	PCS	02/28/95	--
Comparison of NPDES Compliance Rates	PCS	02/28/95	--
NPDES Compliance at Major Federal Facilities	PCS	02/28/95	Exceptions list data drawn from annual NPDES Enforcement Accomplishments Report
Major Federal Facilities in SNC by Agency	PCS	10/11/95	--
NPDES Enforcement Actions by Agency	PCS	02/28/95	--
NPDES Enforcement Actions at Federal Facilities	PCS	02/28/95	--
NPDES Enforcement Leads	PCS	02/28/95	--

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SAFE DRINKING WATER ACT

The SDWA is the basis for protecting public drinking water systems from harmful contaminants. Its principle objectives are to:

- Protect human health and ensure the aesthetic quality of drinking water;
- Protect underground sources of drinking water; and
- Establish programs to protect sole-source aquifer and wellhead protection areas.

To reach these objectives EPA established the Public Water System Supervision (PWSS) Program. Under the 1986 Amendments, EPA set primary and secondary drinking water standards to protect human health and ensure the aesthetic quality of drinking water. The Underground Injection Control (UIC) Program protects underground sources of drinking water through the establishment of State wellhead and sole source aquifer protection programs.

States are primarily responsible for enforcing the public water regulations, provided they adopt regulations at least as stringent as the national requirements, develop adequate procedures for enforcement, maintain records, and create a plan for providing safe drinking water under emergency conditions. In addition, if the State permits variances and exemptions, they must grant them in accordance with the SDWA. When a public water system does not comply with regulations, EPA provides technical assistance to the State and the public water supply system, and also may issue enforcement actions.

Applicability of SDWA to Federal Facilities

Federal facilities have ample compliance responsibilities under the Act. SDWA §1447 requires compliance with all Federal, State, and local requirements and administrative authorities to the same extent as any nongovernmental entity. Federal facilities supplying water that are subject to primary drinking water regulations or to underground injection control standards are required to conduct certain activities, including establishing and maintaining records, making reports, and conducting monitoring activities. In addition, they must provide information required by EPA to assist in establishing regulations, determining whether the facilities are complying with SDWA, evaluating the health risks of unregulated contaminants, and advising the public of such risks. Any person may commence a civil action against a Federal facility that is alleged to be in violation of any SDWA requirement.

Definitions of Important Compliance Terms -- PWSS

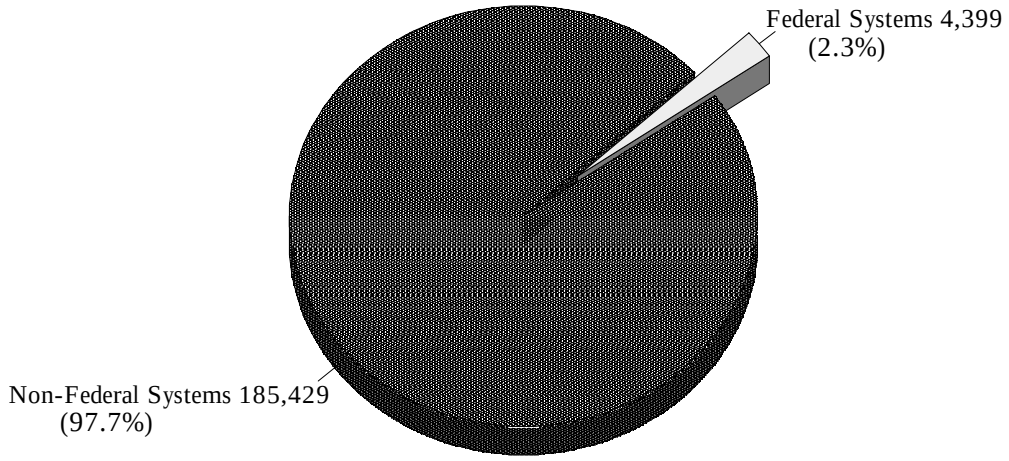
Public Water System (PWS)	A PWS provides piped water for human consumption to at least 15 service connections or serves an average of at least 25 people for at least 60 days each year.
Community Water System (CWS)	A PWS that provides water to the same population year-round.
Significant Noncomplier (SNC)	A PWS that is found to have more serious, frequent, or persistent violations.

PWSS Universe

As shown in Exhibit III - 24, in FY 1994, Federal systems comprised approximately 2.3 percent (4,236) of the total universe of 189,828 systems regulated under the PWSS.

Exhibit III - 24

Universe of Federal Systems (FY 1994)



N = 189,828 Major Systems

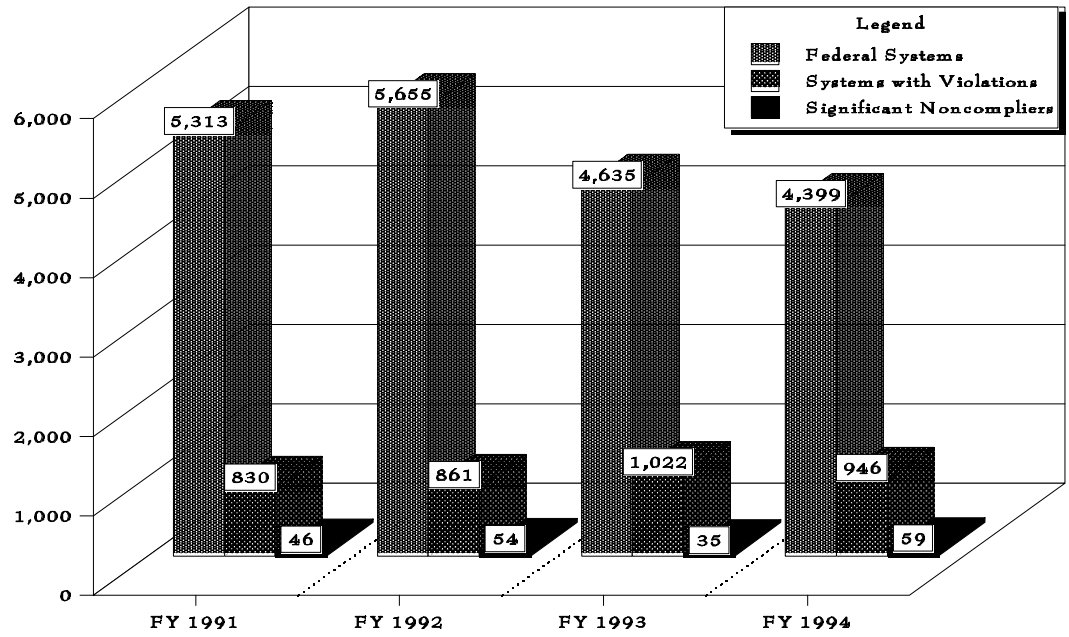
PWSS Violations

Exhibit III - 25 shows that overall compliance at Federal systems under the PWSS has declined slightly since FY 1991. The number of Federal systems cited for violations increased from 830 in FY 1991 to 946 in FY 1994. Moreover, because the number of Federal systems actually declined, the percentage of systems with violations increased from 15.6 percent to 21.5

percent over the same period. SNC systems increased slightly from 0.9 percent in FY 1991 to 1.3 percent in FY 1994.

Exhibit III - 25

PWSS Compliance at Federal Systems

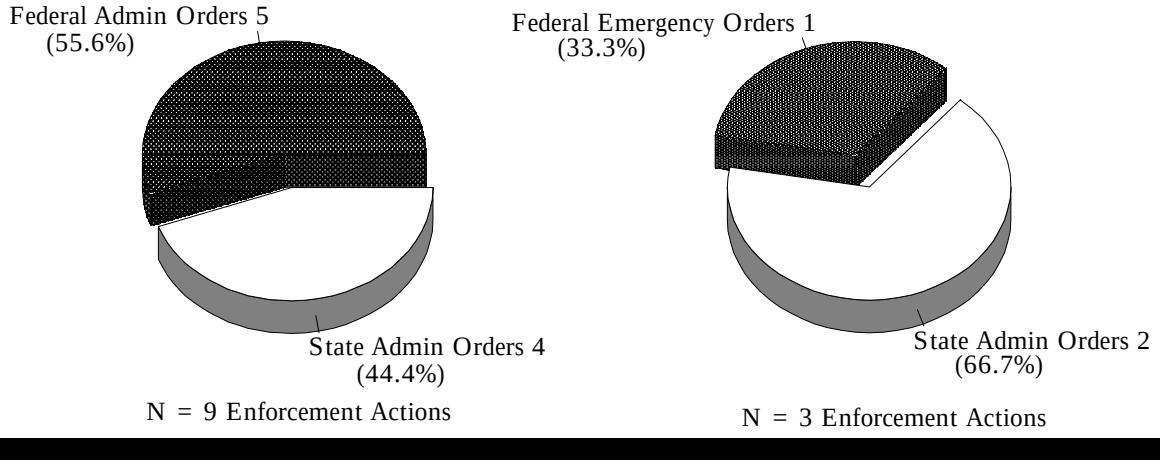


PWSS Enforcement

Very few Federal systems received formal enforcement actions for violations under the PWSS, either from EPA or the States. On a Federal level, formal actions include Administrative Orders and §1431 Emergency Orders, while State formal actions include Administrative Orders, Civil Referrals, and Criminal Cases filed. Exhibit III - 26 shows that the total number of Federal systems receiving enforcement actions decreased from nine in FY 1993 to just three in FY 1994. For the two year period, the Federal/State share of enforcement actions taken was identical (six Federal, six State), although between FY 1993 and FY 1994, these shares fluctuated slightly. No Federal systems received Civil Referrals or had Criminal Cases filed against them during either year.

Exhibit III - 26

PWSS Enforcement at Federal Facilities



Documentation for Exhibits in this Section

Exhibit Title	Information Source	Date of Data Pull	Comments
Universe of Federal Systems	FRDS-II	02/17/95	--
PWSS Compliance at Federal Systems	FRDS-II	08/23/95	--
PWSS Enforcement at Federal Facilities	FRDS-II	08/23/95	--

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CLEAN AIR ACT

The CAA, as amended in 1990, is the primary Federal statute regulating air emissions. Its principle objectives are to protect and enhance the quality of air resources, promote research to reduce air pollution, and assist in the implementation of air pollution prevention programs at the Regional, State, and local levels.

To fulfill its mandate of air pollution protection, the CAA establishes four types of health, welfare, and technology-based standards and programs to prevent and control air pollution:

- ***National Ambient Air Quality Standards (NAAQS)*** -- primary and secondary standards for six criteria air pollutants. Primary standards are devised to protect public health, while the purpose of secondary standards is to protect public welfare (plant life, cultural monuments, and wildlife);

- ***National Emissions Standards for Hazardous Air Pollutants (NESHAP)***-- consist of four provisions: Maximum Available Control Technology (MACT), technology-based standards for sources of 189 toxic air pollutant emissions; health-based standards in addition to MACT; standards for stationary area sources (numerous, small sources such as dry cleaners and gas stations); and requirements for the prevention of catastrophic releases;

- ***New Source Performance Standards (NSPS)*** -- are technology-based emission limitations for new or modified stationary sources of emissions; and

- ***Prevention of Significant Deterioration of Air Quality (PSD)*** - are areas with air cleaner than presently required by NAAQS. Polluting sources must install Best Available Control Technology (BACT) which are technology-based standards stricter than NSPS.

Applicability of CAA to Federal Facilities

Federal facilities have broad compliance responsibilities under the CAA. Section 7418 of the CAA requires that Federal facilities comply with all Federal, State, interstate, and local requirements, as well as the applicable provisions of a valid inspection and maintenance program.

Definitions of Important Compliance Terms -- CAA

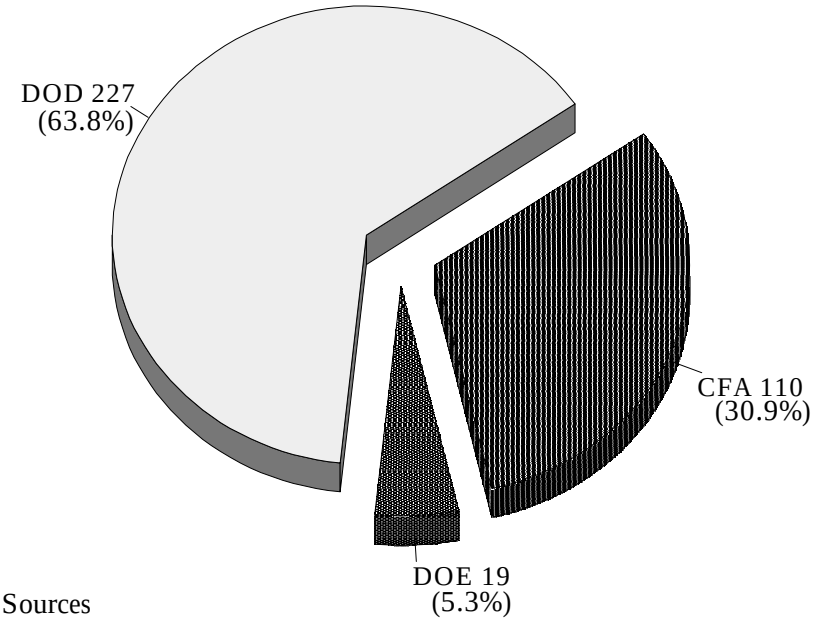
Major Sources	Facilities that emit or have the potential to emit over 100 tons/year of a regulated pollutant.
Out of Compliance	Facilities that have exceeded emissions standards and/or violated procedural requirements (e.g., failing to meet a compliance schedule) are deemed out of compliance.
Substantive Violation	Under the asbestos NESHAP program, a violation of proper abatement practices (e.g., failure to wear protective equipment) is considered a substantive violation.

CAA Universe

In FY 1994, 356 major Federal sources existed within the universe of 39,755 major sources regulated under all programs within the CAA. As shown in Exhibit III- 27, 63.8 percent were DOD, 5.3 percent were DOE, and 30.9 percent were CFAs.

Exhibit III - 27

CAA Major Federal Sources by Agency (FY 1994)



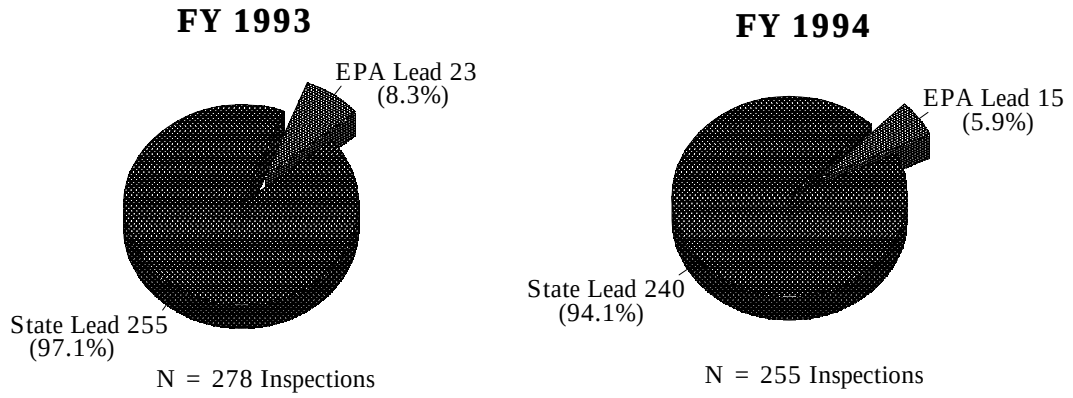
N = 356 Major Sources

CAA Inspections

Exhibit III - 28 below reveals that States continued to take a lead role on the vast majority of CAA inspections in FY 1993 and FY 1994 (92 percent and 94 percent, respectively).

Exhibit III - 28

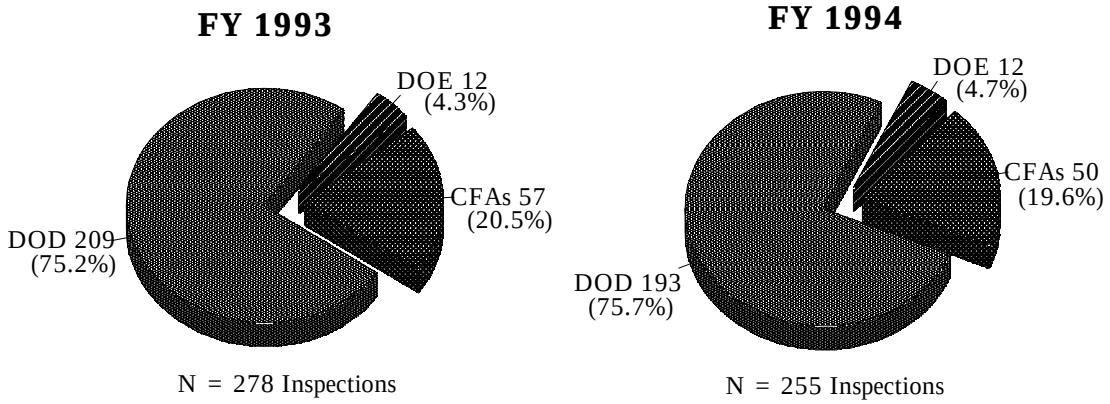
CAA Inspection Leads at Federal Facilities



EPA and State inspectors conducted a total of 255 CAA inspections of major Federal sources during FY 1994, a decrease of slightly more than eight percent relative to FY 1993. Some of these sources were inspected more than once during the year -- the actual number of major Federal sources inspected was 220 in FY 1993 and 200 in FY 1994. As shown in Exhibit III - 29, the distribution of EPA and State inspections across agencies remained relatively unchanged from FY 1993 to FY 1994.

Exhibit III - 29

CAA Inspections According to Agency

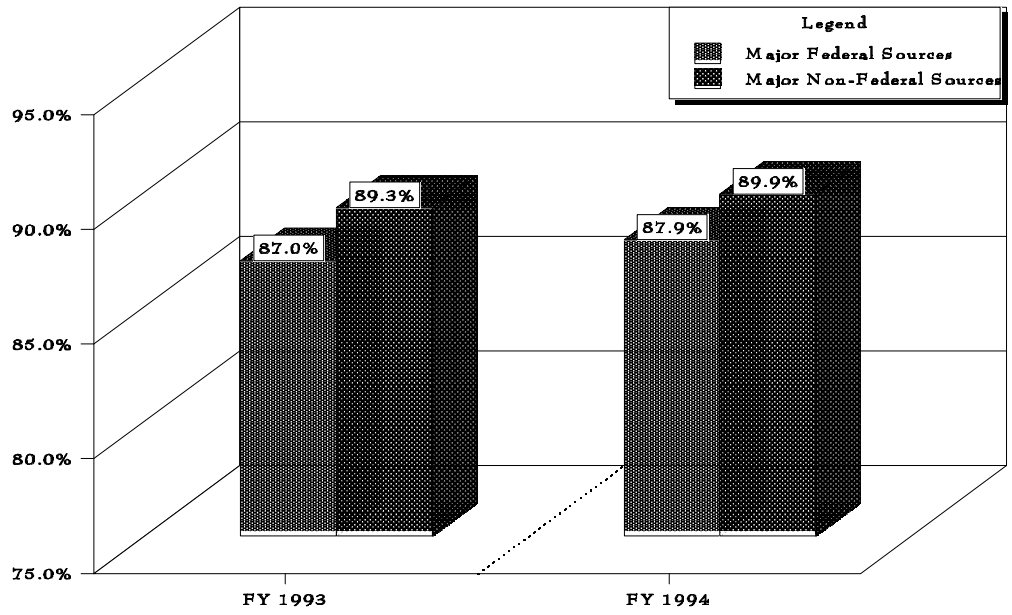


CAA Violations: Compliance Rates

Under the CAA, Federal facilities may be subject to compliance requirements under multiple programs (e.g., NAAQS and NSPS). A major source found to be in compliance with the provisions of one program, yet out of compliance with those of another, is considered to be out of compliance. As shown in Exhibit III - 30, during FY 1993 and FY 1994, Federal facilities experienced slightly lower compliance rates than the rest of the regulated community. CAA compliance rates for the same two years for major non-Federal sources were 89.3 and 89.9 percent, respectively.

Exhibit III - 30

CAA Compliance Rates for Major Federal vs Major Non-Federal Sources



As shown in Exhibit III - 31, compliance rates for major Federal sources remained fairly constant from FY 1993 to FY 1994. Approximately 87 percent of Federal sources remained in compliance with all applicable provisions of the CAA. Sources identified as "unknown" indicate that EPA or the State was unable to determine the compliance status of the source due to a lack of data, malfunctioning monitoring equipment, or other reason. Note that for compliance monitoring purposes, nine out of the FY 1994 Federal universe of 356 sources and eight out of the FY 1993 Federal universe of 340 sources were not counted due to a lack of applicable State regulations against which to assess compliance.

Exhibit III - 31

CAA Compliance Rates at Federal Facilities

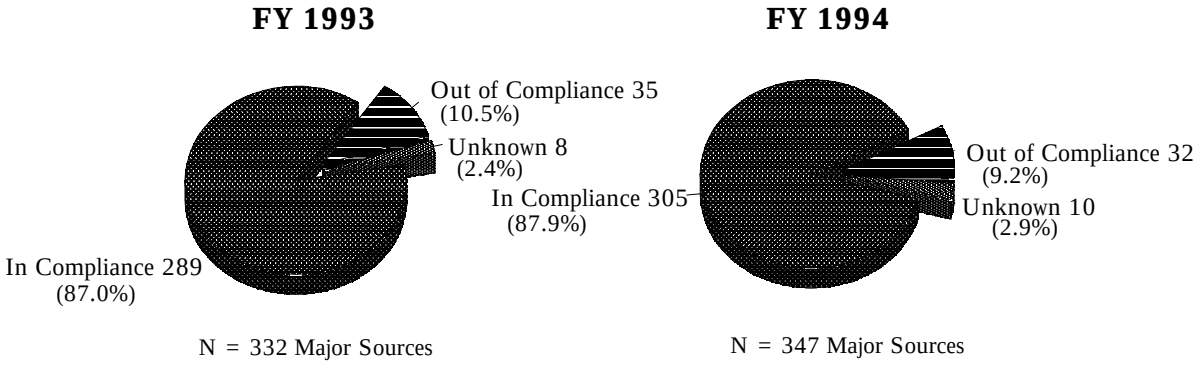


Exhibit III - 32 presents CAA compliance data across agencies for FY 1993 and FY 1994. DOD compliance rates were higher than both DOE and CFA compliance rates for both years, particularly in FY 1994. CFA and DOE compliance rates both decreased from approximately 85 percent in FY 1993 to approximately 78 percent in FY 1994.

Exhibit III - 32

CAA Compliance Rates Across Agencies

Agency	In Compliance	Out of Compliance	Unknown	Total
FY 1993				
DOD	192 (88.5)	22 (10.1%)	3 (1.4%)	217
CFAs	80 (84.2%)	12 (12.6%)	3 (3.1%)	95
DOE	17 (85.0%)	1 (5.0%)	2 (10%)	20
FY 1994				
DOD	210 (93.3%)	15 (6.7%)	0 (0.0%)	225
CFAs	81 (77.9%)	14 (13.5%)	9 (8.7%)	104
DOE	14 (77.8%)	3 (16.7%)	1 (5.6%)	18

CAA Enforcement

During FY 1993 and FY 1994, EPA and States issued NOVs to 14 and 18 Federal facilities, respectively, for failure to comply with provisions of the CAA. Noncompliance may involve violations of emissions standards, procedural requirements, and/or failure to meet established compliance schedules. As shown in Exhibit III - 33, the majority of NOVs were issued against DOD facilities. In addition, the distribution of enforcement actions for both years was fairly consistent with the level of inspection activities (Exhibit III - 29)

Although relative compliance rates were highest among DOD facilities (see Exhibit III - 32), because they comprise a much larger portion of the universe of Federal facilities, DOD facilities still tend to receive the majority of the enforcement actions.

Exhibit III - 33

CAA Enforcement Actions by Agency

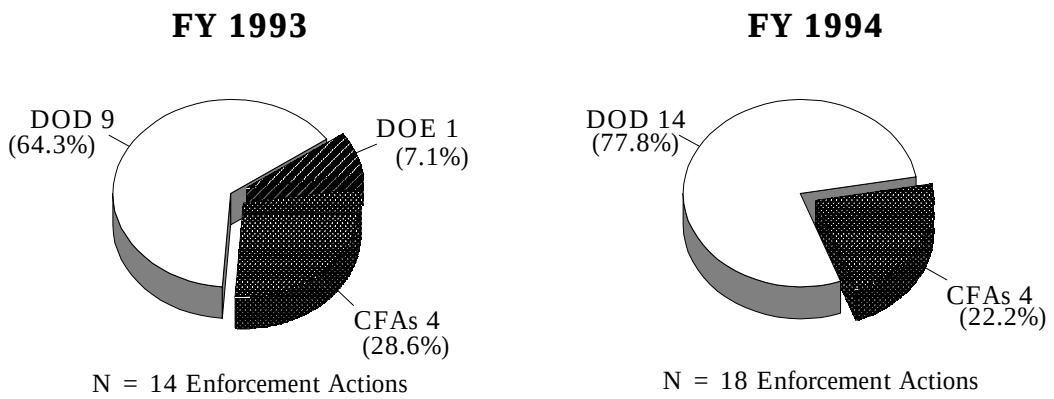
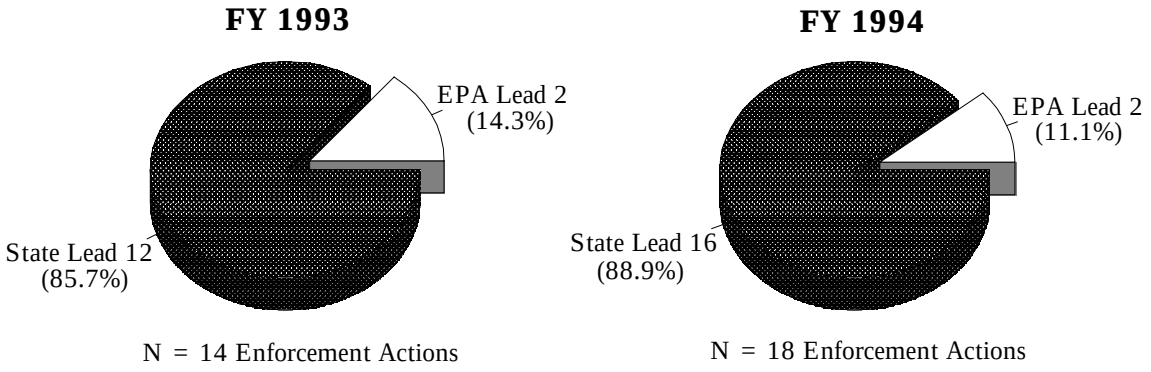


Exhibit III - 34 shows that during FY 1993 and FY 1994, States typically played a lead role on most enforcement actions. In addition, the State share of enforcement actions increased slightly over the same period.

Exhibit III - 34

CAA Enforcement Leads



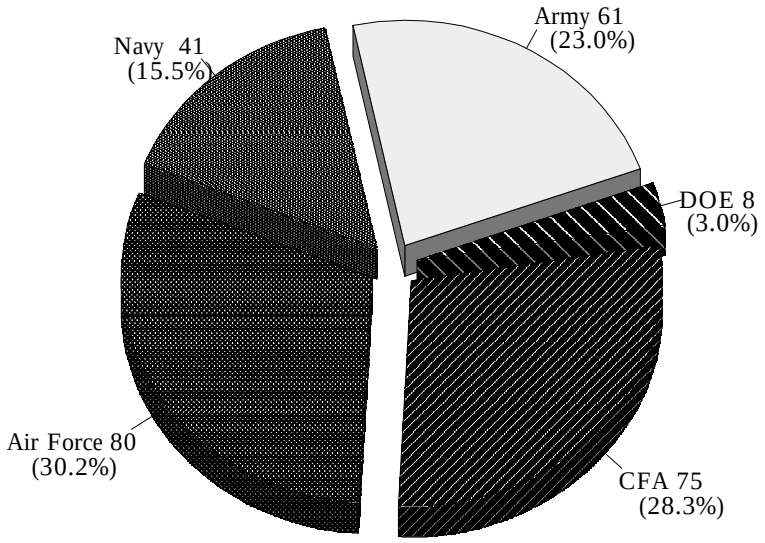
Asbestos Abatement at Federal Facilities

Due to the significant potential health hazards posed by asbestos abatement activities (i.e., removal, encapsulation), as well as the ubiquitous nature of asbestos in buildings constructed during the first half of this century, the asbestos NESHAP program has particular relevance for Federal facility compliance. Under the program, facilities reporting planned asbestos abatement activities may be subject to inspections to ensure the use of proper equipment and procedures.

During the period from the first quarter of FY 1993 to the fourth quarter of FY 1994, 275 Federal facilities provided 1,508 notifications of planned asbestos abatement activities. Exhibit III - 35 shows the distribution of reporting facilities according to agency. Collectively, DOD facilities outnumber all other reporting facilities by more than a two-to-one margin, with Air Force installations comprising the largest share among DOD facilities.

Exhibit III - 35

Federal Facilities Reporting Under Asbestos NESHAP



N = 265 Facilities

Based on these notifications, EPA and the States conducted 430 inspections, with the vast majority (95.8 percent) being led by State authorities. The level of inspection activity decreased only slightly (less than 9.0 percent), from 225 inspections in FY 1993 to 205 in FY 1994. Exhibit III - 36 shows the number of inspections, violations, and enforcement actions for both years.

Exhibit III - 36

Asbestos NESHAP Program Statistics

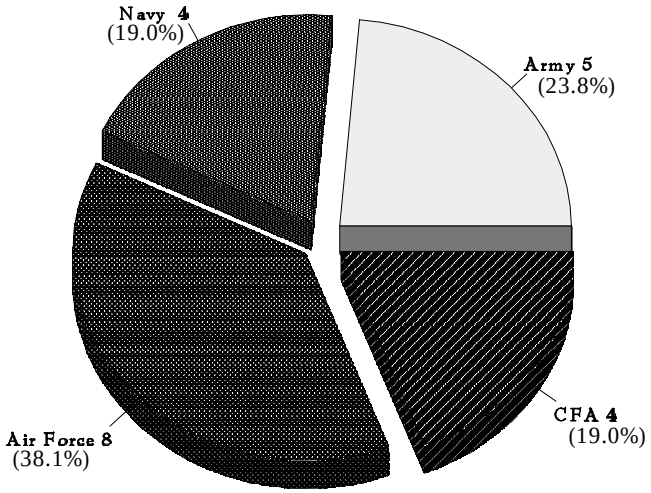
Year	Inspections	Violations		Enforcement Actions		
		Substantive	Notification	Warning	NOV	Order
FY 1993	225	1	8	4	5	--
FY 1994	205	6	6	5	5	2

Only a very small portion of inspections of asbestos abatement activity result in any violations (4.0 percent in FY 1993 and 5.8 percent in FY 1994). Violations are classified either as notification deficiencies (i.e., minor violations) or substantive violations (i.e., failure to follow

proper abatement procedures). In FY 1993, nearly 90 percent of violations were notification deficiencies, while in FY 1994, the shares between substantive violations and notification deficiencies was equal. In addition, enforcement actions taken to address these violations were distributed fairly consistently in FY 1993 and FY 1994. In both years, the number of warnings and NOVs were roughly the same; however, there were two administrative orders issued in FY 1994, both in response to substantive violations. Exhibit III - 37 shows how these violations were distributed according to agency.

Exhibit III - 37

1993-1994 Asbestos NESHAP Violations at Federal Facilities



N = 21 Violations

Documentation for Exhibits in this Section

Exhibit Title	Information Source	Date of Data Pull	Comments
CAA Major Federal Sources by Agency	AIRS	02/14/95	--
CAA Inspection Leads	AIRS	02/14/95	--
CAA Inspections According to Agency	AIRS	02/14/95	--
CAA Compliance Rates for Major Federal Sources vs All Major Sources	AIRS	02/14/95	Compliance data for all major sources pulled on 07/13/95
CAA Compliance Rates	AIRS	02/14/95	--
CAA Compliance Rates Across Agencies	AIRS	02/14/95	--
CAA Enforcement Actions by Agency	AIRS	02/14/95	--
CAA Enforcement Leads	AIRS	02/14/95	--
Federal Facilities Reporting Under Asbestos NESHAP	NARS	02/13/95	--
Asbestos NESHAP Program Statistics	NARS	02/13/95	--
Asbestos NESHAP Violations	NARS	02/13/95	--

TOXIC SUBSTANCES CONTROL ACT

The purpose of TSCA is to protect human health and the environment by requiring that specific chemicals be tested and that their processing and use be controlled or restricted as appropriate. To achieve this objective, TSCA authorizes EPA to:

- Gather certain kinds of basic information on chemical risks from entities that manufacture or process chemicals;
- Require companies to test selected existing chemicals for toxic effects;
- Review most new chemicals before they are allowed to be manufactured and distributed; and
- Prevent unreasonable risks by selecting control actions ranging from hazard warning labels to the outright ban on the manufacture or use of certain chemicals.

The control actions that may be taken by EPA under TSCA cover the manufacture, use, distribution in commerce, and disposal of chemical substances and mixtures.

Applicability of TSCA to Federal Facilities

Unlike other Federal statutes such as RCRA, TSCA does not specifically address Federal facility responsibilities. However, there are many provisions that affect Federal facilities including testing, reporting and information retention requirements, inspections, and provisions allowing civil suits against Federal facilities violating TSCA.

Definitions of Important Compliance Terms -- TSCA

Significant Noncompliance	A violation under TSCA, for which the level enforcement action is, at a minimum, an administrative complaint in accordance with the appropriate enforcement response policy (ERP).

TSCA Universe

TSCA is not a permit-based compliance program (e.g., RCRA, CWA/NPDES), nor does TSCA involve any formal listing process whereby facilities meeting certain criteria are identified and tracked until they no longer meet these criteria (e.g., CERCLA, BRAC). In addition, the

number and identity of facilities subject to TSCA may change substantially from year to year. As a result, there is no readily definable "TSCA universe." All facilities subject to TSCA are identified and targeted for inspections through a variety of less formal means, including: self-reporting by entities of their intent to manufacture toxic substances, third-party requests/complaints, and EPA/State evaluation of publicly available data (e.g., annual reports).

TSCA Inspections

The number of TSCA inspections conducted at Federal facilities decreased by approximately 13 percent from FY 1993 to FY 1994 (46 to 40). As shown in Exhibit III - 38, the distribution of these inspections according to agencies changed slightly over the same period. DOD's share of TSCA inspections declined. The level of inspection activity at CFA facilities also showed a modest increase.

Exhibit III - 38

TSCA Inspections by Agency

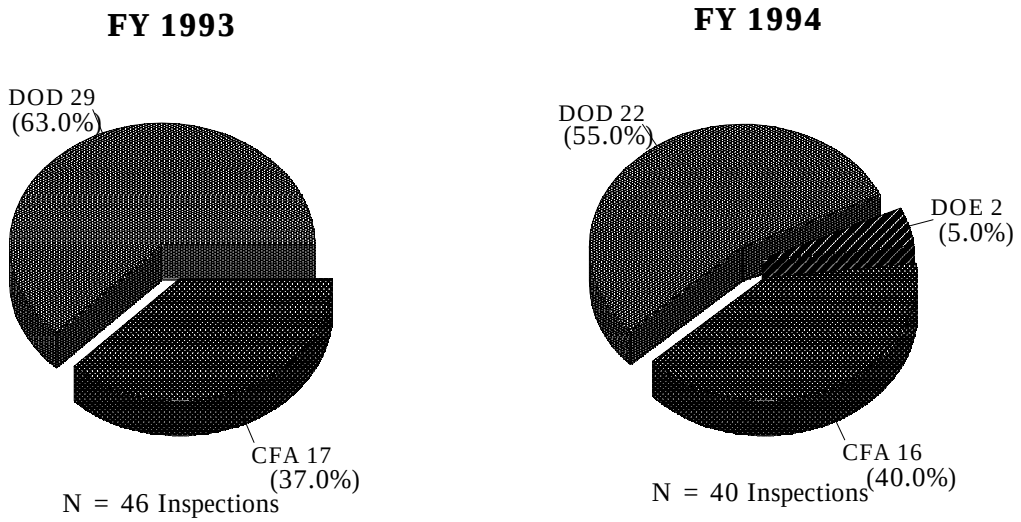
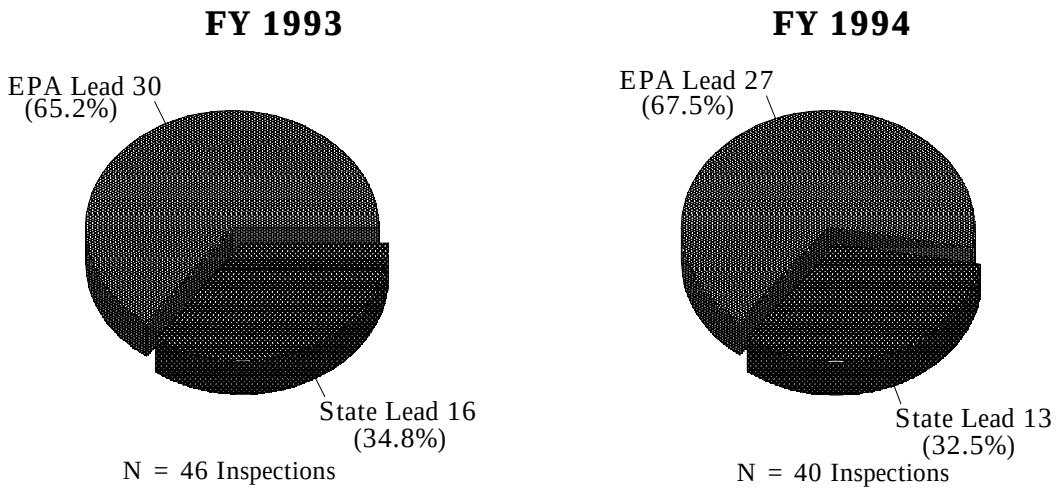


Exhibit III - 39 reveals that TSCA inspection leads remained virtually unchanged during FY 1993 and FY 1994. For both years, EPA took the lead on approximately two-thirds of all TSCA inspections at Federal facilities, while States took the lead on the remaining one-third.

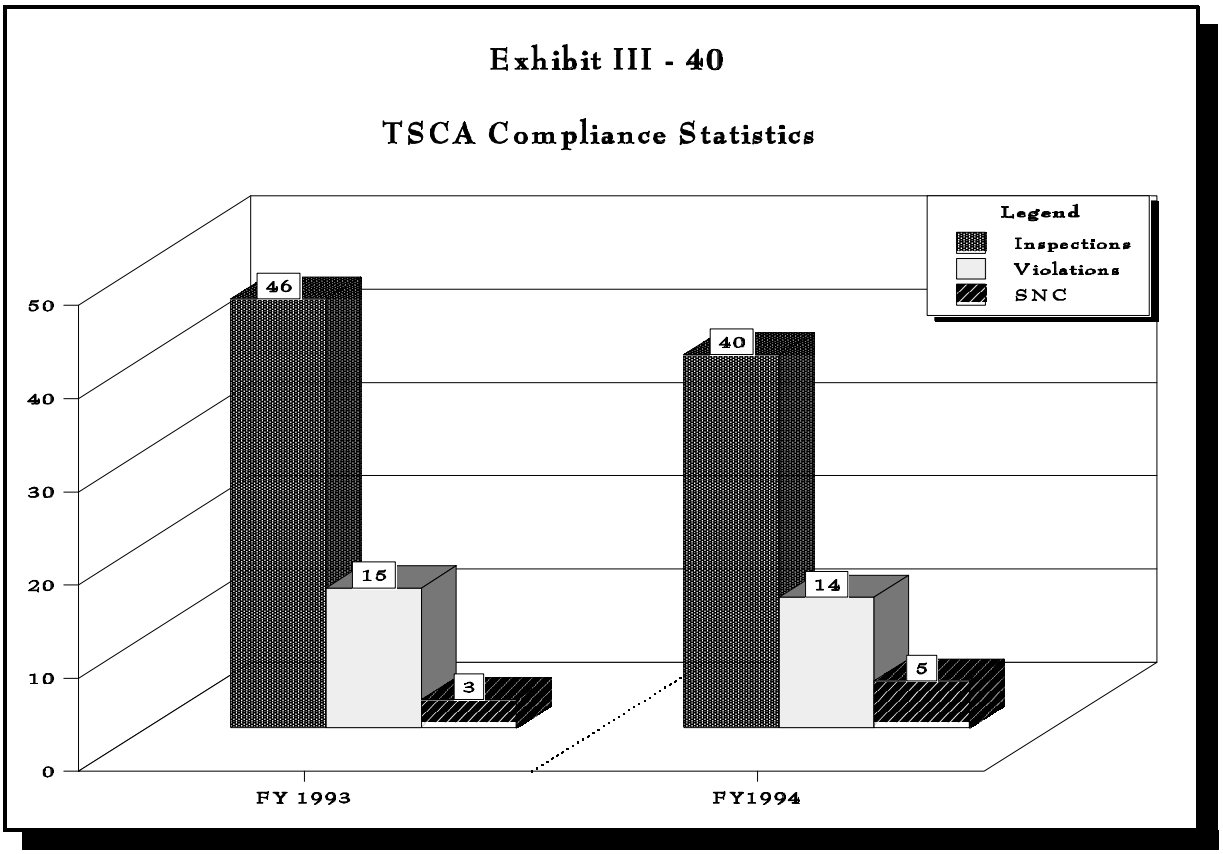
Exhibit III - 39

TSCA Inspection Leads



TSCA Compliance

Exhibit III - 40 shows that the percentage of inspected Federal facilities cited for violations of TSCA increased slightly from approximately 32 percent (15 of 46) in FY 1993 to 35 percent (14 of 40) in FY 1994. The number of facilities in SNC of TSCA decreased from 17 in FY 1993 to 15 in FY 1994. It is important to note, however, that many of these facilities were determined to be in SNC prior to FY 1993. These facilities remain in SNC, in some instances for more than three years, until their cases are either closed or withdrawn. The actual number of Federal facilities that were both inspected <u>and</u> found to be in SNC during FY 1993 or FY 1994 were three and five, respectively.



TSCA Enforcement

By definition (see above), all Federal facilities found in SNC with TSCA were subject to formal enforcement actions. The type of action taken is referred to as a Notice of Noncompliance (NON). Under TSCA, Federal facilities, unlike commercial facilities, are not subject to penalties.

Documentation for Exhibits in this Section

Exhibit Title	Information Source	Date of Data Pull	Comments
TSCA Inspections by Agency	NCDB	05/26/95	--
TSCA Inspection Leads	NCDB	0.002	--
TSCA Compliance Statistics	NCDB	05/26/95	--

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FEDERAL INSECTICIDE, FUNGICIDE, AND RODENTICIDE ACT

FIFRA provides EPA with the authority to oversee the registration and use of pesticides and other similar products intended to kill or control insects, rodents, weeds, and other living organisms. FIFRA enables EPA to achieve the following goals:

- Evaluate the risks posed by pesticides through a registration system;
- Classify and certify pesticides for specific uses and thus control exposure;
- Suspend, cancel, or restrict pesticides that pose threats to the environment; and
- Enforce requirements through inspections, labeling notices, and regulation by State authorities.

Under FIFRA, a manufacturer wishing to make a new pesticide must register it with EPA and submit extensive test data, information on proposed uses, and suggested labeling in support of the application for registration. In addition, the statute enables EPA to ban, control.or otherwise restrict the manufacture, use, import, or disposal of a pesticide.

Application of FIFRA to Federal Facilities

Neither FIFRA nor its implementing regulations specifically address the role of Federal facilities under the statute, with the exception of certification requirements. Federal facilities may be subject to inspections and, if appropriate, enforcement actions under FIFRA.

Definitions of Important Compliance Terms -- FIFRA

Significant Noncompliance	A violation under FIFRA, for which the level of enforcement action is, at a minimum, an administrative complaint in accordance with the approporiate enforcement response policy (ERP).

FIFRA Universe

Like TSCA, FIFRA does not have a readily identifiable universe of facilities based on permits. Moreover, many of the activities that potentially subject an entity to FIFRA do not occur at a fixed location (e.g., a single firm spraying pesticides, herbicides, etc. on agricultural land located throughout a wide geographical area). Therefore, targeting of inspections and

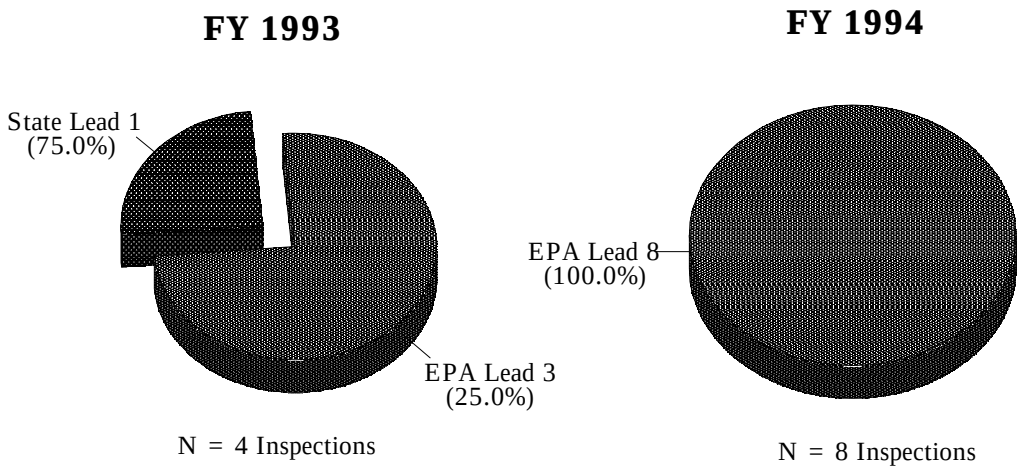
subsequent enforcement activity at FIFRA "facilities" is accomplished through more informal means (e.g., self-reporting, third-party complaints, public record reviews).

FIFRA Inspections

The number of FIFRA inspections conducted at Federal facilities is relatively small; only 12 were conducted during FY 1993 and FY 1994. Due to the small number of inspections, minor changes in the absolute number of inspections can have substantial effects in percentage terms. This caveat aside, the number of FIFRA inspections conducted at Federal facilities doubled from FY 1993 to FY 1994 (from 4 to 8). As shown in Exhibit III - 41, EPA took the lead on most of these inspections.

Exhibit III - 41

FIFRA Inspections



FIFRA Compliance: Violations and SNC

EPA cited only two Federal facilities for FIFRA violations in FY 1993 -- there were no Federal facility violations of FIFRA in FY 1994. No Federal facilities were found in SNC during either year because violations did not trigger an enforcement response at an administrative complaint level.

FIFRA Enforcement

In FY 1993, EPA issued a field citation for FIFRA violations. In addition, during a multi-media inspection, a second Federal facility received a Notice of Violation (NOV) addressing violations under four separate statutes (CAA, CWA, TSCA, and FIFRA). Under FIFRA, Federal facilities, unlike commercial facilities, are not subject to penalties.

Documentation for Exhibits in this Section

Exhibit Title	Information Source	Date of Data Pull	Comments
FIFRA Inspections	NCDB	05/26/95	--

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EMERGENCY PLANNING AND COMMUNITY RIGHT - TO - KNOW ACT

The Toxics Release Inventory (TRI), established under the Emergency Planning and Community Right-to-Know Act of 1986, is a publicly available data base containing specific chemical release and transfer information from manufacturing facilities throughout the United States. The TRI is intended to promote planning for chemical emergencies and to provide information to the public regarding the presence and release of toxic and hazardous chemicals in their communities. In addition, following the passage of the Pollution Prevention Act in 1990, the TRI was expanded to include reporting of additional waste management and pollution prevention activities.

Manufacturing facilities (i.e., facilities in Standard Industrial Classification codes 20 - 39) having ten or more full-time employees and exceeding certain chemical use thresholds are required to report under the TRI. The threshold for manufacturing and processing of listed chemicals is 25,000 pounds per year for each chemical, and 10,000 pounds per year for each listed chemical for other uses.

Reports for each calendar year are submitted to EPA by July 1 of the following year. After completing data entry and quality assurance activities, EPA makes the data available to the public in a printed report, in a computerized data base, and through a variety of other information products (e.g., CD-ROM). These products are usually released during the early spring of the year following the submission of data; thus, the information contained in this report, which is derived from data released in March of 1995, presents TRI reporting activity for calendar year 1993.

Applicability of TRI to Federal Facilities

In August of 1993, President Clinton signed Executive Order 12856, which required Federal facilities to begin submitting TRI reports for calendar year 1994 activities.[5] Federal facilities meeting the TRI chemical thresholds are required to file TRI reports, whether or not they are engaged in manufacturing. The first reports were due to EPA on or before July 1, 1995. This Report does not contain TRI data for all Federal facilities because 1994 data are not released until early 1996.

GOCO Federal facilities, however, are required to submit TRI reports, irrespective of the Executive Order. While not comprehensive, the GOCO data submissions may be generally indicative of the chemicals present and released at Federal facilities, the distribution of releases and off-site transfers by type, and the relative level of prevention and management of TRI chemicals in waste.

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[5] TRI data are submitted on a calender year rather than a fiscal year basis.

Definitions of Important Terms -- TRI	
Fugitive Air Sources	Non-point emissions or releases that are not in a confined directional flow (e.g., releases from equipment, evaporative losses from surface impoundments and spills; and releases from building ventilation systems).
Off-Site Transfer	A transfer (excluding releases) of toxic chemicals in wastes (e.g., for recycling, energy recovery, treatment, or disposal) to a facility that is geographically or physically separate from the facility reporting under the TRI.
Release	An on-site discharge (excluding off-site transfers) of a toxic chemical to the environment, including emissions to air, discharges to bodies of water, releases at the facility to land, and contained disposal into underground injection wells.
Release to Land	Releases to land occur within the boundaries of the reporting facility and include disposal of toxic chemicals in waste to a landfill, land treatment area, surface impoundment, waste pile, or other land disposal (e.g., leaks).
Release to Water	Releases to water include disharges to bodies of water from contained sources (e.g., pipes) and runoff.
Stack Air Sources	Point air emissions or releases that are in a confined air stream, particularly releases through stacks, vents, ducts, pipes, lab hoods, or other confined air streams.
Underground Injection	The injection of toxic chemicals into any type of well

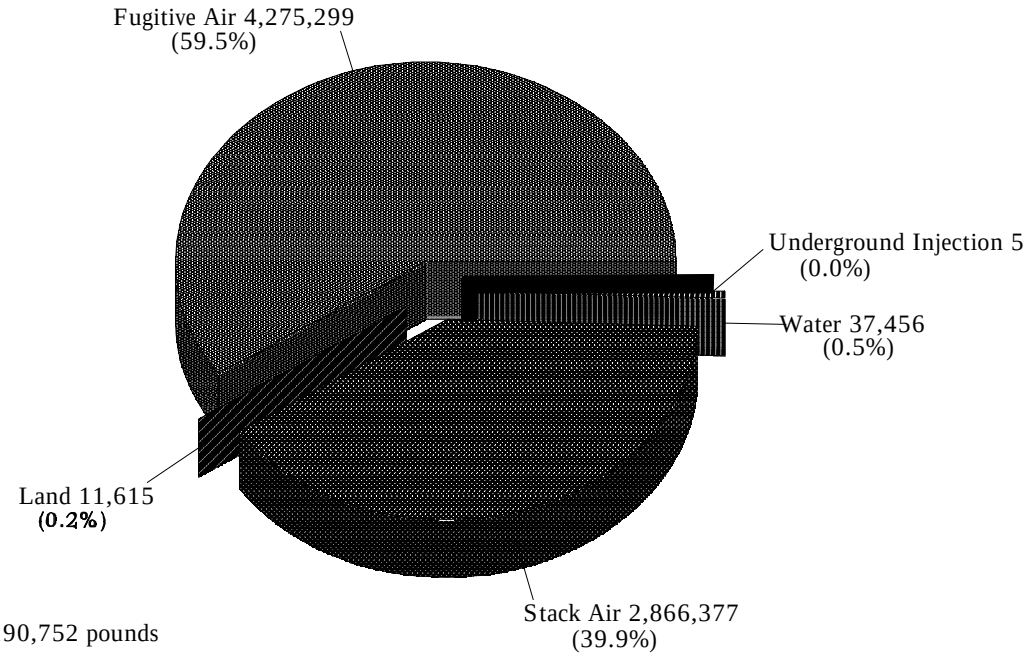
TRI Releases at Reporting GOCO Facilities

GOCOs reported releases of approximately 7.2 million pounds of TRI chemicals in 1993, nearly all of which (99.4 percent) consisted of releases to the air. Releases to air from fugitive sources outpaced stack air emissions by nearly a five-to-three margin. Exhibit III - 42 presents the distribution of releases according to various environmental media.

Of the releases to environmental media other than air, most (76.3 percent) were accounted for by releases to water, followed by releases to land (23.7 percent). GOCO facilities released only 5 pounds of TRI chemicals via underground injection during 1993.

Exhibit III - 42

TRI Releases by Environmental Media at GOCOs in pounds (1993)



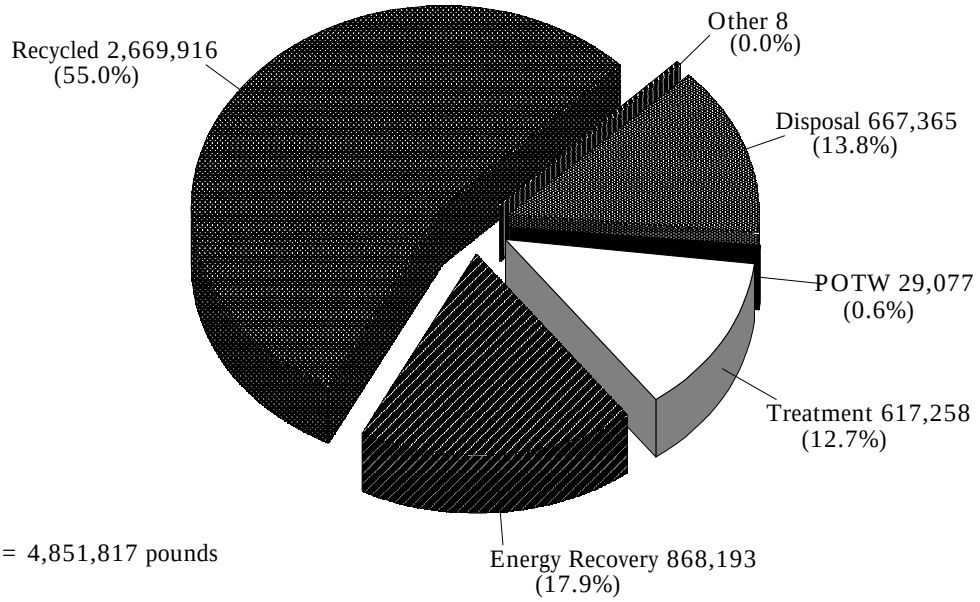
Relative to the entire universe of facilities that report under the TRI program, GOCO facilities reported substantially smaller percentages of releases to environmental media other than air. For example, in 1993,underground injection, releases to land, and releases to water comprised 20.5 percent, 10.3 percent, and 9.7 percent, respectively, of reported releases at all TRI facilities.

Off-Site Transfers at Reporting GOCO Facilities

In 1993, GOCO facilities transferred more than 4.8 million pounds of TRI chemicals to POTWs and other off-site locations for the purposes of recycling, energy recovery, treatment, or disposal. Exhibit III - 43 presents these off-site transfers according to waste management activity.

Exhibit III - 43

TRI Off-Site Transfers at GOCO Facilities in pounds (1993)



Off-site transfers to recycling facilities were the most common at GOCO facilities in 1993 (55.0 percent), followed by energy recovery (17.9 percent), disposal, and treatment (13.8 and 12.7 percent, respectively). Transfers of wastewater for treatment was fairly uncommon at GOCO facilities -- transfers to POTWs comprised less than 1.0 percent of the total in 1993.

The distribution of off-site transfers at GOCO facilities in 1993 closely resembles that for the entire universe of TRI reporting facilities. Transfers for recycling and energy recovery at all TRI facilities ranked first and second at 69.1 percent and 10.3 percent respectively. Similarly, the percent of transfers for disposal and treatment were very close (6.9 percent and 7.0 percent, respectively) although they comprised a considerably smaller portion of total off-site transfers at all facilities relative to GOCO facilities. Unlike GOCO facilities, however, off-site transfers to POTWs from all TRI facilities were more common, comprising nearly the same share (6.7 percent) as transfers for disposal and treatment.

Prevention and Management of TRI Chemicals in Waste

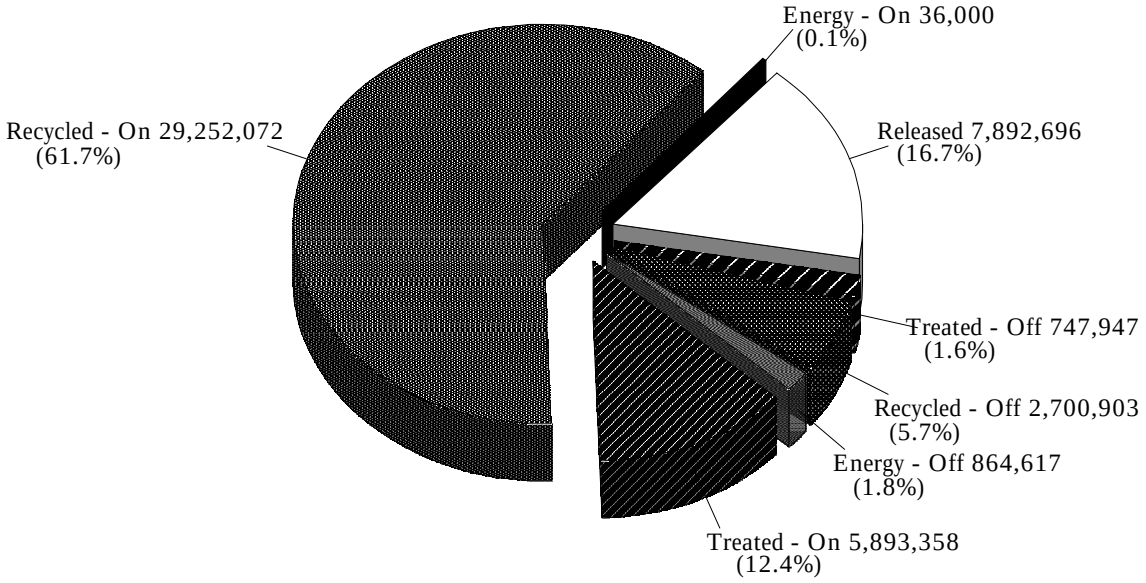
Most TRI chemicals present at GOCO facilities are not released or transferred off-site; the majority (in terms of total volume) are managed on-site. EPA tracks on-site waste

management of TRI chemicals as part of its responsibilities under the Pollution Prevention Act of 1990. Waste management, which lies one step above releases and off-site transfers on the pollution prevention hierarchy, involves recycling, combustion of waste for energy recovery, or treatment.

As shown in Exhibit III - 44, the quantity of TRI chemicals managed in waste that GOCO facilities reported as released in 1993 totaled just over 7.9 million pounds. Note that in the context of waste management reporting under the TRI program, the definition of "release" includes: fugitive and stack air emissions; releases at the facility to water, land, or underground injection wells; *and off-site transfers for disposal.* Other forms of off-site waste management in 1993 accounted for an additional 4.3 million pounds of TRI chemicals. Thus, all waste managed off-site or released into the environment accounted for slightly more than one-fourth of all waste reported under the TRI program at GOCO facilities. In contrast, on-site recycling accounted for approximately 61.7 percent of all TRI chemicals managed in waste at GOCO facilities, with on-site treatment contributing an additional 12.4 percent.

Exhibit III - 44

TRI Chemicals Managed in Waste On-Site and Off-Site at GOCO Facilities in pounds (1993)



N = 47,387,593 pounds

In 1993, the entire universe of TRI facilities recycled a substantially smaller portion of their TRI chemicals managed in waste (49.3 percent for on- and off-site recycling) than did GOCO facilities. Similarly, releases of waste at all TRI facilities accounted for a much smaller

share of total waste management (9.6 percent) relative to GOCOs. The percentage of TRI chemicals in waste subjected to on- and off-site treatment at all facilities was more than twice that of GOCO facilities in 1993.

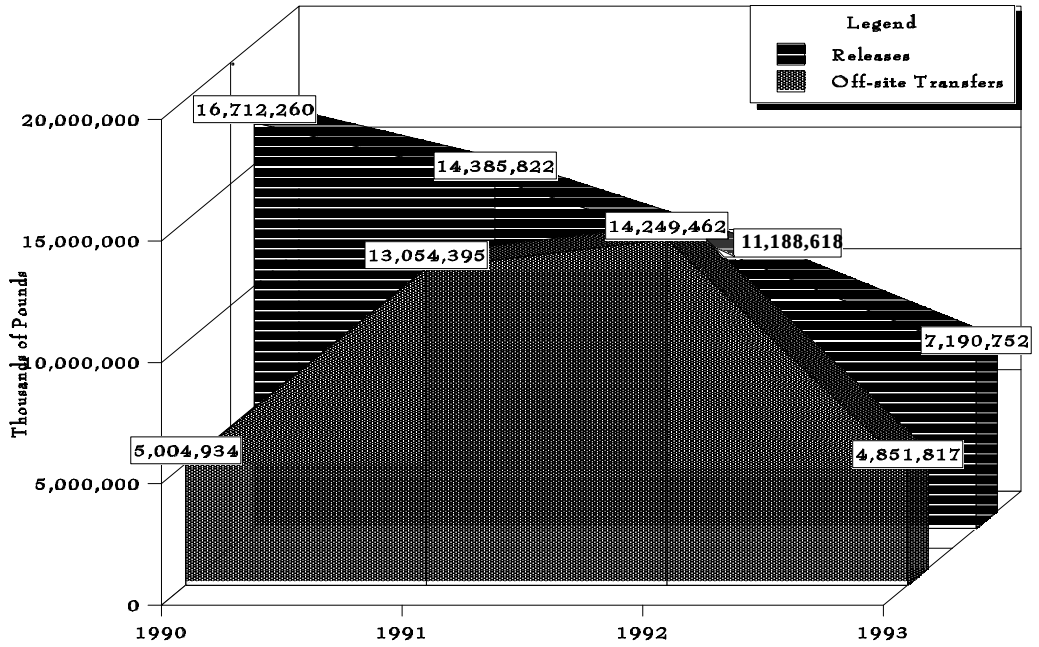
Trend Analysis of TRI Data at Reporting GOCO Facilities

As shown in Exhibit III - 45, total releases decreased by approximately 9.5 million pounds or 56.9 percent from 1990 to 1993. During the same period, the number of GOCOs reporting under the TRI decreased from 66 to 51, a 21.7 percent decline. However, the decline in releases cannot be attributed solely to a decrease in the number of reporting facilities. Comparing totals for only those GOCO facilities that reported releases in both 1990 and 1993, the total quantity of releases still declined by 51.9 percent.

Total off-site transfers of TRI chemicals decreased slightly from approximately 5.0 million pounds in 1990 to less than 4.9 million pounds in 1993, a 2.0 percent decline. It is important to note, however, that off-site transfers for recycling or energy recovery were not required to be reported before 1991. Consequently, the 1990 off-site transfer figure most likely understates the actual level of transfers occuring at GOCO facilities. Relative to 1991 the total quantity of TRI chemicals transferred off-site declined from more than 13 million pounds to nearly five million, in just two years. This represents a decrease of 62.8 percent.

Exhibit III - 45

TRI Releases and Off-site Transfers at GOCOs (1990 -1993)



Documentation for Exhibits in this Section

Exhibit Title	Information Source	Date of Data Pull	Comments
TRI Releases by Environmental Media	TRIS	09/15/95	--
TRI Off-Site Transfers at GOCO Facilities	TRIS	09/15/95	--
TRI Chemicals Managed in Waste at GOCO Facilities	TRIS	09/15/95	--
TRI Releases and Off-Site Transfers at GOCO Facilities	TRIS	09/15/95	--

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COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT

CERCLA authorizes the Federal government to respond to situations involving past disposal of hazardous substances. The primary emphasis of CERCLA is to protect human health and the environment through the cleanup of hazardous waste sites. Under CERCLA, parties causing or contributing to contamination are held responsible for cleaning up contaminated sites.

Applicability of CERCLA to Federal Facilities

Section 120 of CERCLA states that Federal facilities must comply with all applicable provisions of CERCLA to the same extent as a private entity. To promote compliance, CERCLA also contains broad waivers of sovereign immunity to permit individuals and States to sue Federal agencies for recovery of their response costs and to bring citizen suits if an agency is not adhering to a CERCLA mandate.

Definitions of Important Terms -- CERCLA

Site	A specific location at a Federal facility from which a release of hazardous substances has occured. A facility may encompass one site or multiple sites.
Hazard Ranking System	The method used by EPA to evaluate the relative potential of hazardous substance releases to cause health or safety problems, or ecological or environmental damage.
Interagency Agreement (IAG)	A binding cleanup agreements between EPA, Federal agencies, and, in some cases, States. IAGs define roles, responsibilities, and milestones, trigger EPA oversight of cleanup activities, and provide opportunities for public involvement.
National Priorities List (NPL)	EPA's list of the highest priority sites for cleanup. Sites are proposed for the NPL based on their score using the Hazard Ranking System.
Record of Decision	A public document that identifies a selected cleanup remedy for a site and explains the rationale for its selection.

Federal Agency Hazardous Waste Compliance Docket

Section 120(c) of CERCLA requires EPA to establish a list of Federal facilities that report hazardous waste activity under RCRA or §103 of CERCLA. The list, known as the Federal Agency Hazardous Waste Compliance Docket, is a key component in identifying potentially contaminated sites at Federal facilities. The docket represents a regularly updated inventory of facilities that may be subject to more advanced stages of the CERCLA cleanup process. All facilities on the docket will at least receive a Preliminary Assessment (see Site Screening and Assessment) to determine if there is a need for further action.

Since the Docket is the vehicle for tracking progress and documenting final dispositions, a facility remains on the docket except when:

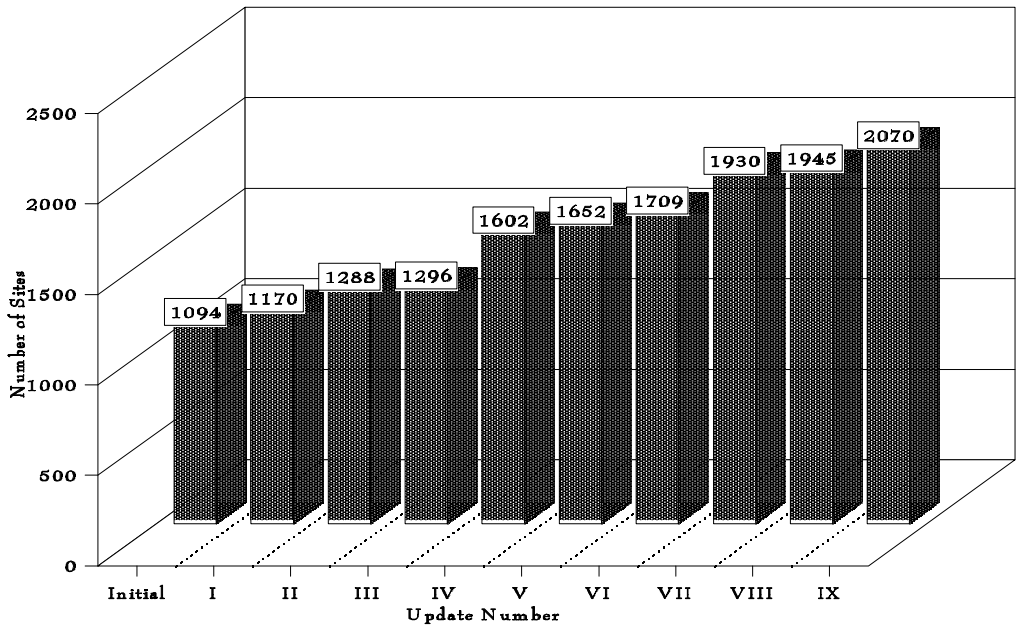
- The facility is a small quantity generator;
- The facility is not Federally owned or operated;
- It is listed more than once (only redundant listings are removed);
- It fails to meet the definition of a facility; or
- No hazardous waste is generated at the facility.

In addition, a facility that has been removed from the docket can be relisted at any time if its status changes.

Exhibits III - 46 through III - 48 illustrate the number of sites at Federal facilities listed on the docket and the agencies that own and manage these facilities. As shown in Exhibit III - 46, from its inception in February of 1988 to the most recent update in March of 1995, the number of sites at Federal facilities listed on the docket has nearly doubled, from 1,094 to 2,070.

Exhibit III - 46

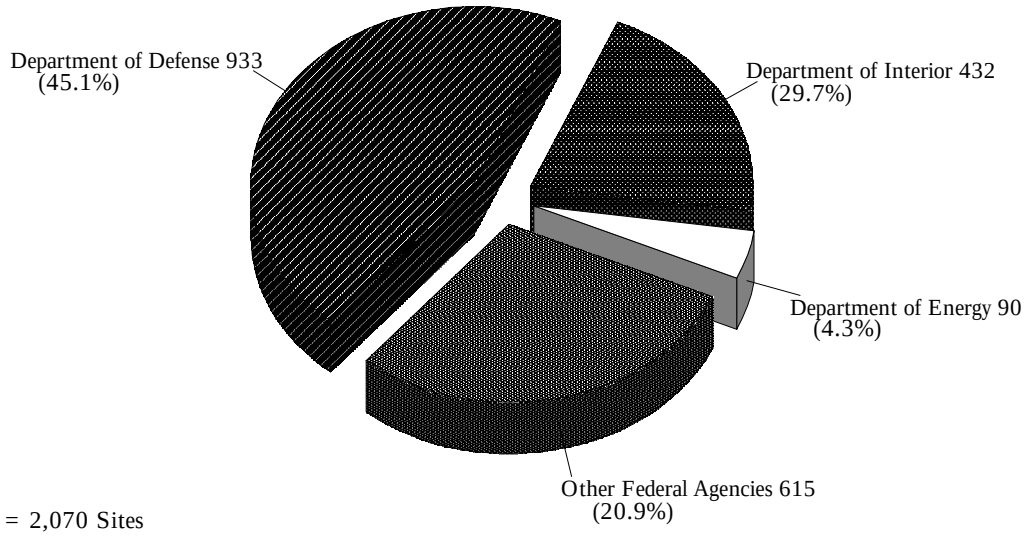
Total Number of Federal Facility Sites Listed on the Docket



As shown in Exhibit III - 47, the 933 DOD sites comprise the largest single share (45.1 percent) of sites on the docket. Other agencies with substantial numbers of sites include the Department of the Interior (DOI -- 432 sites or 20.9 percent) and DOE (90 sites or 4.3 percent). Together, DOI sites combined with all other CFA sites comprise just over half (50.6 percent) of sites listed on the docket.

Exhibit III - 47

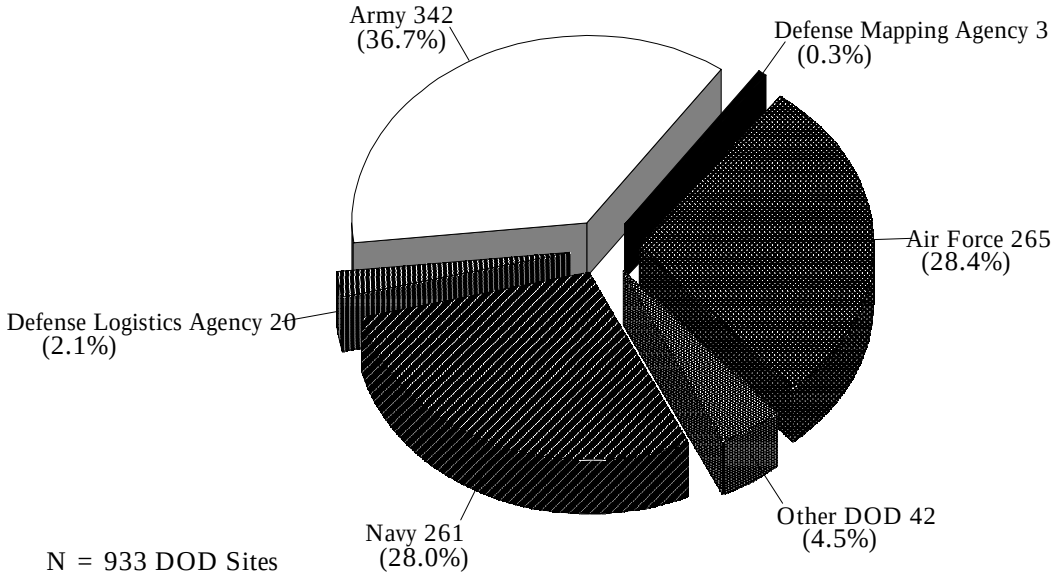
Federal Facility Sites Listed on the Docket by Agency



As shown in Exhibit III - 48, the Navy, Army, and Air Force owned or managed similar shares (between 28 and 36 percent) of the total number of DOD sites presently listed on the docket.

Exhibit III - 48

DOD Sites on the Docket by Agency



Site Screening and Assessment

The first phase of assessment involves identifying, evaluating, and ranking hazardous waste sites. There are at least three steps in this phase: Preliminary Assessment (PA), Site Inspection (SI), and Expanded Site Inspection (ESI).

The PA is first step an agency takes in the site screening and assessment phase. It involves a review of all available reports and documentation about the site and a site visit. At the conclusion of a PA, a projected numerical rating of potential hazards is developed which serves as a way to screen out sites early in the process. These are sites where no further action is planned (NFRAP). The PA also provides data for subsequent priority-setting. Sites considered to present an immediate danger to human health and the environment or that can be quickly remediated may be referred for Removal Action. The remaining sites move on to the SI stage in the site assessment process.

The SI is designed to collect more extensive information by conducting a site visit and collecting samples to further define and characterize the problems at a site. Sites are scored using the Hazard Ranking System (HRS). The HRS enables EPA to assess the risk posed by sites in the CERCLIS data base, and to determine which sites should be listed on the National Priorities List. Sites receiving a score of 28.5 or above are listed on the NPL. ESIs are sometimes required to provide additional data to support scoring of a site and to provide additional data to support an anticipated Remedial Investigation.

Remedial Action Process

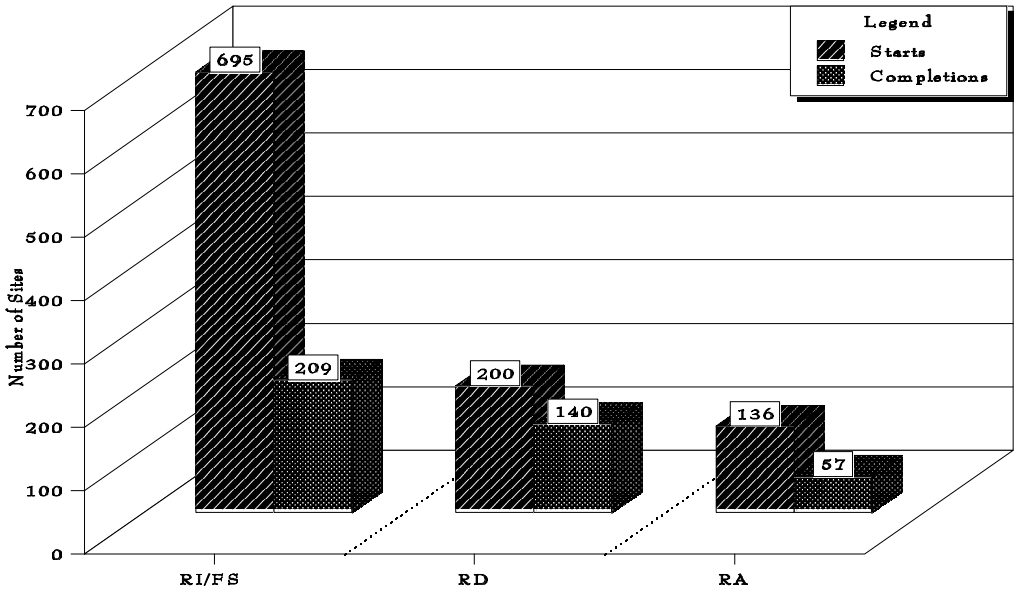
The first phase of the remedial action process is the Remedial Investigation (RI) that defines the nature and extent of problems at a site and provides information needed to develop and evaluate cleanup alternatives. It requires a more detailed and comprehensive analysis than the initial site inspection. The Feasibility Study (FS) assists in this analysis by developing possible alternatives for cleanup and weighing the advantages and disadvantages of each approach. Once the cleanup alternatives are defined, the FS determines their effectiveness by examining each alternative according to specific criteria. A RI/FS may address all or a portion of the sites at a single Federal facility.

After all criteria have been examined and options weighed, a proposed approach to conduct cleanup is selected and is summarized in a proposal to the public. The proposed plan summarizes the process leading to the decision including the analysis of alternatives in the FS, the preferred alternative, and the rationale for that preference. The public is then given the opportunity to discuss issues related to the site in a public meeting. Interested parties may also submit oral and written comments during a 30-day public comment period. Once comments have been received and considered, a plan is selected and explained in the Record of Decision (ROD). The ROD describes the remedial action plan for a site, discusses the technical details of the plan, and provides the public with a consolidated source of information about the site.

The last three phases of the remedial action process are: Remedial Design (RD), Remedial Action (RA), and Operation and Maintenance (O&M). The RD stage involves developing technical plans and specifications for the RA phase as outlined in the ROD. When these plans and specifications are completed, the construction or RA phase begins. The O&M phase begins when the RA phase is complete and the plan is operational and functional. O&M activities are defined as those activities required for maintaining the effectiveness of the plan and/or monitoring site conditions to determine the occurrence of a new or recurring environmental threat. Monitoring air and ground water, inspecting and maintaining treatment equipment, and maintaining security measures (e.g. fencing and signs) are a few examples of O&M activities. Exhibit III - 49 shows the progress of Federal facilities through the Remedial Action "pipeline."

Exhibit III - 49

Cumulative Remedial Action Program Accomplishments for Federal Facility Sites (FY 1994)



As of FY 1994, 695 sites at Federal facilities had started the RI/FS phase. Of these, 30 percent (209 of 695) had signed RODs. More than 95 percent (200 of 209) of these sites had begun the RD phase. The remaining nine sites had either exited the pipeline at the completion of the RI/FS phase (i.e., a no-action ROD was signed) or were awaiting commencement of the RD phase. A portion of facilities presently undergoing an RI/FS could exit the pipeline upon completion of their RI/FS.

Of the sites beginning the RD phase, 70 percent (140 of 200) had completed the process and 97 percent (136 of 140) of these had initiated the RA phase. Approximately 42 percent (57

of 136) had completed the RA phase. In all, therefore, roughly eight percent (57 of 695) of sites at Federal facilities entering the pipeline had progressed through every stage of the remedial action process. It should be noted, however, that a number of sites at Federal facilities may not progress through the entire pipeline, because at an interim phase, EPA has determined that they no longer pose a significant threat to human health or the environment.

Removal Action Process

In contrast to a Remedial Action, which can take months or even years to implement and complete, a CERCLA removal action is an immediate, short term response taken to control direct threats to human health and the environment from a release or threatened release of a hazardous substance. The Federal agency with jurisdiction over the site will generally manage removal actions. There are three types of removals determined by the site screening and assessment and the urgency of the situation:

- ***Emergencies*** -- removals where the release, or threat of release, requires that onsite cleanup activities begin within hours of the lead agency's determination that a removal action is appropriate.

- ***Time-Critical*** -- removals where, based on the site evaluation, the lead agency determines that a removal action is appropriate and there are less than six months available before cleanup activities must begin.

- ***Non-Time Critical --*** removals where, based on the site evaluation, the lead agency determines that a removal action is appropriate and that there is a planning period of more than six months available before on-site activities must begin. The lead agency must undertake an Engineering Evaluation/Cost Analysis, or its equivalent, for non-time critical removals.

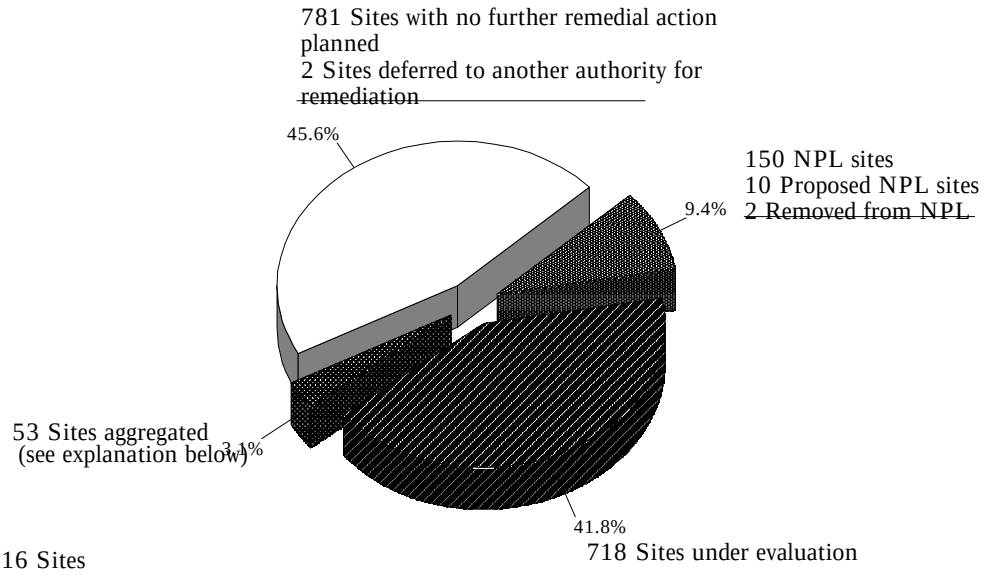
Removal actions may also be used to stabilize and mitigate the worst problems at NPL sites until the Remedial Action program can implement complete cleanups. Since removal actions are managed by Federal agencies with responsibility for the site, EPA does not track removal actions at Federal facilities in the CERCLIS data base (see below).

CERCLIS

The Comprehensive Environmental Response, Cleanup, and Liability Information System (CERCLIS) is the data base that serves as the official inventory of CERCLA sites and the primary system used to track CERCLA progress at all Federal facilities. Among other matters, CERCLIS tracks site assessment, remedial, enforcement, and financial information. At the end of FY 1994, there were 36, 881 non-Federal facilities listed in CERCLIS and 1,716 Federal facilities (4.7% of the CERCLIS universe). Exhibit III - 50 identifies the status of sites for Federal facilities listed in CERCLIS.

Exhibit III - 50

Federal Facility Sites Listed in CERCLIS (FY 1994)



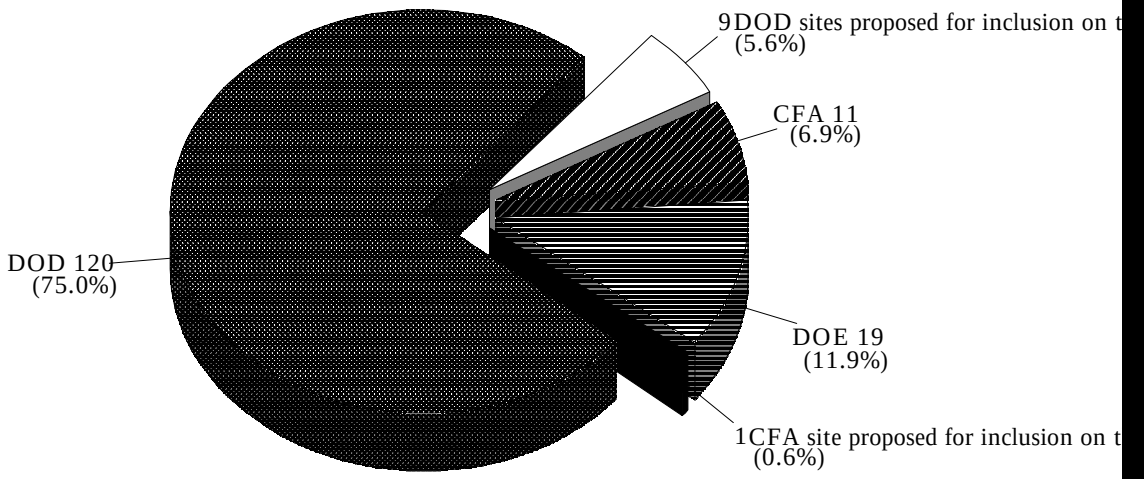
Of the approximately 1,700 Federal sites listed in CERCLIS as of FY 1994, roughly 10 percent are on the NPL. No further remedial action is required for nearly 46 percent and approximately 42 percent are presently under evaluation.

Approximately three percent of Federal sites have been combined with other sites on the NPL and are referred to as "aggregated." Once a site is aggregated, all of that site's activities are tracked as part of its new NPL parent site. The original site record is maintained in CERCLIS as an aggregated site for historical tracking purposes.

Exhibit III - 51 presents the status of sites on the NPL located at Federal facilities as of FY 1994.

Exhibit III - 51

Federal Facilities on the NPL (FY 1994)



N = 160 Facilities

Of the 160 Federal facility NPL sites, 129 or 80.6 percent are at DOD facilities. DOE sites make up 11.8 percent and all other Federal agencies comprise 7.5 percent of the total. Appendix I contains a complete inventory of Federal facilities on the NPL as of FY 1994.

CERCLA Enforcement

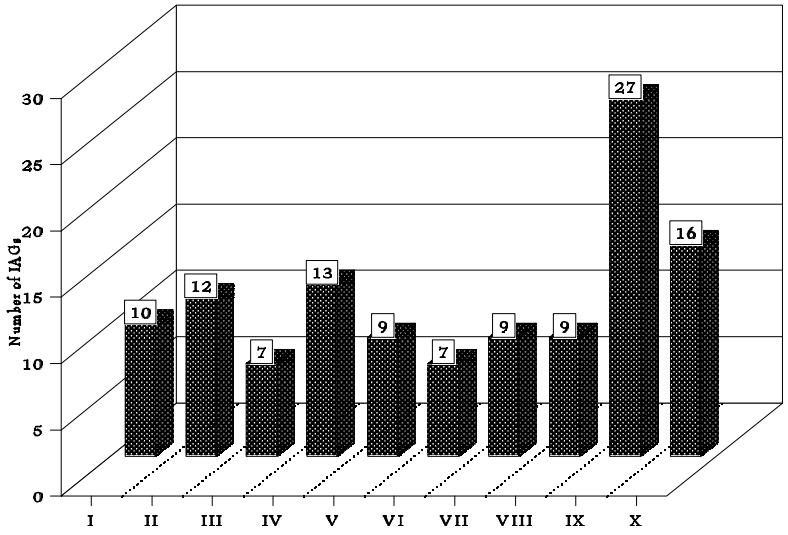
At the start of EPA's Federal facilities enforcement program, EPA directed its resources largely to the completion of negotiations for CERCLA §120 IAGs. These agreements made up the cornerstone of the enforcement program addressing the 150 final and 10 proposed Federal facilities listed on the NPL at the end of FY 1994. Each agreement contained specific schedules for the study and cleanup of hazardous substances at these facilities.

During FY 1994, 11 additional Federal facility CERCLA IAGs were executed. Of the sites at Federal facilities listed on the NPL at the end of FY 1994, 129 are now covered by 120 IAGs.[6] Exhibit III - 52 shows the number of CERCLA IAGs signed by Region from FY 1987 to FY 1994.

[6] An IAG may cover activities at more than one site and be signed by more than one agency.

Exhibit III - 52

Final CERCLA IAGs Signed by EPA Region FY 1987-94



With the majority of these agreements completed, EPA now concentrates most of its efforts on their implementation. For example, the Regions reported 60 RODs signed in FY 1994. In addition, they have reported 49 remedial design starts, 52 remedial design completions, 39 remedial action starts and 17 remedial action completions.

In February 1993, EPA issued an interim report by the Federal Facilities Environmental Restoration Dialogue Committee. The committee is a chartered Federal Advisory Committee and includes 40 representatives of Federal agencies, tribal and state governments and associations, and local and national environmental, community, and labor organizations. EPA established the committee in 1992 to develop consensus policy recommendations aimed at improving the Federal facilities environmental restoration decision process to ensure that clean-up decisions reflect the priorities and concerns of all stakeholders. The interim report contained committee recommendations concerning: improving the dissemination of Federal facility restoration information; improving stakeholder involvement in key restoration decisions with special emphasis on the use of site-specific advisory boards; and improving consultation on Federal facility restoration funding decisions and setting priorities in the event of funding shortfalls.

Documentation for Exhibits in this Section

Exhibit Title	Information Source	Date of Data Pull	Comments
Total Number of Federal Facility Sites Listed on the Docket	Docket	03/31/95	--
Federal Facility Sites Listed on the Docket by Agency	Docket	03/31/95	--
DOD Sites on the Docket by Agency	Docket	03/31/95	--
Cumulative Remedial Action Program Accomplishments for Federal Facility Sites	CERCLIS	01/23/95	--
Federal Facility Sites Listed in CERCLIS	CERCLIS	01/18/94	--
Federal Facilities on the NPL	CERCLIS	11/15/94	--
CERCLA IAGs Signed by Region	CERCLIS	01/23/95	--

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BASE REALIGNMENT AND CLOSURE ACT

The Base Realignment and Closure Acts of 1988 and 1990 provide for the realignment or complete closure of military installations based on revised force structure needs. The Acts stipulate that bases be chosen for closure or realignment in 1988 (BRAC I), 1991 (BRAC II), 1993 (BRAC III), and 1995 (BRAC IV). Information on BRAC IV is not included in this report since the report covers FY 1993-94.

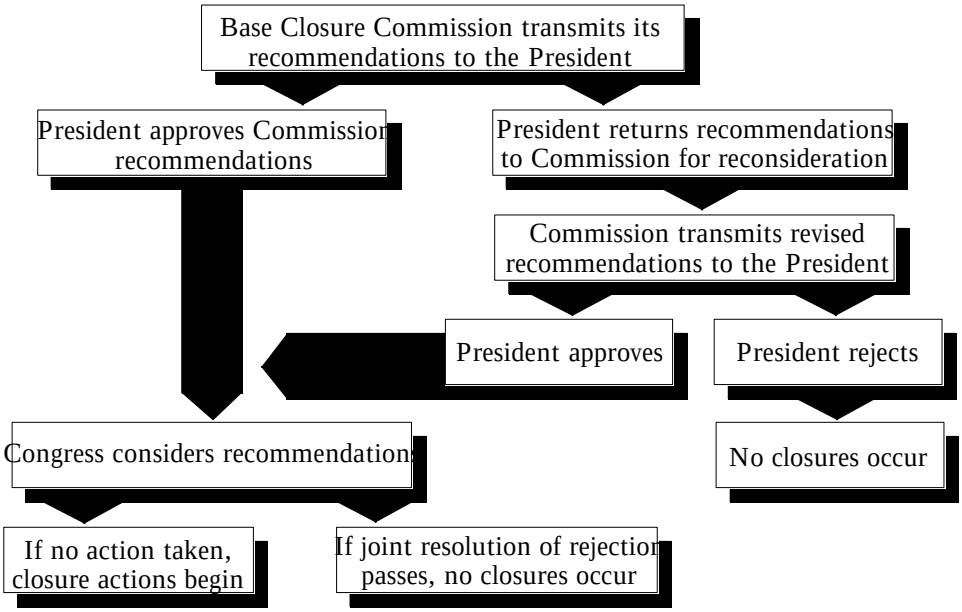
Definitions of Important Terms -- BRAC

Base Closure	An action taken at a military installation to terminate active or reserve military activity and transfer the installation's real property to another authority (i.e., national guard, other Federal agency, State, or commercial entity).
Base Realignment	Any action taken at a military installation that both reduces and relocates functions and civilian personnel positions, but does not include a reduction in force resulting from workload adjustments, reduced personnel or funding levels, or skill imbalances.

Bases recommended by DOD for closure or realignment are submitted to the Defense Base Closure and Realignment Commission that reviews the list to ensure that DOD did not substantially deviate from the selection criteria (i.e., military value, economic, and environmental considerations). The Commission could recommend changes for those bases where a substantial deviation was established. The Commission's list is subject to Presidential approval and Congressional action. If the President approves the Commission's recommendations, the list is forwarded to Congress for its consideration. Congress must either pass a joint resolution blocking the entire list or the entire list becomes law. Congress has 45 legislative days to act. In terms of implementation, the Legislation requires DOD to begin all realignments and closures within two years of the date the President transmitted his approval to Congress and to complete them no later than six years after the same date. Exhibit III - 53 provides an overview of the BRAC selection process.

Exhibit III - 53

BRAC Selection Process



In an effort to facilitate base closure and reuse, CERCLA Section 120 was amended by the Community Environmental Response Facilitation Act (CERFA) in 1992. CERFA requires that DOD identify "uncontaminated parcels." For BRAC I and BRAC II bases on the NPL, the identification by DOD and concurrence by EPA was to be completed within 18 months of CERFA's enactment (April 19, 1994). For property on military bases designated for closure under BRAC III, the date for identification and concurrence was March 27, 1995.

For property on military bases designated for closure under BRAC IV, the identification and concurrence is due to be completed by March 1997. While the mandated period for these installations to identify parcels as uncontaminated has expired or will expire on certain dates, the obligation to obtain concurrence continues beyond these dates. Exhibit III - 54 provides information on parcels identified by DOD as CERFA uncontaminated and concurred upon by EPA for BRAC I and BRAC II bases.

Exhibit III - 54
CERFA Uncontaminated Parcels at
BRAC I and BRAC II Bases with EPA Concurrence

Installation	Installation Acreage	Number of CERFA Parcels	CERFA Acreage	CERFA Parcel % of Installation
Region I				
Ft. Devens, MA	9,280	71	1,831	20%
Loring AFB, ME	8,700 + 780	14	4,746	50%
NCBC, RI	1,200	1	7	0.58%
Region III				
NAWC, PA	839	1	150	18%
Region IX				
Castle AFB, CA	2,777	2	270	10%
George AFB, CA	5,073	10	1,270	25%
Mather AFB, CA	5,716	13	2,572	45%
Norton AFB, CA	2,127	10	320	15%
Williams AFB, AZ	4,000	11	2,000	50%
Sacramento Army, AZ	485	12	73	15%
Ft. Ord, CA	28,057	60	13,123	47%
Region X				
Umatilla Army	16,433	8	11,467	70%
Total		**213**	**37,829**	

Under CERCLA Section 120(h)(4), "uncontaminated" parcels are those on which no hazardous substances and no petroleum products or their derivatives were stored for one year or more, known to have been released, or disposed of. EPA issued guidance on the implementation of CERCLA Section 120(h)(4) on April 19, 1994. The guidance allows, in certain cases, for parcels to be identified as uncontaminated although some limited quantity of hazardous substances or petroleum products has been stored, released or disposed of, if there is no indication

that the activity associated with the storage, release, or disposal has resulted in a threat to human health or the environment.

For parcels requiring remediation, CERFA clarifies CERCLA Section 120(h)(3) to allow transfer by deed at the point when the successful operation of an approved remedy has been demonstrated to EPA.

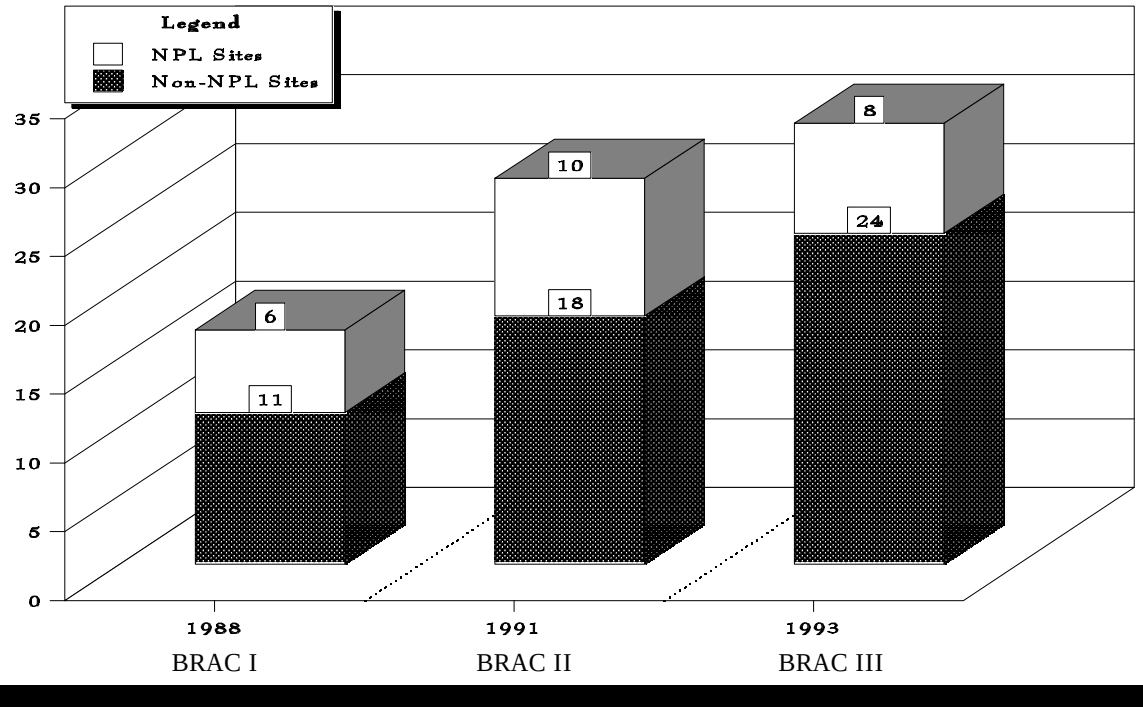
The effects of closing these Federal facilities often extend well beyond the Federal sector, impacting local and regional economies and livelihoods. A plan to mitigate economic dislocation and speed economic recovery of communities near BRAC installations was announced by the Clinton Administration in July of 1993. Rapid redevelopment and job creation are the top goals of this community reinvestment program, commonly referred to as the Five Point Plan.

The Fast Track Cleanup Program at bases with environmental contamination and where property will be available for transfer to the community is an essential component of the President's Five Point Plan. EPA, DOD, and the States are charged with creating a working partnership to implement the Fast Track Cleanup Program with the objectives of quickly identifying clean parcels for early reuse, selecting for appropriate leasing parcels where cleanup is underway, and hastening cleanup.

The number of Fast Track Cleanup locations is a subset of the total number of bases selected for closure or realignment. Fast Track Cleanup locations are identified by DOD as locations where there is environmental contamination and where property will be available for transfer to the community. During FY 94, 77 locations were part of the Fast Track Cleanup Program, 17 are BRAC I, 28 are BRAC II, and 32 are BRAC III, as shown in Exhibit III-55.

Exhibit III - 55

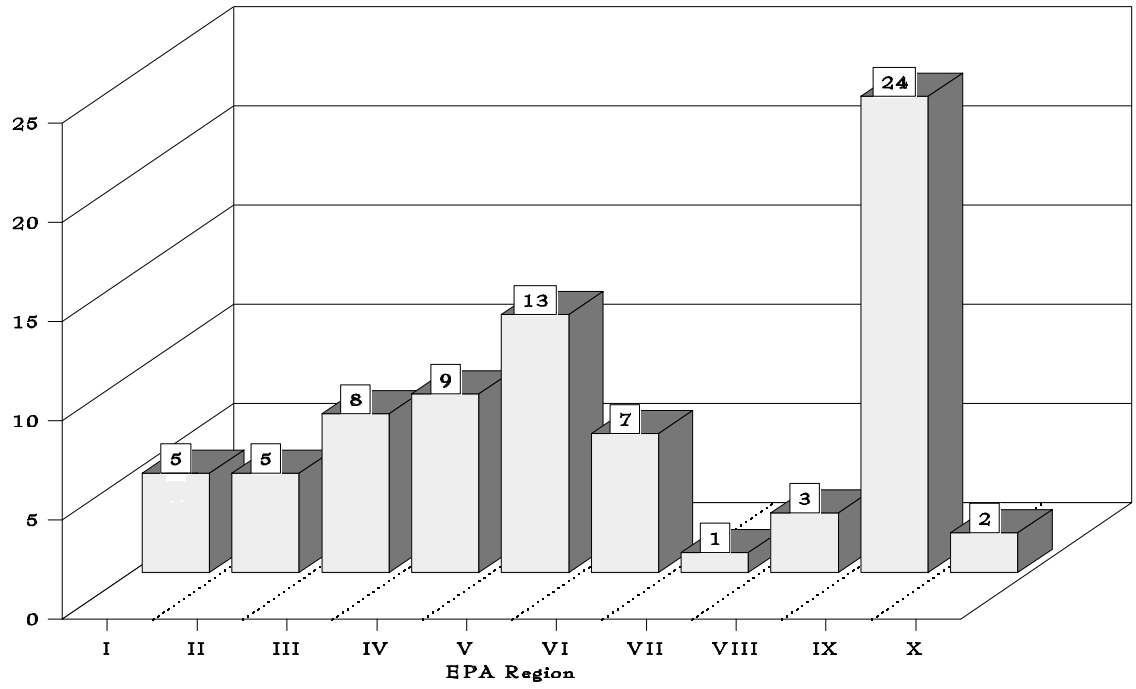
Number of Fast Track Cleanup Locations



As shown in Exhibit III - 56, nearly one-third of all Fast Track Cleanup locations are in Region IX, primarily in California. Region V has the second largest number of locations, followed by Regions IV, III, and VI. A complete list of Fast Track locations by Region is contained in Appendix 2.

Exhibit III - 56

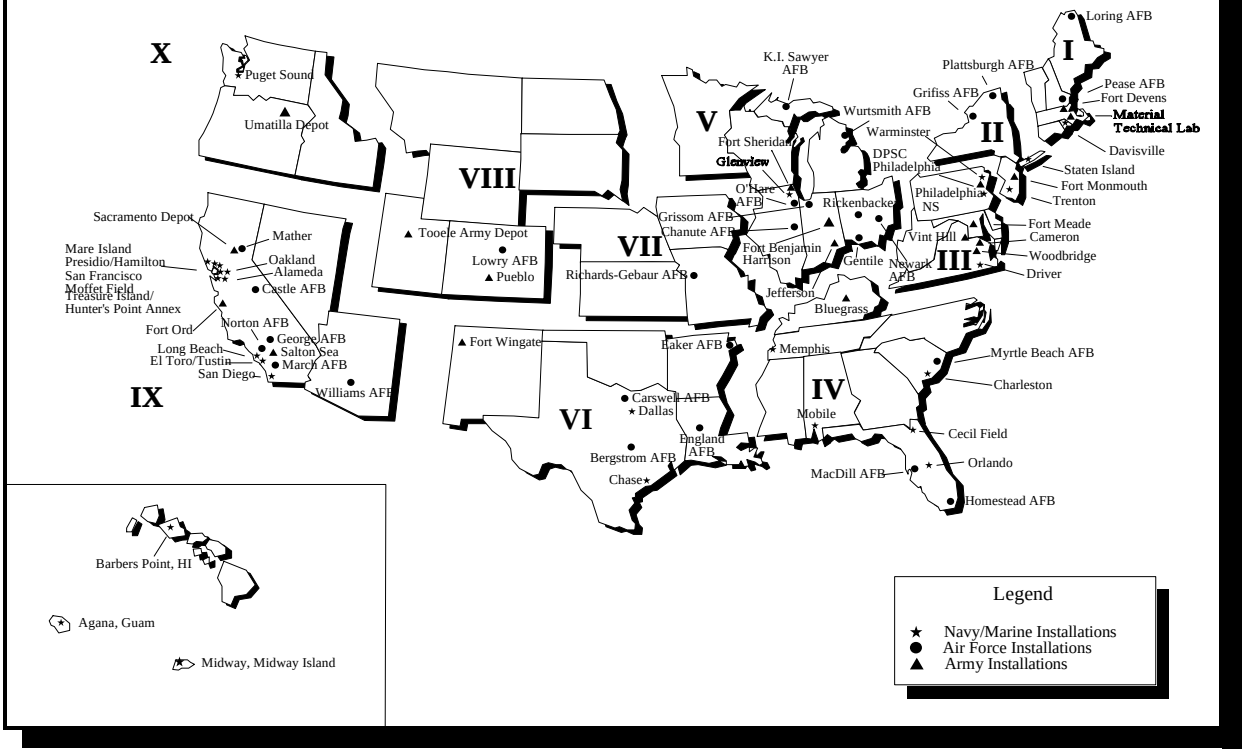
Fast Track Cleanup Locations by EPA Region



Breaking the traditional model for site cleanup, DOD, EPA and State regulators have forged BRAC Cleanup Teams (BCTs) to deal with the complex environmental problems at Fast Track Cleanup locations. BCTs were established at the 77 Fast Track Cleanup locations during FY 1994. With a spirit of partnership, the BCTs work to expedite cleanup and integrate cleanup with potential reuse options. The BCTs are empowered to make decisions locally to the maximum extent possible and have the ability to raise issues immediately to senior level officials for resolution should the need arise. Exhibit III - 57 presents the location of BCTs throughout the country.

Exhibit III - 57

BRAC Cleanup Teams by State



As part of this new approach, EPA and State regulators bring a cadre of technical and legal experts to support the BCTs. For example, EPA provides in-house technical expertise in the areas of hydrogeology, health risk assessment and toxicology, ecological risk assessment, engineering, community relations, field work support (sampling and site assessment), and uncontaminated parcel identification. This leads to real-time decision making, reduction in documents and identification of innovative ways to accomplish faster cleanup.

EPA works with other members of the BCT in the following general areas:

- Accelerating the identification of uncontaminated parcels under CERFA;
- Promoting community involvement in restoration and reuse decision making;
- Completing site assessment and characterization processes and procedures;
- Supporting up-front planning and scoping;

- Preparing and reviewing documents;

- Reviewing the Remedial Investigation/Feasibility Study, Remedial Design, and Remedial Action study and sampling data, and related remedy selection documents;

- Reviewing demonstration that the remedy is operating properly and successfully; and

- Expediting review of environmental documentation relating to deeds and leases to accelerate economic revitalization through reuse.

The Fast Track Cleanup Program recognizes the importance of stakeholder involvement in the process of making decisions about environmental cleanup and the transfer of property. Restoration Advisory Boards (RABs) are the primary means for the community to provide input to the cleanup process. EPA and DOD issued joint guidelines on the implementation of RABs on September 27, 1994. RABs are a forum for exchange of information and partnership among citizens, the installation, DOD, EPA, and the State. RABs serve to improve DOD's cleanup program by increasing community understanding and support for cleanup efforts, improving the soundness of government decisions, and ensuring cleanups are responsive to community needs. The establishment of RABs at 69 Fast Track Cleanup locations during FY 94 is a major accomplishment. In addition, EPA is working with DOD to implement Executive Order 12898 on environmental justice to ensure that no group suffers a disproportionate share of any adverse health and environmental effects associated with the restoration and reuse of closing bases.

During FY 93 and FY 94, the BCTs identified a number of potential measures to be considered for accelerating cleanups and effectively implementing the Fast Track Cleanup Program. These include:

- Joint, up-front scoping of projects;

- Concurrent review of documents;

- In-person review of comments and resolution of issues;

- Interim remedial actions and non time critical removal actions to eliminate "hot spots";

- Recognition of parity between RCRA corrective actions and CERCLA remedial actions;

- Cleanup standards based on existing and reasonably anticipated uses of property;
- Coordination and communication between environmental restoration and reuse planning;
- Improved technology transfer, reviewing technology for application of expedited solutions;
- Identification of opportunities for application of presumptive remedies; and
- Flexible contracting procedures.

The substantial benefits achieved through this teaming approach are made possible through EPA and State participation. EPA and State team members are able to participate through funding provided by DOD through Interagency Agreements (IAGs) with EPA and through the Defense State Memorandum of Agreement (DSMOA) program authorized by Congress. The resources and workyears provided to EPA reside primarily in the Regions. National direction for EPA's participation in the Fast Track Cleanup Program is provided by the Federal Facilities Restoration and Reuse Office in the Office of Solid Waste and Emergency Response.

EPA's Federal Facilities Restoration and Reuse Office (FFRRO)

The mission of FFRRO is to assist the Federal government to promote effective and timely cleanup and reuse of Federal facilities. Major FFRRO functions include:

- Remedial Implementation
- Base Closure
- Stakeholder Involvement
- Regional Program Support.

In conjunction with DOD and EPA's Regional Offices, FFRRO develops long-range environmental policies, plans, and programs to expedite the cleanup and transfer of closing military installations, and oversees Regional implementation of these programs.

FFRRO also develops guidance and policy for Superfund remedial implementation at Federal sites and supports the development of related policies by other agencies.

FFRRO manages the Federal Facilities Environmental Restoration Dialogue Committee which provides the Federal government advice on how to improve stakeholder involvement at Federal facilities and improve priority-setting and management of cleanup programs.

Documentation for Exhibits in this Section

Exhibit Title	Information Source	Date of Data Pull	Comments
BRAC Selection Process	FFRRO	NA	--
CERFA Uncontaminated Parcels with EPA Concurrence	FFRRO	NA	--
Number of Fast Track Cleanup Locations	FFRRO	11/08/95	--
Fast Track Locations by EPA Region	FFRRO	11/08/95	--
BRAC Cleanup Teams by State	FFRRO	11/08/95	--

IV. ENFORCEMENT HIGHLIGHTS

This section provides a broad overview of the enforcement functions and activities of EPA's Federal Facilities Enforcement Office (FFEO) and discusses selected enforcement highlights at Federal facilities during FY 1993 and FY 1994.

The Federal Facility Enforcement Office

EPA's Federal facility enforcement and compliance program, managed by FFEO, helps ensure the Federal government is accountable to the public for its environmental record. In recognition of the public's vital interests, FFEO will work to further engage the public with the Federal sector in the decision making process for management and cleanup of environmental contamination at Federal facilities.

In FY 1993 and FY 1994, the FFEO continued to ensure Federal government compliance with all environmental laws. The Federal government manages a vast array of industrial activities at its installations. These activities present unique management problems from the standpoint of compliance with Federal environmental statutes. Although Federal facilities are only a small percentage of the regulated community, many Federal installations are larger and more complex than private facilities and often present a greater number of sources of pollution in all media. The Federal government is investing significant resources in addressing environmental cleanup and compliance issues at Federal facilities.

Specific FFEO responsibilities address every aspect of Federal facility compliance and enforcement, from planning to implementation. On a strategic planning level, FFEO works with EPA's Office of Enforcement and Compliance Assurance on enforcement and inspection targeting at Federal facilities, oversees the Federal agency environmental management planning program, and participates on interagency pollution prevention and compliance assistance working groups. In addition, FFEO reviews proposed Federal legislation and develops EPA positions on appropriate Federal responsibilities under such legislation. FFEO also is involved in developing Federal facility enforcement strategies and in preparing guidance to assist Regions in their implementation.

Major FFEO functions

- Policy and guidance development,
- Regional program support,
- Interagency agreement negotiation support,
- Enforcement support,
- Program and information support, and
- Technical assistance and capacity building.

On an implementation level, FFEO is directly involved in enforcement negotiations, including CERCLA interagency agreements (IAGs) and Memoranda of Understanding, and in litigation and enforcement oversight at Federal

facilities. FFEO also tracks compliance at Federal facilities; promotes pollution prevention, multi-media enforcement/compliance, and environmental justice at Federal facilities; and encourages the use of innovative technologies to attain pollution prevention, compliance, and cleanup goals.

Federal Facility Compliance Act

The Federal Facility Compliance Act (FFCA), amending RCRA, became effective on October 6, 1992. The primary purpose of the FFCA is to ensure that Federal facilities are treated in the same manner as privately-owned facilities with respect to RCRA compliance. The law greatly enhances State and EPA enforcement authorities against Federal facilities. In the past, when EPA discovered RCRA violations at Federal facilities, EPA relied primarily on negotiated Compliance Agreements to bring the facility back into compliance. States and EPA can now assess and collect penalties for violations of RCRA requirements, as well as issue Administrative Orders against Federal facilities for enforcement of RCRA.

Exhibit IV - 1 summarizes FFCA/RCRA Administrative Orders and proposed penalties issued against Federal facilities by EPA for FY 1993 and FY 1994. The number of EPA issued Orders increased by only one from FY 1993 to FY 1994, however, proposed penalties increased by more than $2.0 million. The average penalty increased from approximately $410,000 in FY 1993 to more than $570,000 in FY 1994. The average penalty for the two-year period was just under $ 500,000. Many of these Administrative Orders were issued to address storage of hazardous waste without permits or open burning and open detonation of munitions without permits.

Exhibit IV - 1

FFCA/RCRA EPA Orders and Penalties

	FY 1993	FY 1994	Total
Administrative Orders	9	10	19
Proposed Penalties	$ 3,699,558	$ 5,722,978	$ 9,422,536

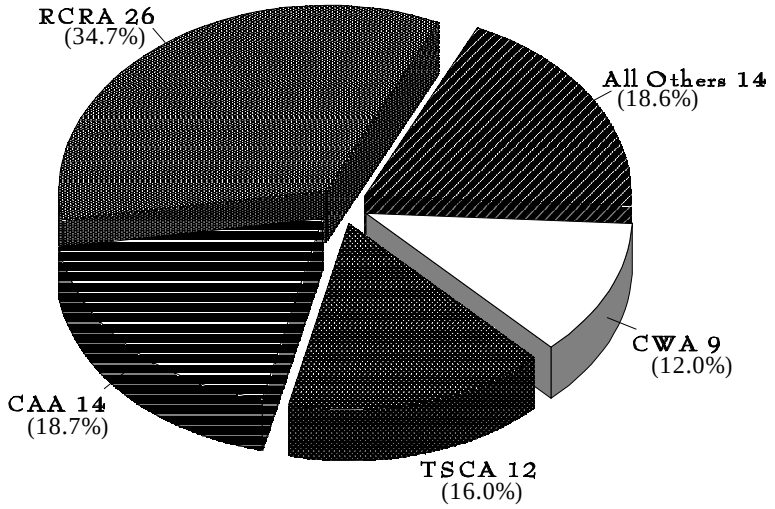
During FY 1994, FFEO completed negotiations of cost recovery interagency agreements with DOE, the Air Force, the Navy, the Army, and the Defense Logistics Agency to satisfy to provisions of the FFCA that require Federal agencies to reimburse EPA for the cost of conducting inspections at RCRA TSDFs.

Federal Facilities Multi-Media Enforcement/Compliance Initiative

Federal facilities are a highly visible sector of the regulated community. Their compliance rates in all media have traditionally been lower than those of the private sector. Based on the need to address the environmental problems in the Federal sector, EPA recently completed the Federal Facilities Multi-Media Enforcement/Compliance Initiative (FMECI) for FY 1993/1994. The goal of the FMECI is to improve Federal agency compliance and reduce environmental risks from Federal facilities through increased use of multi-media inspections; efficient utilization of all available enforcement authorities; and enhanced use of innovative pollution prevention approaches to solving compliance problems. Exhibit IV - 2 shows the most frequently violated statutes during FY 1993 of the FMECI.

Exhibit IV - 2

Most Frequently Violated Statutes for FY 1993 FMECI



N = 75 Enforcement Actions

Many Federal agencies currently use a multi-media approach in their internal auditing and compliance evaluations. Multi-media enforcement provides an opportunity for a comprehensive evaluation of a facility by identifying threats to the environment where pollutants cross through various media. Also, multi-media activities provide for an in-depth opportunity for identifying pollution prevention projects that can be implemented as supplemental or beneficial environmental projects at the facility or throughout similar government branches, agencies, departments, and even the private sector. The emphasis is on projects which take pollution prevention approaches to resolving identified violations.

Federal agencies benefited from this initiative by clearly defining their environmental compliance status and the risks the facility poses to human health and the environment. It will provide greater efficiencies for facilities by eliminating the resource burden of numerous single media inspections and will serve as an excellent training ground through enhanced EPA technical assistance to Federal agency environmental staffs. It will increase the level of environmental awareness of facility employees at all levels, and will help improve Federal facilities compliance by providing a comprehensive view of compliance problems and creative opportunities to protect human health and the environment.

In November, 1994, EPA published the FMECI Interim National Report, which presented the results of the first year (FY 1993) of the initiative. EPA conducted 41 multi-media inspections during FY 1993. These inspections represent a significant investment in the Federal facility sector by EPA and participating States. Approximately 76 percent of inspected facilities received a total of 75 EPA or State enforcement actions. Slightly more than half of all inspected facilities violated multiple environmental statutes. Among facilities receiving enforcement actions, nearly 70 percent violated multiple statutes. EPA and States took a variety of enforcement actions, ranging from warning letters to FFCAs, to address noncompliance. The level of enforcement action was dependent upon the significance of and/or level of noncompliance encountered at these facilities.

FFEO is currently analyzing the results of the FY 1994 FMECI inspections and enforcement actions and anticipates publishing a final FMECI report in the winter of 1995. Although the FMECI has concluded, multi-media inspections have been incorporated as a standard program element for Regional/State enforcement and compliance efforts.

Federal Facilities Enforcement Highlights for FY 1993 and FY 1994

The following section presents selected enforcement highlights at Federal facilities during FY 1993 and FY 1994. Much of the material for this section of the State of Federal Facilities Report is drawn from the annual EPA Enforcement Accomplishments Report.

Camp Stanley Storage Activity and Lackland Air Force Base

Camp Stanley Storage Activity is located just a few miles northwest of San Antonio, Texas. Lackland Air Force Base is located a few miles southeast of San Antonio. Based upon information received from the RCRA permits staff, case development inspections (CDIs) of these facilities were conducted in January 1993. It was determined during the CDIs that both facilities had existent active Open Burning/Open Detonation (OB/OD) Units that had never notified, received a permit, or attained interim status under RCRA. Furthermore, Camp Stanley had not included the OB/OD in its facility closure plans.

The risk to the environment and human health associated with these OB/OD units comes from the hazardous constituents of the waste ordnance. For instance, trinitrotoluene (TNT), an aromatic hydrocarbon, breaks down biologically into isomers that are known to be carcinogenic and mutagenic, and have been extensively used by the military as an explosive for decades.

Complaints were issued to Camp Stanley and Lackland AFB on June 30, 1993, for operation of hazardous waste units without a permit or interim status. Proposed penalties requested were $693,000 against Camp Stanley and $346,500 for Lackland AFB.

Department of Energy -- Fernald

On April 9, 1993, EPA signed an agreement resolving a dispute concerning denial of request for extension of time to submit Operable Unit 2 (OU 2) documents with the U.S. DOE for the Fernald, Ohio site. Pursuant to the agreement, DOE must pay a cash penalty of $50,000, spend $2,000,000 implementing a supplemental environmental project, accelerate work on three other operable units, and submit the OU 2 Proposed Draft Record of Decision (ROD) by January 5, 1995, or pay an additional cash penalty of $25,000.

On February 9, 1993 EPA notified DOE that it did not approve a DOE request for an extension of time to submit a Remedial Investigation Feasibility Study, Proposed Plan reports, and the ROD for OU 2, and further that it intended to assess stipulated penalties for U.S. DOE's failure to submit the reports by February 8, 1993. On February 16, 1993, DOE invoked the dispute resolution provisions of the Amended Consent Agreement (ACA) regarding EPA's February 9, 1993 non-concurrence.

Implementation of the SEP required by this settlement will significantly reduce discharges of uranium from the Fernald site to the Great Miami River. In addition, the assessment of a cash penalty will require U.S. DOE to report to Congress the reasons for the penalty. The combined value of the SEP and penalty amount to over 90 percent DOE's exposure in this matter.

Department of Energy -- Portsmouth Gaseous Diffusion Plant

On May 10, 1993, EPA signed an Agreement Resolving Dispute Concerning Revised Quadrant III RCRA Facility Investigation Work Plan for the Portsmouth Gaseous Diffusion Plant facility in Piketon, Ohio. Pursuant to the agreement, U.S. DOE must pay a cash penalty of $50,000 for past violations of the AOC; spend $1,000,000 to implement a supplemental environmental project; and perform a EPA approved modified RFI workplan In addition, the combined RCRA 3008(h) and CERCLA 106(a) administrative order by consent (AOC) for the facility was amended.

On December 14, 1992, EPA had issued DOE a notice of violation alleging violations of numerous requirements of the AOC. EPA agreed to the stipulated penalty provisions based largely on the Fernald facility AOC with DOE, with the express proviso that EPA does not consider the provisions to be precedent for other Federal facility orders, decrees, or agreements, or at other Federal facilities.

Federal Aviation Administration Technical Center Superfund Site

On August 18, 1993, EPA entered into a Federal Facility Agreement with the Federal Aviation Administration (FAA) under §120 of CERCLA. The agreement requires FAA to remediate approximately 25 areas of contamination at the FAA Technical Center Superfund site in Atlantic City, New Jersey. The site covers 5,052 acres and is contaminated largely due to fire and crash testing exercises as well as the testing and storage of jet fuels. Section 120 of CERCLA requires that agencies, such as the FAA, enter into an agreement with EPA to address the contamination at sites they own which are on the CERCLA NPL. This is the first agreement under CERCLA §120 for the cleanup of a U.S. Department of Transportation facility. The work required under the agreement is expected to cost approximately $55,000,000.

Griffiss Air Force Base

On January 13, 1993, EPA issued a ten count administrative complaint to Griffiss Air Force Base in New York for failure to properly classify restricted waste, failure to maintain a container of hazardous waste in good condition, failure to submit notifications for restricted waste shipped off-site, failure to mark the accumulation start date on containers of restricted hazardous waste, failure to develop a complete waste analysis plan, failure to properly manifest waste off-site, unauthorized storage of hazardous waste, failure to maintain adequate personnel records, and failure to post a warning sign. The complaint does not propose a penalty because the violations preceded the effective date (October 6, 1992) of the newly enacted Federal Facility Compliance Act (FFCA). The violations were detected during inspections at the base between 1987 and 1992. Previously, a Notice of Deficiency had been issued to the Base in December, 1986, regarding a deficient Part B RCRA permit application. This complaint was intended to resolve all outstanding violations.

On July 19, 1993, Region II executed a consent agreement and consent order with the Air Force resolving the matters raised in the January complaint. Both the complaint and the consent order are among the first such documents to be issued in the country under the FFCA. Pursuant to the order, the facility submitted a statement detailing the remedial actions taken rectifying the alleged violations at the site.

Loring Air Force Base Superfund Site

On May 19, 1993, the Air Force agreed to pay stipulated penalties in the amount of $50,000 for failure to meet enforceable deadlines under the Loring Air Force Base CERCLA Federal Facility Agreement (FFA). The Air Force also agreed that in the future EPA may assess stipulated penalties under the FFA for any documents which are technically incomplete because they fail to meet the requirements of CERCLA, the National Oil and Hazardous Substances Contingency Plan, applicable EPA guidance, or applicable state law.

Loring Air Force Base is a Federal facility on the Superfund NPL. The Air Force is conducting the cleanup under the FFA which includes the Air Force, EPA and the State of Maine as parties. Loring is also a closure base under the Defense Base Closure and Realignment Act of 1990.

On February 1, 1993, the Region assessed the penalties for failure of the Air Force to meet the enforceable FFA schedule for two deliverables (a Remedial Investigation and a Remedial Investigations/Focussed Feasibility Study (RI/FFS)) relating to two operable units at the facility. In December, 1992, the Region with state concurrence denied an Air Force request for extension of time to submit the documents. The Air Force based its request on lack of available funds in October and November, 1993, even though the Air Force had assured the State and EPA in early October that new DOD budget funding had already been given to the base.

The agreement reached with the Air Force reflects the Region's efforts to ensure that DOD components will submit technically complete documents in a timely manner at Federal facility NPL sites.

Naval Construction Battalion Center

On September 30, 1993, EPA issued an administrative complaint and compliance order to the Naval Construction Battalion Center (NCBC) located in the town of Davisville, Rhode Island for hazardous waste violations. The complaint proposes the assessment of a civil penalty in the amount of $101,062.

On March 31, 1993, representatives of EPA conducted a RCRA compliance evaluation inspection (CEI) at the NCBC. On the basis of this inspection, EPA determined that the respondent failed to properly conduct hazardous waste determinations, failed to include the EPA hazardous waste number and corresponding waste treatment standard on the Land Disposal Restriction (LDR) Notice, failed to retain copies of LDR notices on site for certain shipments of waste restricted from land disposal, failed to provide annual hazardous waste training to its employees who manage hazardous waste, failed to maintain a written hazardous waste training program and other required records for all personnel who handle or manage hazardous waste, failed to label hazardous waste containers with the dates of accumulation, and failed to conduct weekly container inspections.

Reese Air Force Base

An administrative order under RCRA §7003 was issued to Reese Air Force Base in Texas as a result of an imminent and substantial endangerment to health resulting from Base activities. In March 1993, EPA learned that Reese had detected trichloroethylene above safe drinking water standards in some privately owned drinking water wells near the Base. After confirming the data, EPA issued an agreed-on administrative order under §7003 of RCRA on June 1, 1993. The order requires the Base to collect water samples from water wells in a 36 square mile area (within a 2 mile perimeter of the Base) in order to determine the extent of the contamination, to notify the owners of any contamination, to supply an alternate source of drinking water to the residents with contaminated wells, and to monitor the ground water in and adjacent to the plume. Reese has completed the initial sampling of about 950 wells, provided carbon filters for all the impacted water wells, and connected some of the users to the City of Lubbock's water system. The city is in the process of connecting its water lines to the residents that live within the city limits. The residents living outside the city limits may use the water wells after carbon filtering.

U.S. Coast Guard Kodiak Support Center

On July 14, 1994, EPA Region X issued a complaint against the U.S. Coast Guard Kodiak Support Center in Alaska seeking $1,018,552 in penalties. The complaint resulted from two major RCRA violations: failure to properly monitor groundwater in an area where solvents had been dumped on the ground, and the illegal storage of hazardous waste without a proper permit from EPA. The complaint was the first action brought against a civilian Federal agency under the Federal Facility Compliance Act of 1992 (FFCA) an amendment to RCRA that allows EPA to assess civil penalties against Federal agencies in the same way that it does against private companies.

Presidio of San Francisco

Region IX filed a complaint and citations on May 9, 1994, against the U.S. Army Garrison, Presidio of San Francisco for violating Federal environmental laws and proposed a penalty of $556,500 for the hazardous waste violations. In addition to applying the penalty, the complaint required the Army to inspect each building on the Presidio for hazardous wastes and to remove all such stored wastes by July 1, 1994.

Schofield Barracks

Region IX assessed $543,900 in penalties under RCRA §3008(a) on April 24, 1994, against Schofield Barracks, a U.S. Army facility located in Wahiawa, Hawaii. Schofield Barracks is headquarters for the 25th Infantry Division and 45th Support Group. The facility operates numerous motorpools and maintenance shops that generate wastes such as waste paint, waste solvents, and contaminated waste oils that are listed as hazardous waste under RCRA.

Norfolk Naval Shipyard

EPA Region III issued RCRA §7003 emergency orders on March 25, 1994 requiring the Department of the Navy and the private operator of the municipal waste incinerator at the Norfolk Naval Shipyard, Virginia to address air emissions. Such orders are traditionally used to address hazardous/solid waste issues. The orders are intended to provide a short term remedy for dioxin emissions.

As a result of the Navy's efforts following the order, a June 1994 stack test indicated that dioxin emissions have been reduced by 95 percent from one of the four units at the municipal waste incinerator. Region III and the Navy are moving to the remaining three units and hope to achieve similar results.

Yorktown Naval Weapons Station

On August 31, 1994, EPA, the Navy, and the Commonwealth of Virginia reached a settlement on an interagency agreement (IAG) for the Naval Weapons Station at Yorktown. The Station is a 10,624 acre installation located in York and James City Counties and the City of Newport News. Hazardous substances and other contaminants of concern detected among 14 sites included arsenic, cadmium, chlordane, ethelbenzene, explosives, heptachlor, hexavalent chromium, lead, mercury, PAHs, PCBs, phenols, TCE, 1,2-DCE, thallium, toluene, and zinc.

EPA conducted a RCRA solid waste management unit investigation at the site and issued a final report in December, 1992. The report identified 94 areas at the site requiring additional investigation under RCRA. Of these, 10 will be deferred to the Virginia Department of Environmental Quality underground storage tank program. The IAG requires that the Navy determine the nature and extent of contamination at the site and to perform any remedial action, should it be necessary.

Naval Surface Warfare Center, Dalgren Division

On September 30, 1994, EPA Region III, the Navy, and the Commonwealth of Virginia reached settlement on an IAG for the Naval Surface Warfare Center in Dalgren, VA. The agreement requires the navy to determine the nature and extent of contamination at the site and to perform any remedial action, should it be necessary.

Fort Dix

EPA Region II issued a Notice of Violation on July 15, 1994, to Fort Dix, New Jersey, for violations of the CWA. The Army violated the interim limits on biological oxygen demand contained in the Consent Order EPA-CWA-II-91-95 and the final limits of the facility's NPDES permit. Under the order, the Army will be responsible for the completion of an environmentally beneficial project to offset the effects of the violation. The dollar amount for the project due for the period in question (January 1994 through March 1994) is $4,000.

U.S. Naval Station, Roosevelt Roads

EPA settled a dispute with the Navy at the Roosevelt Roads Station in Puerto Rico. The dispute stemmed from a revised consent order under the NPDES program for violations of an existing Federal Facilities Compliance Agreement (FFCA). The CWA matter in dispute covered violations of the effluent parameters of the facility's NPDES permit and permit limits of an existing FFCA, as well as for overflows of the sewage collection system. A proposed order was originally issued on February 12, 1993. EPA has issued three NOVs to the facility since 1990 under the CAA and CWA, and a warning letter pursuant to RCRA Subtitle I, all of which have been resolved or are on schedule to be resolved.

Documentation for Exhibits in this Section

Exhibit Title	Information Source	Date of Data Pull	Comments
FFCA/RCRA EPA Orders and Penalties	FFEO	--	Data drawn from FY 1993 and FY 1994 Enforcement Accomplishment Reports
Most Frequently Violated Statutes for FY 1993 FMECI	FFEO	11/01/94	Data drawn from FMECI Interim National Report

V. FFEO TECHNICAL ASSISTANCE PROGRAMS

This section discusses the major technical and compliance assistance programs/initiatives administered by FFEO to maintain and promote improved environmental compliance at Federal facilities.

Pollution Prevention

On August 3, 1993, President Clinton signed Executive Order 12856, "Federal Compliance with Right-To-Know Laws and Pollution Prevention Requirements." The Order committed Federal agencies to implement pollution practices across all of their missions and activities. There are approximately 40 separate requirements in the Order and almost half of these have specific deadlines. A key goal of the Order is a 50 percent reduction in toxic pollutants at Federal facilities by 1999. In addition, over 2,000 Federal facilities will be subject to full compliance with EPCRA, PPA and other Executive Order requirements such as the development of facility-specific pollution prevention plans by December 1995.

The three main elements of the Executive Order are: 1) incorporation of Pollution Prevention into day-to-day operations to "ensure that all Federal agencies conduct their facility management and acquisition activities so that... the quantity of toxic chemicals entering any waste stream ... is reduced as expeditiously as possible through sources reduction ..."; 2) compliance with the Emergency Planning and Community Right-to-know Act (EPCRA) and the Pollution Prevention Act (PPA) to "require Federal agencies to report in a public manner toxic chemicals entering any waste stream from their facilities ... and to improve local emergency planning, response and accident notification..."; and 3) Federal government support for clean technologies to "help encourage markets for clean technologies and safe alternatives." Although EPA cannot assess penalties under the Executive Order, it does provide authority to issue NONs for failure to comply with EPCRA requirements.

Education and Outreach

EPA continued to host the EPA/Federal Agency Environmental Roundtable, where representatives of approximately 50 Federal agencies meet monthly to exchange information. At the Roundtable, EPA media experts discuss existing or proposed regulatory approaches affecting compliance by the other Federal agencies. The Roundtable also provides a forum for an exchange of technological information between agencies.

In January of 1993, to address the specific environmental compliance needs and concerns of civilian Federal agencies, EPA organized the Civilian Federal Agency Task Force. The task force is addressing problems consistently cited by these civilian agencies, including: inadequate training programs; deficient information resources; outdated compliance tracking and recordkeeping system; shortage of trained professionals with sufficient knowledge and expertise in

environmental management and compliance; insufficient assistance from EPA on specific agency issues having a national impact; and inadequate communication and coordination and communication among EPA headquarters, EPA regions and other Federal agencies.

FFEO, in cooperation with the U.S. Coast Guard, Postal Service, and NASA sponsored a series of six Federal facility pollution prevention planning workshops at sites throughout the country. The two-day workshops were intended to assist Federal facility environmental coordinators in complying with the pollution prevention planning requirements of E.O. 12856. The workshops were designed to equip environmental professionals with the basic tools and skills to prepare a pollution prevention plan by providing an overview of the requirements, planning approaches, and management techniques.

With the participation and assistance of the Regional FFCs, EPA's Office of Pollution Prevention and Toxics held a series of Regional workshops in FY 1994 to assist personnel at Federal facilities who are responsible for overseeing compliance with E.O. 12856 or are in charge of implementing pollution prevention activities at their facilities. The workshops focussed on various EPCRA requirements, particularly the reporting requirements under Section 313. In addition, the workshops included an expanded discussion of pollution prevention program design, plan development, and implementation.

The following is a list of recent documents and other resources available from FFEO. To order these documents or for more information, contact FFEO at (202) 564-2461.

FFEO Resources

Guidance for Implementing Executive Order 12856 Federal Compliance with Right-to-Know Laws and Pollution Prevention Requirements: Questions and Answers, March 1995. (EPA 300-B-95-005)

Pollution Prevention in the Federal Government: Guide for Developing Pollution Prevention Strategies for Executive Order 12856 and Beyond, April 1994. (EPA 300-B-94-007)

Federal Agency Environmental Management Program Planning Guidance, October 1994. (EPA 300-B-95-001)

Federal Facilities Multi-Media Enforcement/ Compliance Initiative; Interim National Report, November 1994. (EPA 300-R-94-007)

Pollution Prevention and Right-to-Know in the Government: Executive Order 12856, October 1993. (EPA-100-K-93-001)

Generic Protocol for Conducting Environmental Audits of Federal Facilities, May 1995.

Environmental Management System Benchmark Report: A Review of Federal Agencies and Selected Private Corporations, October 1994. (EPA 300-R-94-009)

Executive Order 12856: Federal Compliance with Right-to-Know Laws and Pollution Prevention Requirements: Questions and Answers, March 1995. (EPA 745-R-95-011)

Federal Facility Pollution Prevention Planning Guide, December 1994. (EPA 300-B-94-013)

Catalogue of Federal Agency Environmental Compliance/Management Documents, June 1994. (EPA 300-B-94-011)

Enviro$ense -- EPA's free, public, integrated environmental information system -- Dial (703) 908-2092 (baud 2400 to 14400, 8, N, 1, emulation: ANSI, BBS, or VT-100). Access via the Internet and the World Wide Web is at: http://wastenot.inel.gov/envirosense.

VI. CONCLUSIONS AND NEXT STEPS

EPA and States performed 1,298 and 1,380 inspections in FY 1993 and FY 1994, respectively, which resulted in 462 and 517 enforcement actions. Continued assessment of compliance problems confronting Federal facilities will provide EPA and States the ability to strengthen its oversight programs. Future compliance assessments need to analyze the root causes of noncompliance to achieve environmental compliance goals within the Federal sector.

EPA will continue to work with States, Indian Tribes, other Federal agencies, and the public to achieve Federal environmental leadership. Specifically, EPA will focus on the following key objectives:

- Determining the causes of noncompliance with environmental laws.
- Integrating multi-media inspection and enforcement strategies into standard environmental program requirements for Federal facilities.
- Working with Federal agencies to incorporate pollution prevention into their environmental management planning efforts.
- Involving the public in each stage of the Federal government's environmental decision-making process.
- Applying the full range of enforcement authorities available under environmental laws.
- Ensuring compliance with negotiated enforcement agreements at Federal facilities.
- Implementing a process for accelerating the cleanup of military installations slated for closure.
- Reducing the cost and increasing the effectiveness of environmental technologies.
- Training Federal agency staff in the objectives and approaches for environmental cleanup and compliance.

APPENDIX 1: FEDERAL FACILITIES ON THE NPL

(Organized by Agency and Region)

Air Force:

Region	Facility Name	BRAC	IAG	NPL Status
I	Otis Air National Guard	No	Yes	Final 11/89
	Hanscom Field	No	No	Final 5/94
	Loring AFB	Yes	Yes	Final 2/90
	Pease AFB	Yes	Yes	Final 2/90
II	Federal Avaition Admin.	No	Yes	Final 8/90
	Griffiss AFB	Yes	Yes	Final 7/87
	Plattsburgh AFB	Yes	Yes	Final 11/89
III	Dover AFB	No	Yes	Final 3/89
IV	Homestead AFB	Yes	Yes	Final 8/90
	USAF Robins AFB	No	Yes	Final 7/87
	Arnold Enginnering	No	No	Proposed 8/94
V	Wurtsmith AFB	Yes	No	Proposed 1/94
	Rickenbacker AFB	Yes	No	Proposed 1/94
	Twin Cities AFB	No	Yes	Final 7/87
	US Air Force Wright Patterson AFB	No	Yes	Final 10/89
VI	Tinker AFB	No	Yes	Final 7/87
	Air Force Plant #4	No	Yes	Final 8/90
VIII	Air Force Plant PJKS	No	Yes	Final 11/89
	Ellsworth AFB	No	Yes	Final 8/90
	Hill AFB	No	Yes	Final 7/87
	F.E. Warren AFB	No	Yes	Final 2/90

Region	Facility Name	BRAC	IAG	NPL Status
IX	Luke AFB	No	Yes	Final 8/90
	Williams AFB	Yes	Yes	Final 11/89
	Edwards AFB	No	Yes	Final 8/90
	George AFB	Yes	Yes	Final 2/90
	Castle AFB	Yes	Yes	Final 7/87
	McClellan AFB	No	Yes	Final 7/87
	Norton AFB	Yes	Yes	Final 7/87
	March AFB	Yes	Yes	Final 11/89
	Travis AFB	No	Yes	Final 11/89
	Mather AFB	Yes	Yes	Final 11/89
	Anderson AFB	No	Yes	Final 10/92
X	Eielson AFB	No	Yes	Final 11/89
	Elmendorf AFB	No	Yes	Final 8/90
	Mountain Home AFB	No	Yes	Final 8/90
	McCord AFB	No	Yes	Final 7/87
	Fairchild AFB	No	Yes	Final 3/89

Army:

Region	Name of Facility	BRAC	IAG	NPL Status
I	Fort Devens Sudberry Annex	No	Yes	Final 2/91
	AMTL	Yes	No	Final 5/94
	Natick Lab	No	No	Final 5/94
	Fort Devens	Yes	Yes	Final 11/89
II	Fort Dix	No	Yes	Final 7/87
	Picatinny Arsenal	No	Yes	Final 2/90
	Seneca Army Depot	No	Yes	Final 8/90
III	Aberdeen Proving Ground Edgewood	No	Yes	Final 2/90
	Aberdeen Proving Ground Michaelsville	No	Yes	Final 10/89
	Letterkenny PDO area	No	Yes	Final 3/89
	Tobyhanna Army Depot	No	Yes	Final 8/90
	Letterkenny SE Area	No	Yes	Final 7/87
	Fort Eustis	No	No	Proposed 1/94
	West Virginia Ordanance	No	Yes	Final 9/83
IV	USA Anniston Army Depot	No	Yes	Final 3/89
	USA Alabama Army Ammunition Plant	No	Yes	Final 7/87
	USA Redstone Aresenal	No	No	Final 5/94
	Milan Army Ammunition	No	Yes	Final 7/87
	USA Defense Depot Memphis	No	Yes	Final 10/92
V	Joilet Army Ammo. Plt. Area	No	Yes	Final 3/89
	Savanna Army Depot	No	Yes	Final 3/89
	Joliet Army Ammo Plant Manufacturing	No	Yes	Final 7/87

Region	Name of Facility	BRAC	IAG	NPL Status
	New Brighton/Arden Hills	No	Yes	Final 10/83
VI	Louisiana Army Ammunition Plant	No	Yes	Final 3/89
	Longhorn Army Ammunition	No	Yes	Final 8/90
	Lone Star Army Ammuntiion Plant	No	Yes	Final 7/90
VII	Iowa Army Ammunition Plant	No	Yes	Final 8/90
	Fort Riley	No	Yes	Final 8/90
	Lake City Army Ammuntiion Plant	No	Yes	Final 7/87
	Weldon Springs Former Army Ordance Works	No	Yes	Final 2/90
	Cornhusker Army Ammuntion Plant	No	Yes	Final 7/87
VIII	Rocky Mountain Arsenal	No	Yes	Final 7/87
	Tooele Army Depot	Yes	Yes	Final 8/90
	Ogden Defense Depot	No	Yes	Final 7/87
IX	Sacramento Army Depot	Yes	Yes	Final 7/87
	Fort Ord	Yes	Yes	Final 2/90
	Riverbank Army Ammuniton	No	Yes	Final 2/90
	Sharpe Army Depot	No	Yes	Final 7/87
	Schofield Barracks	No	Yes	Final 8/90
	Tracy Defense Depot	No	No	Final 8/90
X	Fort Wainwright	No	Yes	Final 8/90
	Fort Richardson	No	Yes	Final 5/94
	Umatilla	Yes	Yes	Final 7/87
	Hamilton Island Landfill (USA/COE)	No	Yes	Final 10/92

Region	Name of Facility	BRAC	IAG	NPL Status
	Fort Lewis Logistics Center	No	Yes	Final 11/89
	Fort Lewis Landfill No. 5	No	Yes	Final 7/87

Navy:

Region	Facility Name	BRAC	IAG	NPL Status
I	New London Submarine Base	No	Yes	Final 8/90
	South Weymouth Naval Air Station	No	No	Final 5/94
	Naval Weapons Industrial Reserve	No	No	Final 5/94
	Portsmouth Naval Shipyard	No	No	Final 5/94
	Brunswick Naval Air Station	No	Yes	Final 7/87
	Davisville Naval Construction Batt. Ctr.	Yes	Yes	Final 11/89
	Newport Naval Education	No	Yes	Final 11/89
II	Naval Weapons Station Earle	No	Yes	Final 8/90
	Naval Air Engineering	No	Yes	Final 7/87
	Naval Security Group Activity	No	Yes	Final 10/89
III	Pautexent River Naval Air	No	No	Final 5/94
	Willow Grove Naval Air	No	No	Proposed 8/94
	Navy Ships Parts Control	No	No	Final 5/94
	Naval Air Development Centers	Yes	Yes	Final 10/89
	Marine Corps Combat Development	No	No	Final 5/94
	Naval Surface Warfare Dahlgren	No	Yes	Final 10/92
	Naval Surface Warfare Yorktown	No	Yes	Final 10/92
	Allegany Ballistics Lab	No	No	Final 5/94
IV	US Naval Air Station Whiting Field	No	No	Final 5/94
	USN Cecil Field	Yes	Yes	Final 11/89

Region	Facility Name	BRAC	IAG	NPL Status
	USN Jacksonville	No	Yes	Final 11/89
	Pennsacola Naval Air Station	No	Yes	Final 11/89
	USMC Logisitics Base 555	No	Yes	Final 11/89
	Cherry Point Marine Corps	No	No	Proposed 8/94
	USMC Camp Lejeune	No	Yes	Final 10/89
	Parris Island	No	No	Proposed 8/94
V	Naval Industrial Reserve Ordanance	No	Yes	Final 11/89
IX	US Air Force Plant 85 AKA US Navy Weapon	No	No	Proposed 1/94
	Yuma Marine Corps	No	Yes	Final 2/90
	Treasure Island Naval Air Station	Yes	Yes	Final 11/89
	Camp Pendleton Marine Corps	No	Yes	Final 11/89
	Moffett Naval Air Station	Yes	Yes	Final 7/87
	El Toro Marine Corps	Yes	Yes	Final 2/90
	Concord Naval Weapons Station	No	No	Proposed 2/92
	Barstow Marine Corps	No	Yes	Final 11/89
	Naval Computer & Telecommunications Center	No	No	Final 5/94
	Pearl Harbor Naval Complex	No	Yes	Final 10/92
X	ADAK Naval Air Station	No	Yes	Final 5/94
	Naval Undersea Warfare Station	No	Yes	Final 10/89
	Puget Sound Naval Shipyard	No	No	Final 5/94
	Jackson Park Housing	No	No	Final 5/94
	Port Hadlock	No	No	Final 5/94
	Bangor Naval Submarine	No	Yes	Final 8/90

Region	Facility Name	BRAC	IAG	NPL Status
	Naval Air Station Whidbey Island (Ault)	No	Yes	Final 2/90
	Bangor Ordance Disposal	No	Yes	Final 7/87
	Naval Air Station Whidbey Island (Seaplane)	No	Yes	Final 2/90

CFAs:

Region	Facility Name	BRAC	IAG	NPL
III	Beltsville Agricultural Research	No	No	Final 5/94
	Langley AFB NASA Langley Research Center	No	Yes	Final 5/94
	Defense General Supply Center	No	Yes	Final 7/87
V	Sangamo Electric Dump	No	Yes	Final 7/87
VI	Cal West Metals	No	Yes	Final 3/89
	Lee Acres	No	Yes	Final 8/90
IX	Tracy Defense Depot	No	Yes	Final 8/90
	Jet Propulsion Lab	No	Yes	Final 10/92
X	Standard Steel & Salvage Yard	No	Yes	Final 8/90
	Fremont National Forest	No	No	Proposed 6/93
	American Lake Gardens	No	Yes	Final 9/84
	Old Navy Dump Lab	No	No	Final 5/94

DOE:

Region	Facility Name	BRAC	IAG	NPL Status
II	W.R. Grace., Inc. Storage Site	No	Yes	Final 9/84
	Brookhaven National Lab	No	Yes	Final 11/89
IV	USDOE Paduchah Gas Diffusuion	No	Yes	Final 5/94
	Savannah River Site	No	Yes	Final 11/89
	Oak Ridge Reservation	No	Yes	Final 11/89
V	Feed Materials Production	No	Yes	Final 11/89
	Mound Plant	No	Yes	Final 11/89
VI	Pantex Plant	No	No	Final 5/94
VIII	Rocky Flats Plant	No	Yes	Final 10/89
	Monticello Mill Tailings	No	Yes	Final 11/89
IX	Lawrence Livermore National	No	Yes	Final 7/87
	Lawrence Livermore Lab (300)	No	Yes	Final 8/90
	Lehr/Old Campus Landfill	No	No	Final 5/94
X	Idaho National Engineering Lab	No	Yes	Final 11/89
	Bonneville Power Administration	No	Yes	Final 11/89
	Hanford 100	No	Yes	Final 10/89
	Hanford 1100	No	Yes	Final 10/89
	Hanford 200	No	Yes	Final 10/89
	Hanford 300	No	Yes	Final 10/89

APPENDIX 2: BRAC INSTALLATIONS

BRAC List -- 1988

Region I
Army Materials Technology Laboratory
Pease Air Force Base

Region III
Fort Meade
Cameron Station

Region IV
Lexington Army Depot

Region V
Chanute Air Force Base
Jefferson Proving Ground
Fort Sheridan

Region VI
Fort Wingate

Region VIII
Pueblo Army Depot

Region IX
George Air Force Base
Mather Air Force Base
Norton Air Force Base
Presidio San Francisco
Hamilton Army Airfield
Salton Sea Test Site

Region X
Umatilla Depot

BRAC List -- 1991

Region I
Fort Devens
Loring Air Force Base
CBC Davisville

Region III
Naval Base Philadelphia
USN Air Development/NAWC Warminster
Harry Diamond Lab

Region IV
Myrtle Beach Air Force Base
MacDill Air Force Base

Region V
Wurtsmith Air Force Base
Rickenbacker Air Guard Base
Fort Ben Harrison
Grissom Air Force Base

Region VI
Eaker Air Force Base
England Air Force Base
Carswell Air Force Base
Naval Air Station Chase Field
Bergstrom Air Force Base

Region VII
Richards Gebaur ARS

Region VIII
Lowry Air Force Base

Region IX
Fort Ord
Sacramento Army Depot

Region IX (cont)
Moffett Field Naval Air Station
Castle Air Force Base
Williams Air Force Base
Tustin Marine Corps Air Station
Hunters Point Naval Shipyard
Naval Station Long Beach

Region X
Naval Shipyard Puget Sound

BRAC List -- 1993

Region II
Plattsburg Air Force Base
Griffis Air Force Base
Naval Air Warfare Center Trenton
Fort Monmouth
Naval Station New York/ Staten Island

Region III
Defense Personnel Support Center Philadelphia
Vint Hill Farms Station
NRTF, Driver

Region IV
Naval Station Mobile
Cecil Field Naval Air Station
Homestead Air Force Base
Orlando Naval Training Center
Charleston Naval Base
Memphis Naval Air Station

Region V
O'Hare International Airport Air Force Reserve Station
Sawyer Air Force Base
Newark Air Force Base
Glenview Naval Air Station
Defense Electronic Supply Center, Dayton
Gentile Air Force Base

Region VI
Dallas Naval Air Station

Region VIII
Tooele Army Depot

Region IX
El Toro Marine Corps Air Station
March Air Force Base
Alameda Naval Air Station
San Diego Naval Training Center
Naval Air Station Agana
Naval Air Station Barbers Point
Mare Island Naval Shipyard
Treasure Island Naval Station
Oakland Naval Supply Center