



EPA FY2008 Enforcement & Compliance Annual Results



Prepared by the Office of Enforcement and Compliance Assurance

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FY2008 Enforcement & Compliance Annual Results

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Highlights

As a result of EPA enforcement actions concluded in FY2008:

- Defendants have committed to invest an estimated \$11.8 billion to reduce pollution, clean up contaminated land and water, achieve compliance, and implement environmentally beneficial projects. This investment commitment is the largest amount ever achieved by EPA.
 - EPA enforcement actions have required companies to invest an estimated inflation adjusted total of \$45 billion in pollution control equipment and clean up plus environmentally beneficial projects over the last 5 years. This is equal to \$36 million/work day.
 - Civil and criminal defendants have committed to reduce pollution by 3.9 billion pounds annually once all required controls are fully implemented.
 - In the past 5 years, EPA has obtained estimated pollution reduction commitments of 7.8 billion pounds, an average of 1.6 billion pounds per year.
 - The FY 2008 amount is the largest amount obtained by EPA since FY 1999 and is approximately equal to the amount achieved over the previous 4 years combined.
- Civil defendants agreed to take complying actions that will result in treatment, minimization, or proper disposal of 6.5 billion pounds of Hazardous Waste.
 - FY 2008 is the first year that EPA has collected data on Hazardous Waste reductions achieved through enforcement cases.
- EPA's 10 largest Clean Air Act stationary source cases resulted in reductions of 1.7 billion pounds of SO_x, NO_x and PM which, in turn, resulted in annual health benefits valued at an estimated \$35 billion.
 - Resulting annual health benefits will include approximately 4,000 fewer premature deaths in people with heart or lung disease; 2,000 fewer hospital visits due to asthma respiratory failure; 200,000 fewer days of missed school or work.



FY2008 Enforcement & Compliance Annual Results Highlights (continued)

As a result of EPA clean up enforcement actions concluded in FY2008:

- In 2008, EPA obtained commitments from responsible parties to invest \$1,575 billion for investigation and clean up of Superfund sites. This is the highest total in the last seven years.
- 100 million cubic yards of contaminated soil will be cleaned up – a record total - and 255 million cubic yards of contaminated water will be cleaned up.

As a result of our compliance assistance activities in FY 2008:

- 2.6 million entities received compliance assistance from EPA-sponsored web sites or from EPA personnel.



FY2008 Enforcement & Compliance Annual Results

Top Air Enforcement Cases Yield Environmental and Human Health Benefits

Pollutant Reductions

EPA's 10 largest enforcement actions for stationary source Clean Air Act violations obtained commitments by companies to reduce their emissions of sulfur oxides (SO_x), nitrogen oxides (NO_x) and particulate matter (PM).

When all required pollution controls from the 10 enforcement actions are completed, emissions will be reduced by approximately 1.7 billion pounds per year.



Health Benefits

The annual human health benefits from these reductions in SO_x, NO_x, and PM are estimated to have a value of \$35 billion. These health benefits include:

- approximately 4,000 avoided premature deaths in people with heart or lung disease;
- over 2,000 fewer emergency room visits for such diseases as asthma and respiratory failure;
- about 6,000 fewer cases of chronic bronchitis and acute bronchitis;
- about 4,000 fewer nonfatal heart attacks;
- over 30,000 fewer cases of upper aggravated asthma;
- over 50,000 fewer cases of upper and lower respiratory symptoms; and
- over 200,000 fewer days when people would miss work or school.



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National Enforcement Priorities

Addressing Important Environmental Problems

- EPA's enforcement and compliance program identifies and focuses on priority environmental risks and noncompliance problems. The enforcement and compliance priority areas identified by EPA involve pollution of the water, air, and land.
- Approximately 82% of pollution reductions and 67% of pollution control investments obtained through EPA's FY 2008 enforcement actions focused on water and air priority pollution problems.
- Approximately 27% of hazardous waste treated, minimized or properly disposed of, and 3% of pollution control investments obtained through EPA's FY 2008 enforcement actions focused on land priority pollution problems.
- In FY 2008, EPA's enforcement actions addressing national priorities:
 - reduced air pollution by 1,654 million pounds, and required investment of \$4.8 billion in pollution control.
 - reduced water pollution by 1,534 million pounds, and required investment of almost \$3 billion in pollution control.
 - reduced land pollution by 1,751 million pounds of hazardous waste, and required investment of \$0.4 billion in pollution control and clean up.



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National Priority Pollution Problems

	Estimated Pollutants to be Reduced <i>millions of pounds</i>		Estimated Investments in Pollution Control <i>millions of dollars</i> <i>(Inflation Adjusted to FY 08 Dollars)</i>	
	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2007</u>	<u>FY 2008</u>
<p>CSO/SSO</p> <p>Overflows from inadequate combined sewers and sanitary sewers discharge pollutants such as untreated sewage and industrial wastewater into rivers, lakes and oceans.</p>	45 M	173 M	\$3,678 M	\$2,909 M
<p>CAFO</p> <p>Runoff containing nutrients, bacteria, pesticides and antibiotics from concentrated animal feedlots are transported to local waterways.</p>	15 M	32 M	\$31 M	\$10 M
<p>Stormwater</p> <p>Stormwater runoff from large urban areas transports contaminants directly over land and into waterways.</p>	118 M	1,329 M	\$9 M	\$68 M
TOTAL	178 M	1,534 M	\$3,717 M	\$2,986 M

Note: All prior FY dollar figures in this report are adjusted to reflect the current value in FY 2008 dollars based on the monthly rate of inflation as determined by the U.S. Department of Labor Consumer Price Index for All Urban Consumers.

Note: Most of the numbers displayed in this document are rounded. As a result, adding the figures presented here may not produce exactly the same totals as those displayed in other EPA documents.



FY2008 Enforcement & Compliance Annual Results

National Priority Pollution Problems

	Estimated Pollutants to be Reduced <i>millions of pounds</i>		Estimated Investments in Pollution Control <i>millions of dollars</i> <i>(Inflation Adjusted to FY 08 Dollars)</i>	
	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2007</u>	<u>FY 2008</u>
NSR/PSD	426 M	1,654 M	\$2,550 M	\$4,790 M
Industrial facilities that do not obtain permits according to new source review/prevention of significant deterioration Clean Air Act requirements illegally emit pollutants such as SO ₂ , NOx and PM.				
Air Toxics	0.8 M	0.09 M	\$11 M	\$7 M
Toxic air pollutants are known or suspected to cause cancer or other serious health effects or adverse environmental impacts. In FY2008, the Air Toxics Priority focused on three national problem areas: Leak Detection And Repair (LDAR), Flaring, and Surface Coating.				
TOTAL	426.8 M	1,654 M	\$ 2,561 M	\$4,797 M

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 Note: Most of the numbers displayed in this document are rounded. As a result, adding the figures presented here may not produce exactly the same totals as those displayed in other EPA documents.



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National Priority Pollution Problems

Pounds of Hazardous Waste Treated, Minimized or Properly Disposed of
millions of pounds

Estimated Investments in Pollution Control
millions of dollars
(Inflation Adjusted to FY 08 Dollars)

Mineral Processing

Mineral processing and mining sectors generate large volumes of wastes that are corrosive and/or contain toxic metals that contaminate groundwater, surface water, soil, and Sediment.

FY 2007
NC*

FY 2008
1,751 M

FY 2007
\$60 M

FY 2008
\$217 M

Estimated Value of Financial Assurance Restored
millions of dollars

Financial Assurance

Ensures that operators have adequate funds to clean up pollutants at facilities that handle hazardous wastes, hazardous substances, toxic materials, or other pollutants should they close.

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FY 2007
NC*

FY 2008
\$134 M

*NC – Data Not Collected

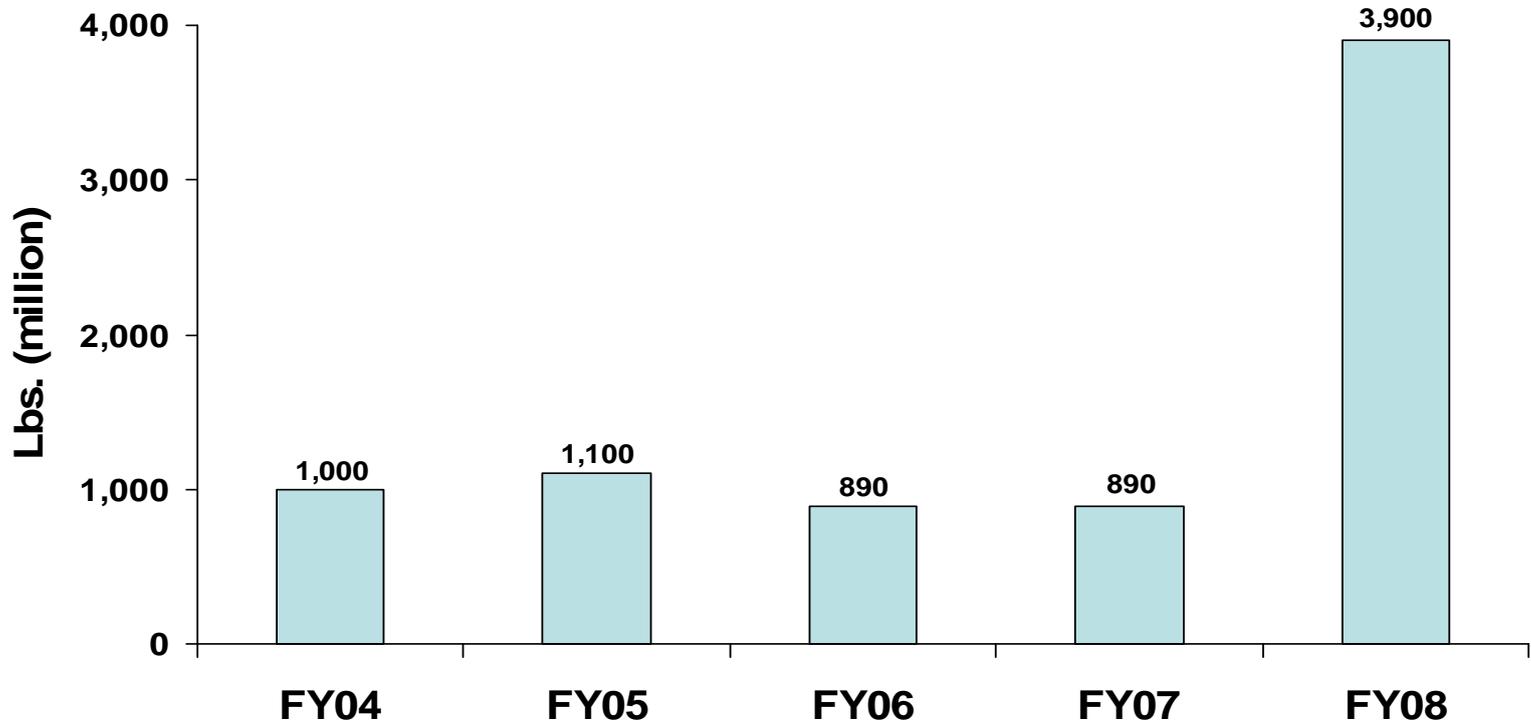
Note: All prior FY dollar figures in this report are adjusted to reflect the current value in FY 2008 dollars based on the monthly rate of inflation as determined by the U.S. Department of Labor Consumer Price Index for All Urban Consumers.



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Results from Concluded EPA Enforcement Actions

Estimated Pollutant Reduction Commitments



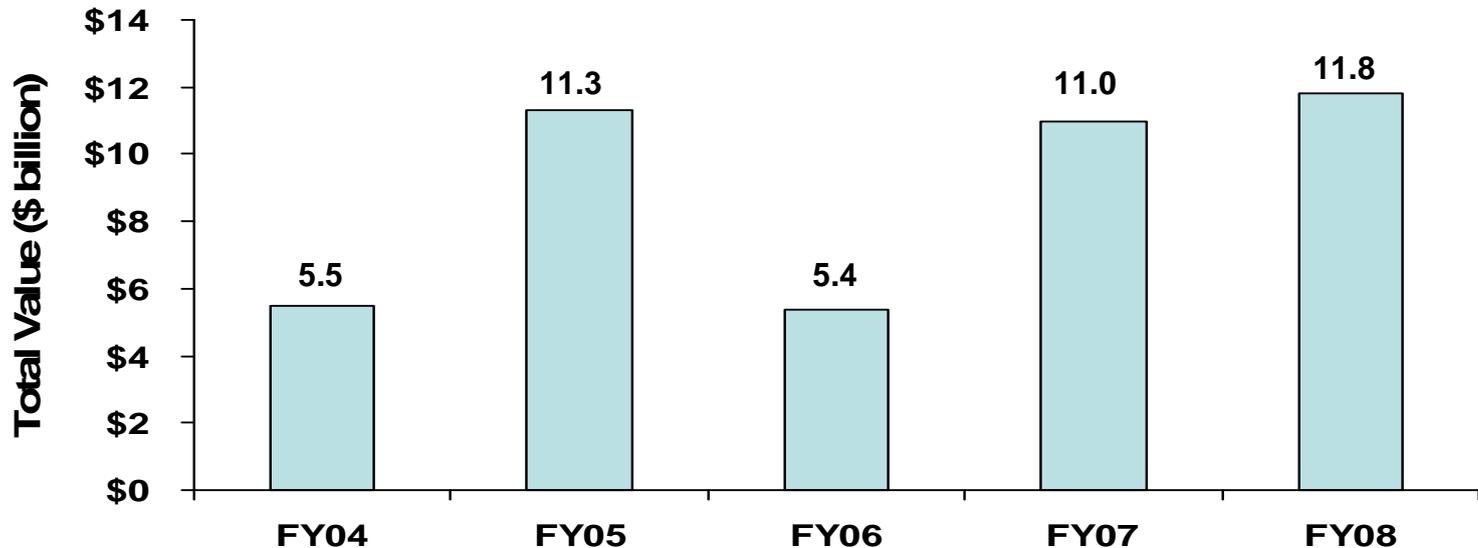
FY2008 Data Source: Integrated Compliance Information System (ICIS), October 11, 2008; data source for previous fiscal years: ICIS



FY2008 Enforcement & Compliance Annual Results

Results from Concluded EPA Enforcement Actions

Estimated Investments in Pollution Control and Clean up plus Environmentally Beneficial Projects (\$ billion)



Note: In some previous years, investments in pollution control and clean up were referred to as “value of injunctive relief.” This value now combined with the value of Environmentally Beneficial Projects and is reported here as one number, consistent with the way EPA reports this information to Congress.

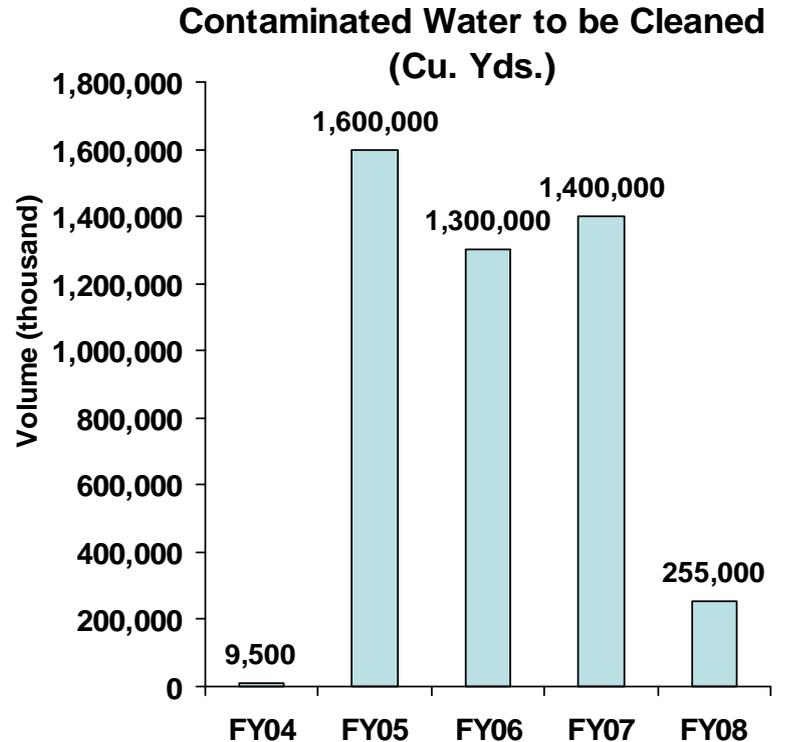
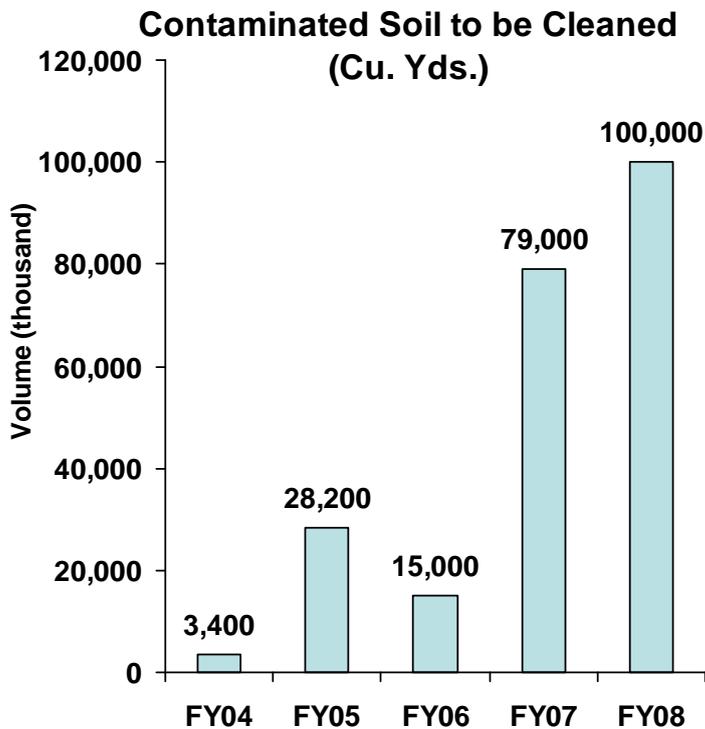
Note: All prior FY dollar figures in this report are adjusted to reflect the current value in FY 2008 dollars based on the monthly rate of inflation as determined by the U.S. Department of Labor Consumer Price Index for All Urban Consumers.



FY 2008 Enforcement & Compliance Annual Results

Results from Concluded EPA Enforcement Actions

Estimated Volume of Contaminated Soil and Water to be Cleaned Up



FY2008 Data Source: Integrated Compliance Information System (ICIS), October 11, 2008; data source for previous fiscal years: ICIS
Disclaimer: Minor corrections may have been made to previous years' data.

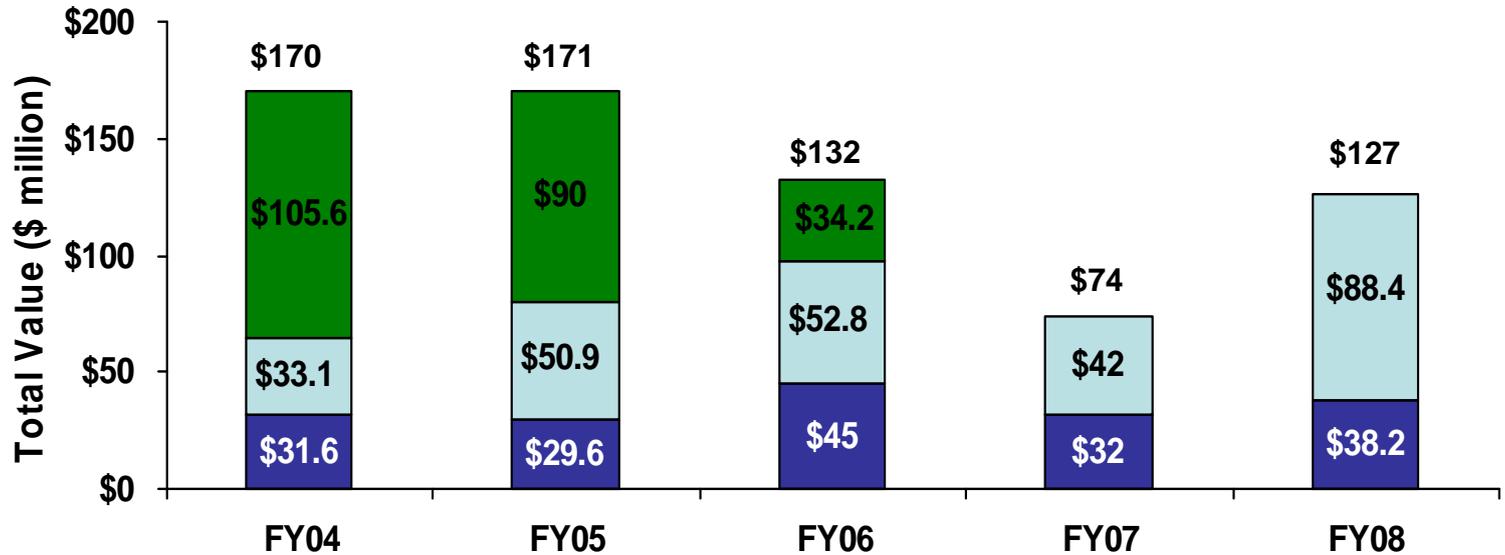


FY2008 Enforcement & Compliance Annual Results

Results from Concluded EPA Enforcement Actions

Civil Penalties Assessed (\$ million)

(Inflation Adjusted to FY 08 Dollars)



■ From Administrative Cases
 ■ From Civil Judicial Cases
 ■ From Default Judgement Cases

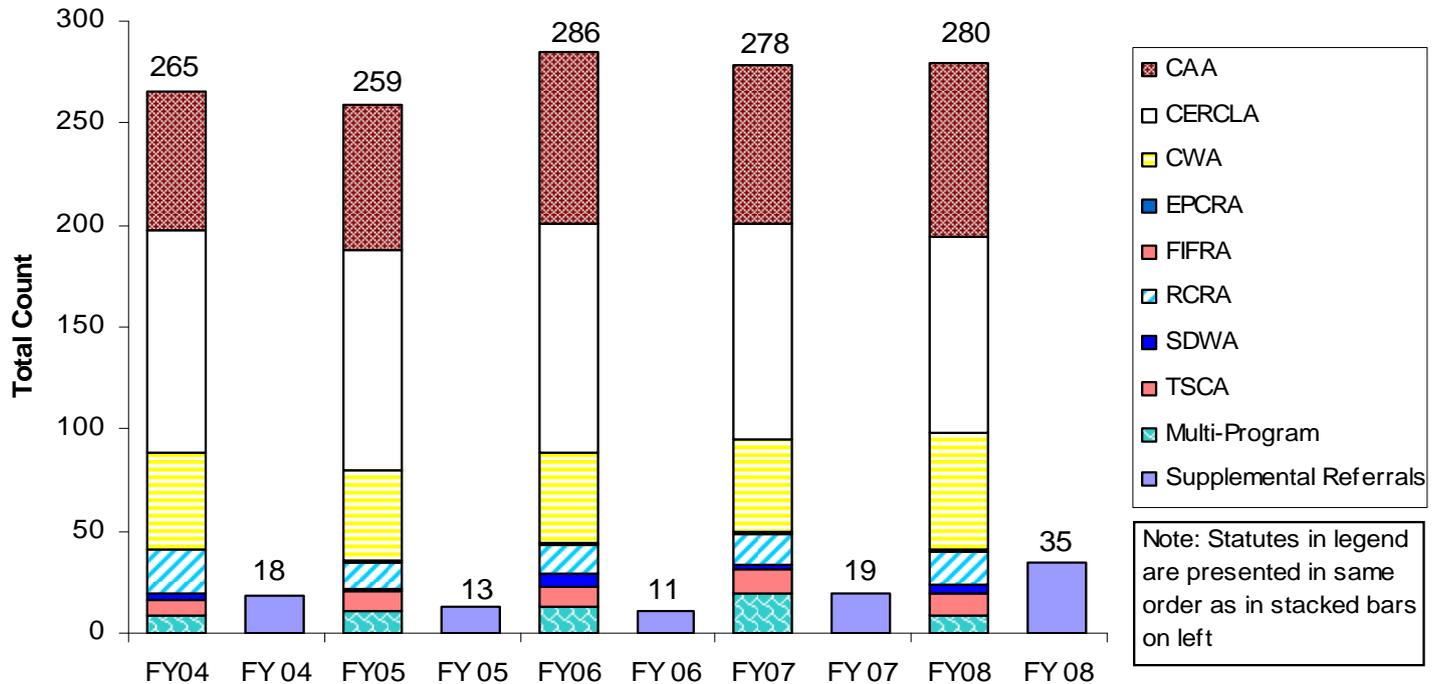
Note: All prior FY dollar figures in this report are adjusted to reflect the current value in FY 2008 dollars based on the monthly rate of inflation as determined by the U.S. Department of Labor Consumer Price Index for All Urban Consumers.

FY2008 Data Source: Integrated Compliance Information System (ICIS), October 11, 2008; data source for previous fiscal years: ICIS



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Referrals of Civil Judicial Enforcement Cases to Department of Justice Total and by Statute



Note: When EPA expands a case that has previously referred to DOJ to add parties, violations or facilities, or to amend or enforce a settlement, this activity is tracked as a "supplemental referral" and is counted separately from "Referrals".

FY2008 Data Source: Integrated Compliance Information System (ICIS), October 11, 2008; data source for previous fiscal years: ICIS

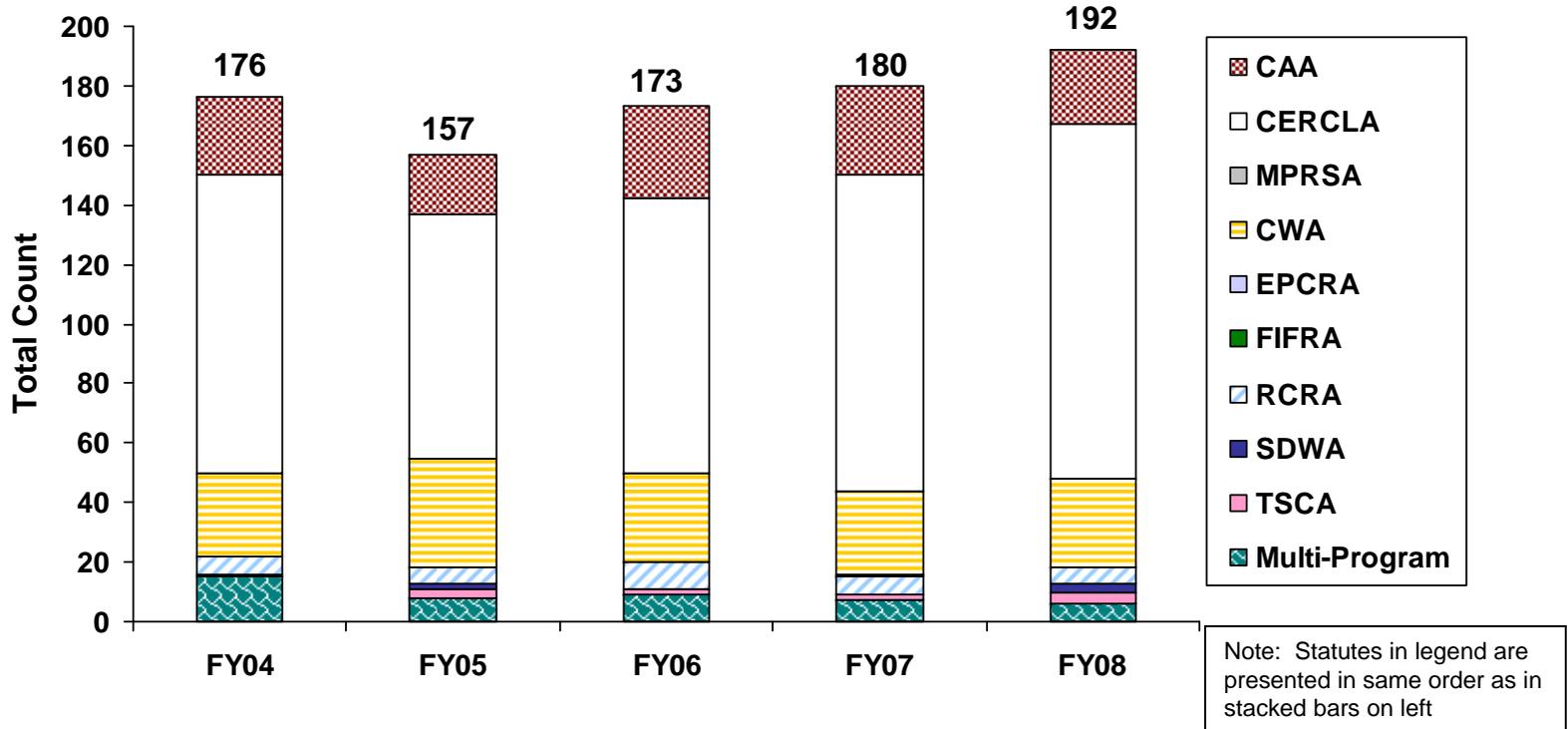


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Concluded EPA Enforcement Actions

EPA Civil Judicial Enforcement Case Conclusions

Total and by Statute



FY2008 Data Source: Integrated Compliance Information System (ICIS), October 11, 2008; data source for previous fiscal years: ICIS



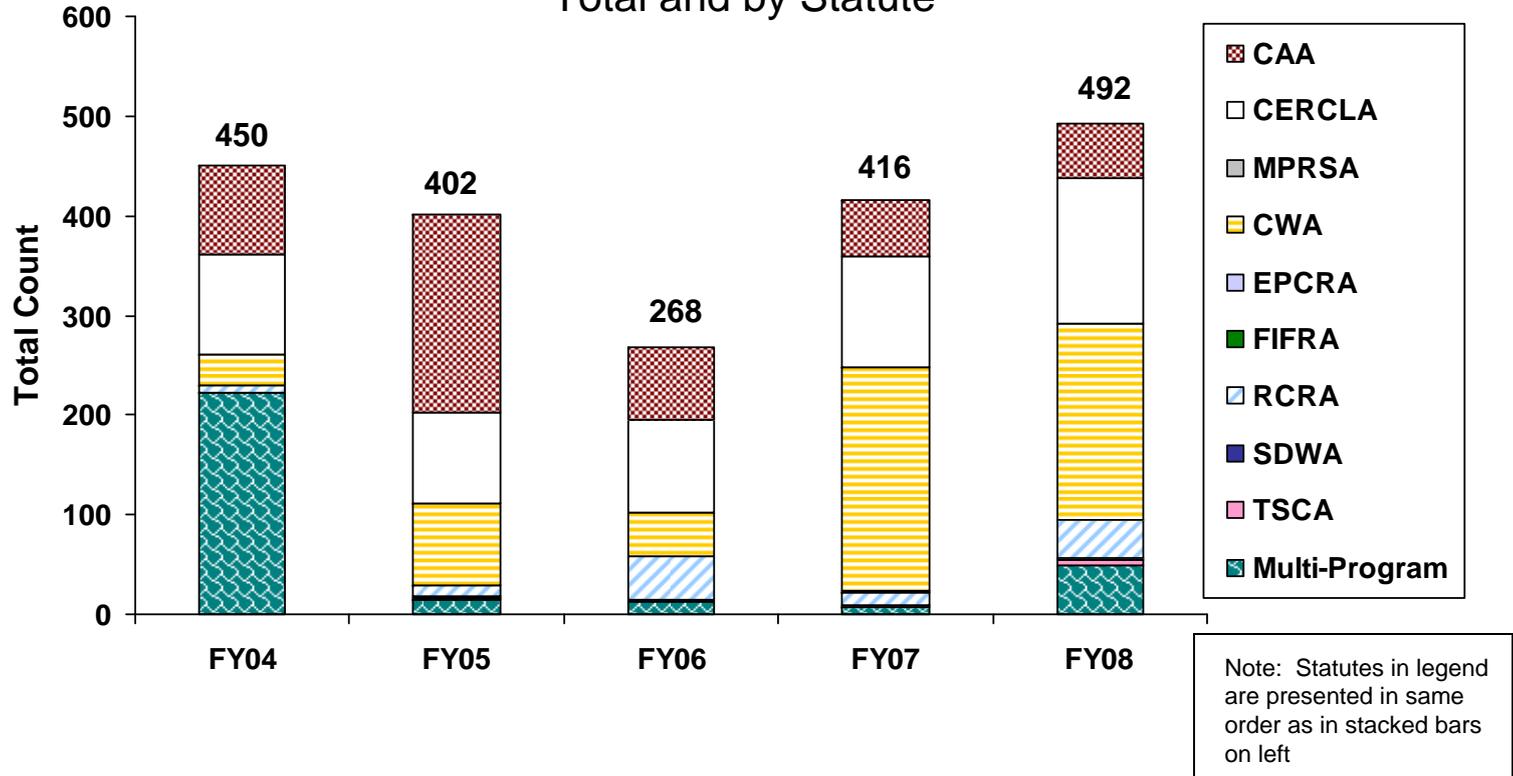
FY2008 Enforcement & Compliance Annual Results

Concluded EPA Enforcement Actions

EPA Civil Judicial Enforcement Case Conclusions

Number of Facilities Addressed

Total and by Statute



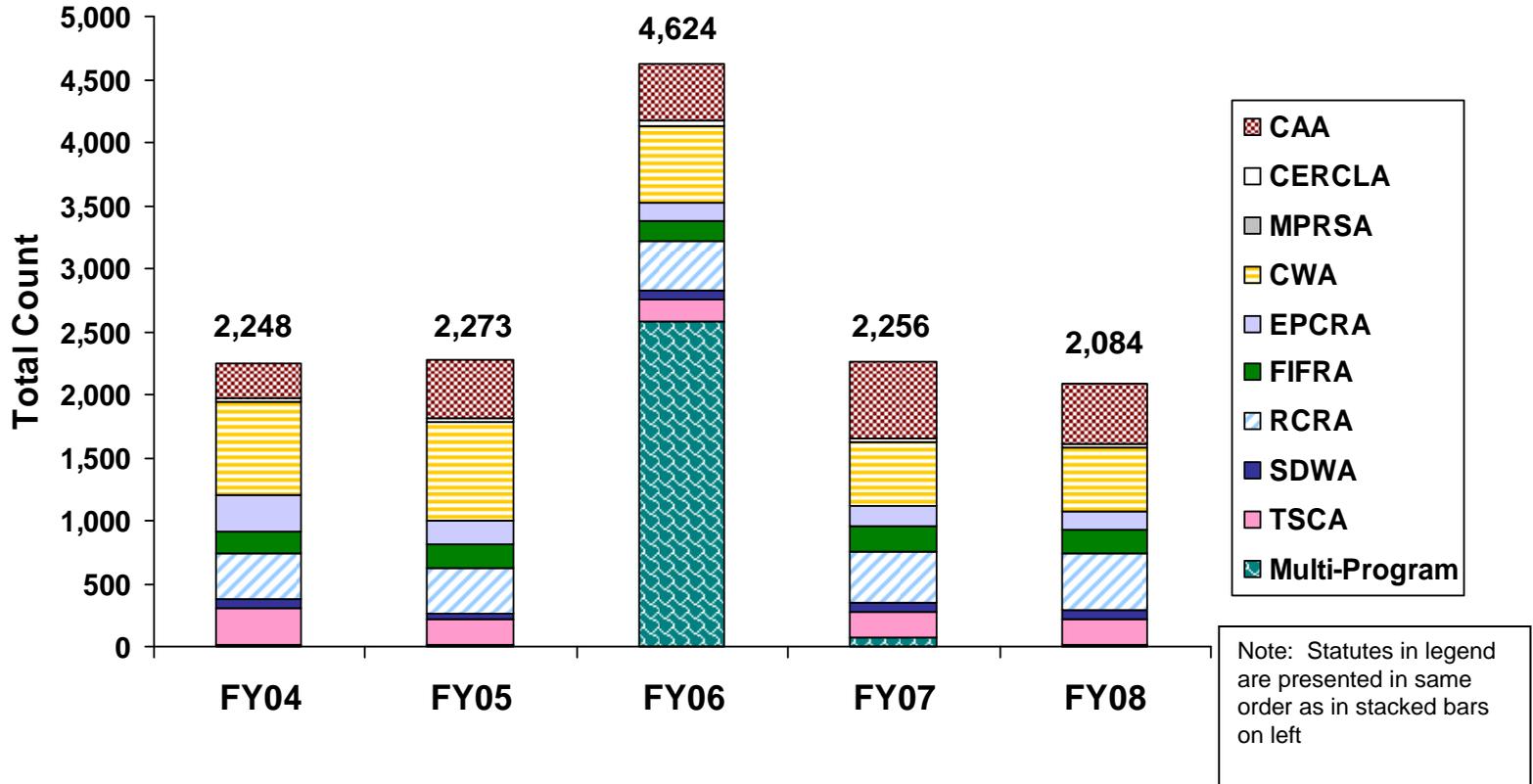
FY2008 Data Source: Integrated Compliance Information System (ICIS), October 11, 2008; data source for previous fiscal years: ICIS



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Concluded EPA Enforcement Actions

EPA Final Administrative Penalty Orders Issued Total and by Statute



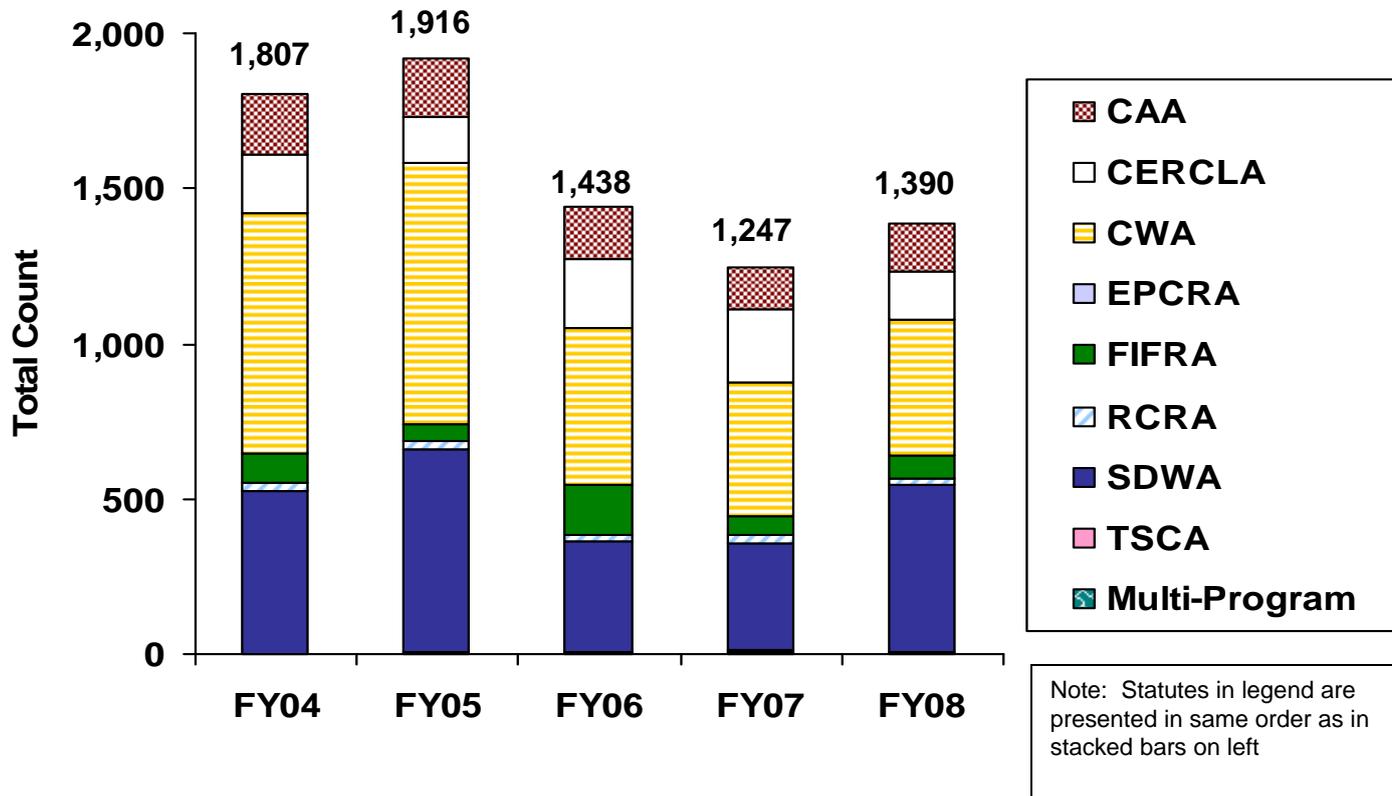
FY2008 Data Source: Integrated Compliance Information System (ICIS), October 11, 2008; data source for previous fiscal years: ICIS



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Concluded EPA Enforcement Actions

EPA Administrative Compliance Orders Issued Total and by Statute



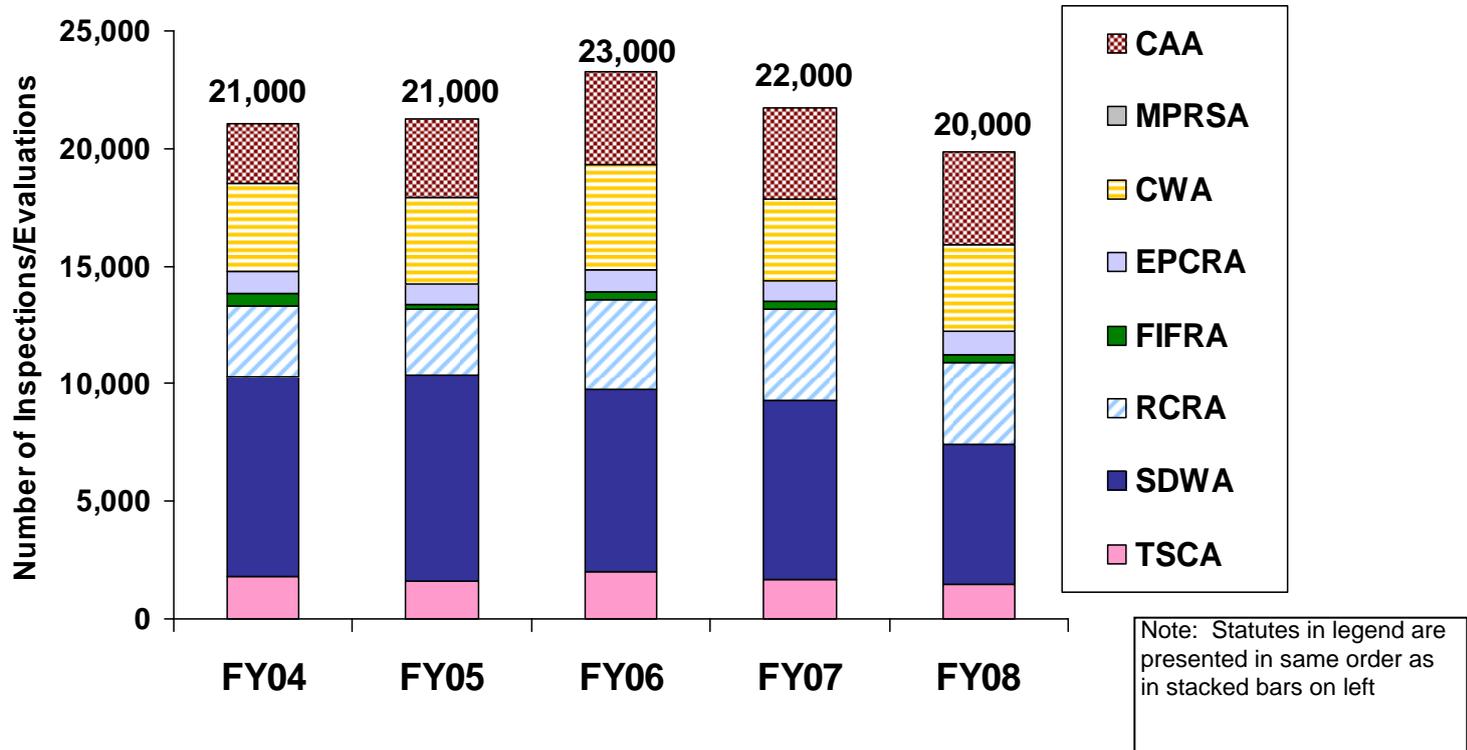
FY2008 Data Source: Integrated Compliance Information System (ICIS), October 11, 2008; data source for previous fiscal years: ICIS



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Compliance Monitoring

Number of Inspections - Evaluations Conducted by EPA



Note: In FY 2008, 334 Inspections were conducted by tribal inspectors using federal credentials, an important addition to the inspections conducted by EPA. Inspections conducted by tribes using federal credentials are done "on behalf" of the Agency, but are not an EPA activity.
 Note: The numbers of EPA Civil Investigations for the last five FYs are: 455 (FY 04), 397 (FY 05), 354 (FY 06), 346 (FY 07) and 222 (FY 08).

FY2008 Data Source: Integrated Compliance Information System (ICIS), legacy databases, and manual reporting, October 11, 2008.
 Data source for previous fiscal years: ICIS, legacy databases, and manual reporting

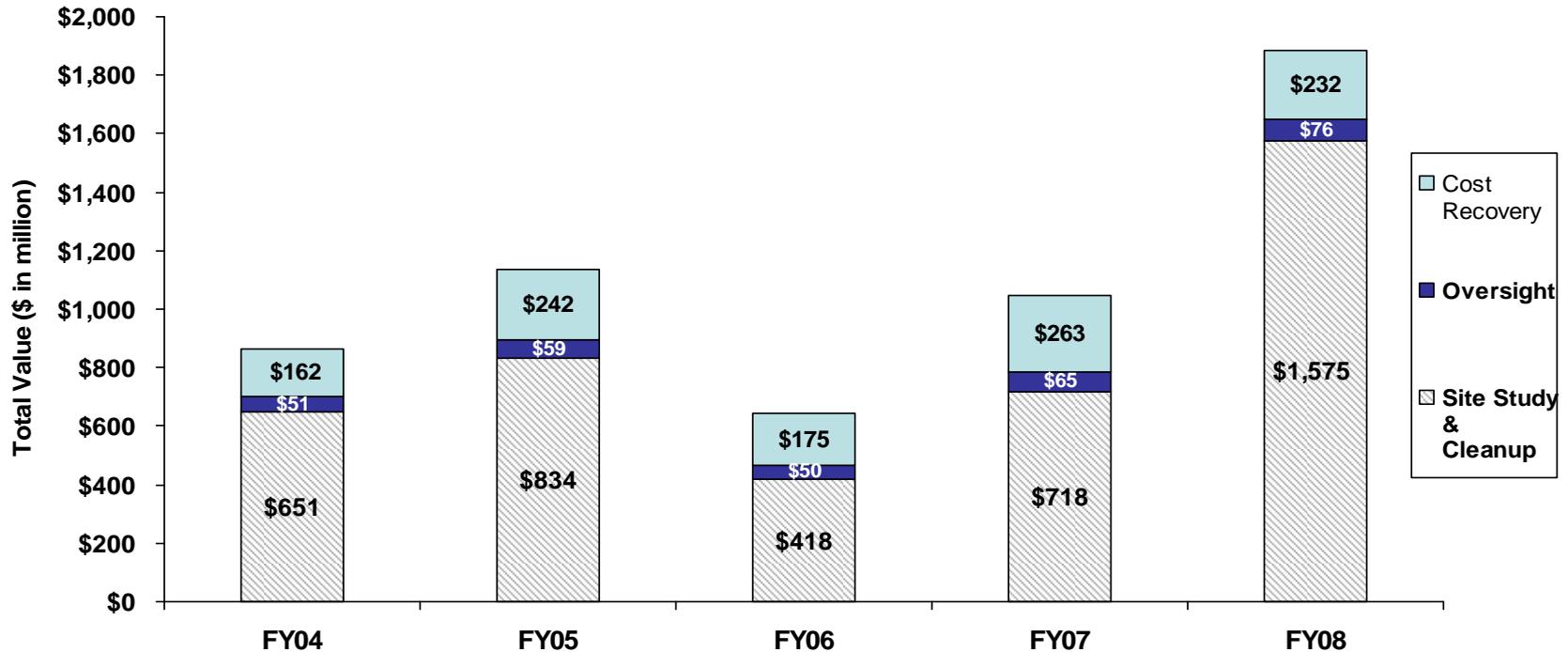


FY 2008 Enforcement & Compliance Annual Results

Results from Concluded EPA Enforcement Actions

Private Party Commitments for Superfund Site Study & Clean up, Oversight & Cost Recovery (\$ million)

(Inflation Adjusted to FY 08 Dollars)



Note: All prior FY dollar figures in this report are adjusted to reflect the current value in FY 2008 dollars based on the monthly rate of inflation as determined by the U.S. Department of Labor Consumer Price Index for All Urban Consumers.

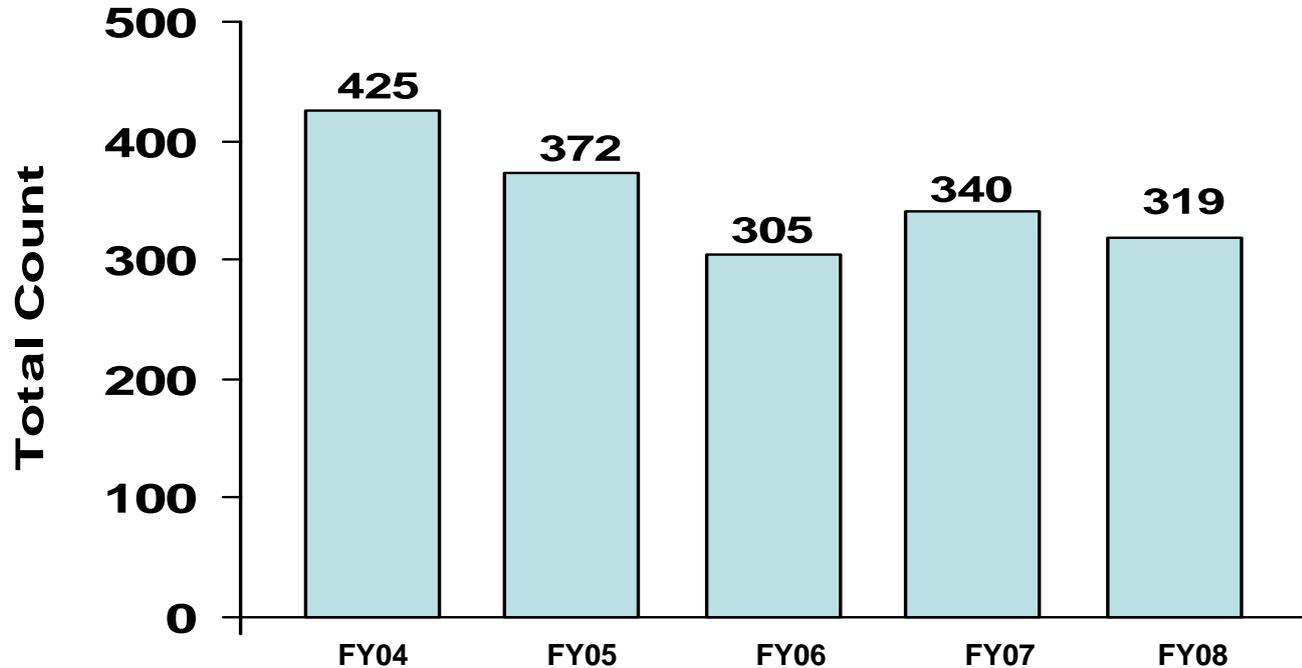
Note: Totals include "allowed claims" under bankruptcy settlements.



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Criminal Enforcement Program

Environmental Crime Cases Initiated



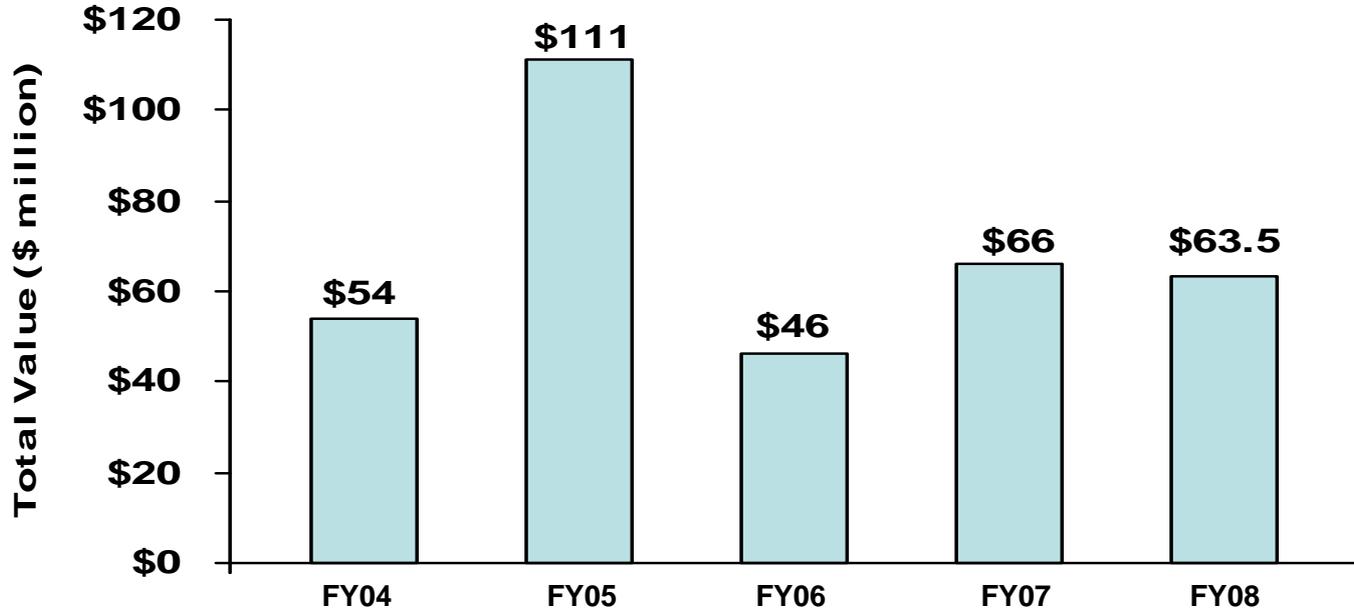
FY2008 Data Source: Criminal Case Reporting System, October 11, 2008; Source for previous years: annual Criminal Case Reporting System data



FY2008 Enforcement & Compliance Annual Results Criminal Enforcement Program

Sentencing Results
Value of Fines and Restitution
(\$ million)

(Inflation Adjusted to FY 08 Dollars)



Note: All prior FY dollar figures in this report are adjusted to reflect the current value in FY 2008 dollars based on the monthly rate of inflation as determined by the U.S. Department of Labor Consumer Price Index for All Urban Consumers.

FY2008 Data Source: Criminal Case Reporting System, October 11, 2008; Source for previous years: annual Criminal Case Reporting System data

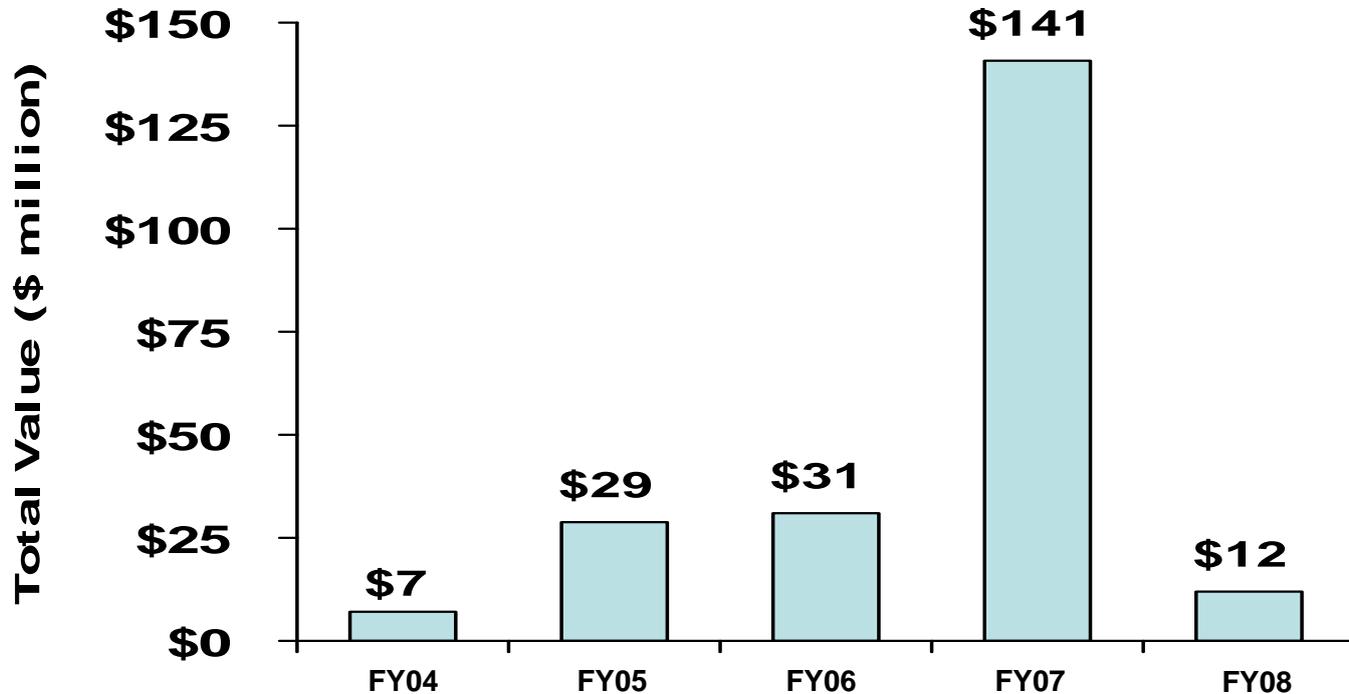


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Criminal Enforcement Program

Sentencing Results (continued)

Court Ordered Environmental Projects (\$ million)
(Inflation Adjusted to FY 08 Dollars)

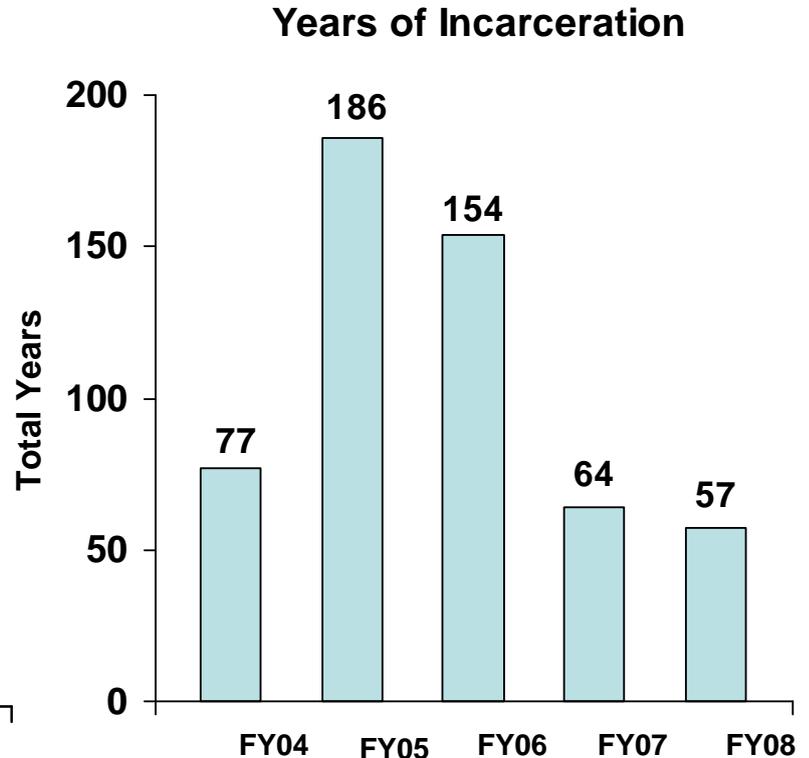
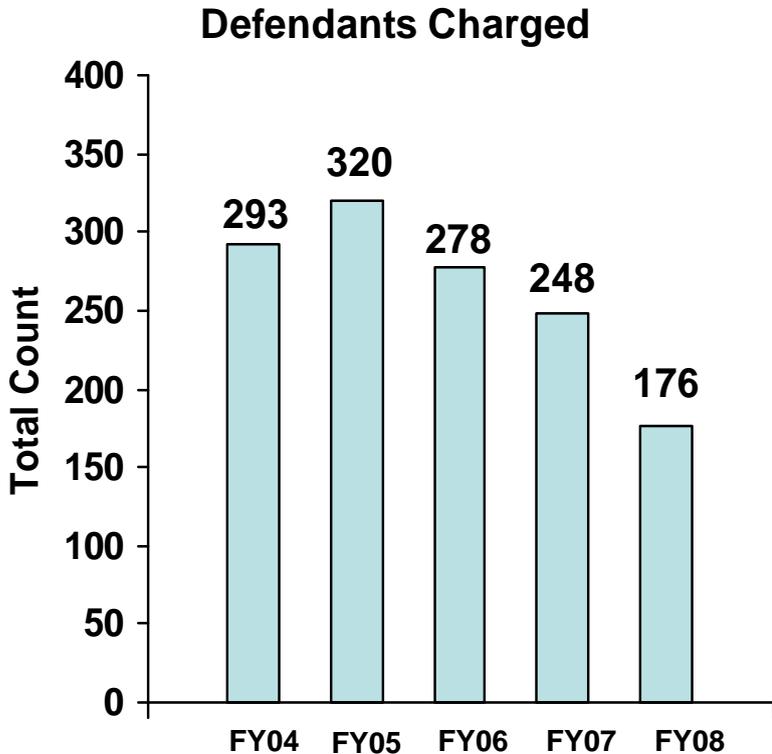


Note: All prior FY dollar figures in this report are adjusted to reflect the current value in FY 2008 dollars based on the monthly rate of inflation as determined by the U.S. Department of Labor Consumer Price Index for All Urban Consumers.



FY2008 Enforcement & Compliance Annual Results

Criminal Enforcement Program



Note: The 248 defendants charged in FY 2007 is different than the number which appeared on last year's report (226). Last year's number failed to include the defendants in several additional cases that were also charged during FY 2007.

FY2008 Data Source: Criminal Case Reporting System, October 11, 2008; Source for previous years: annual Criminal Case Reporting System data

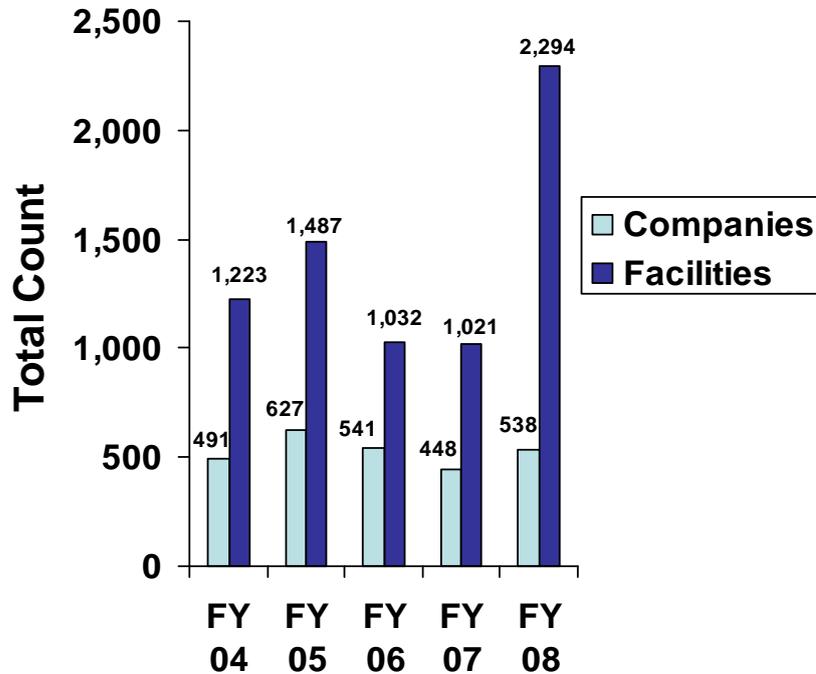


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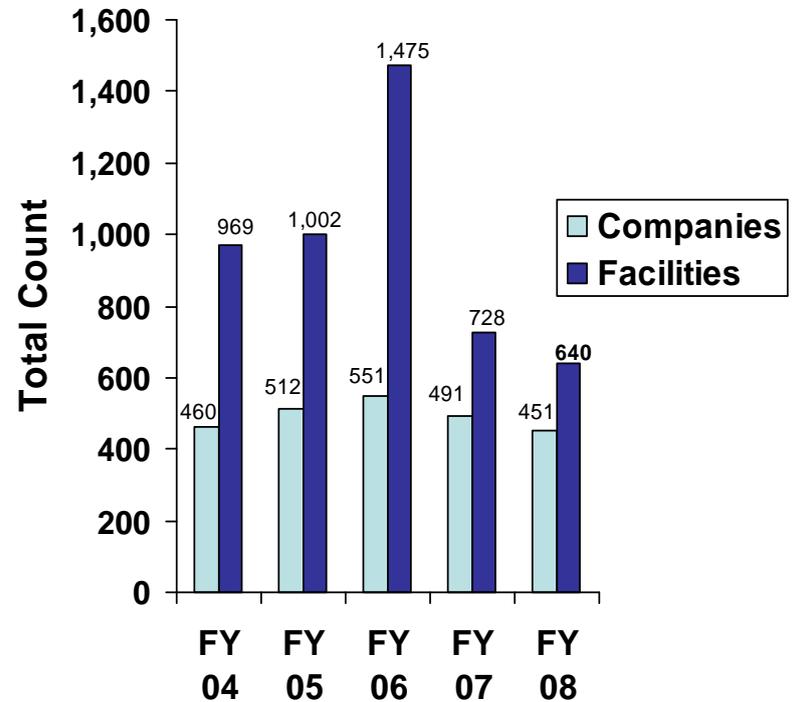
Concluded EPA Enforcement Actions

EPA Voluntary Disclosure Programs

Voluntary Disclosures Initiated



Voluntary Disclosures Resolved

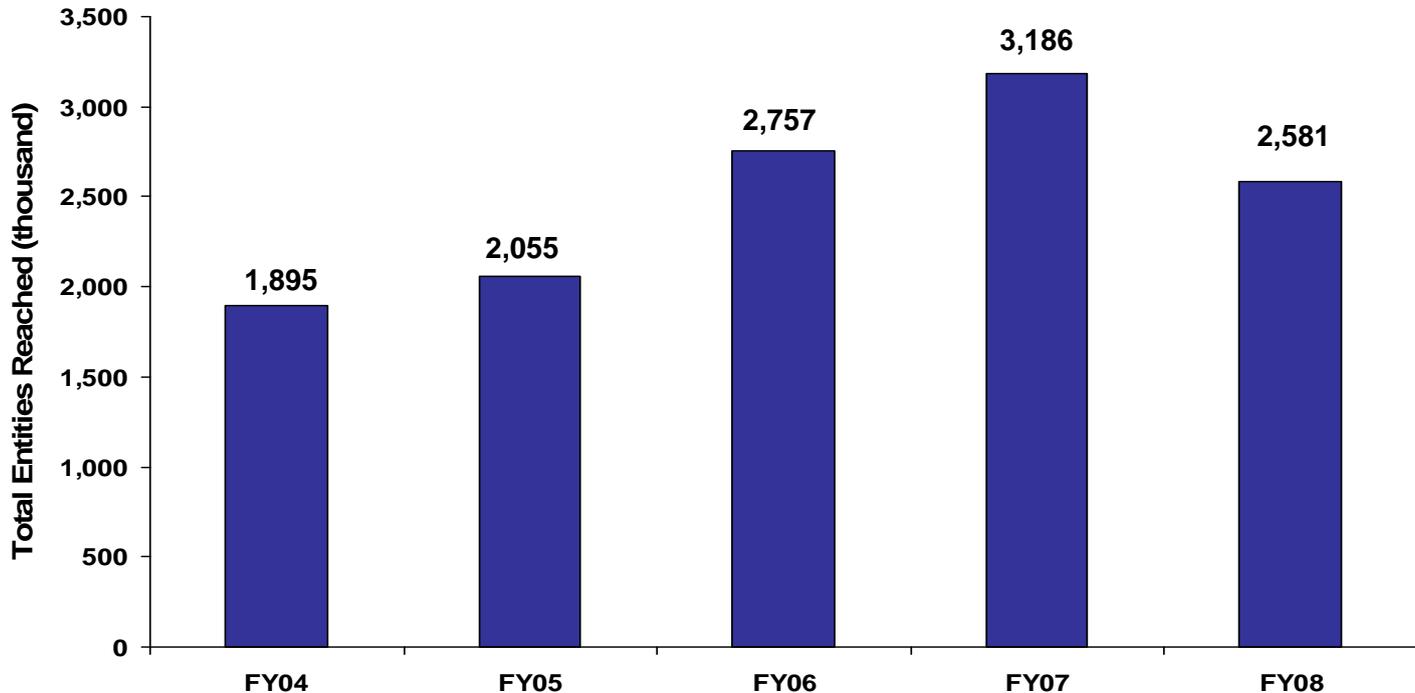


Data Source: Integrated Compliance Information System (ICIS), October 11, 2008; data source for previous fiscal years: ICIS



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Entities Reached with EPA Compliance Assistance



Note: EPA provides assistance using a variety of tools including workshops, facility visits, posting web-based information, responding to specific calls about regulations, etc.

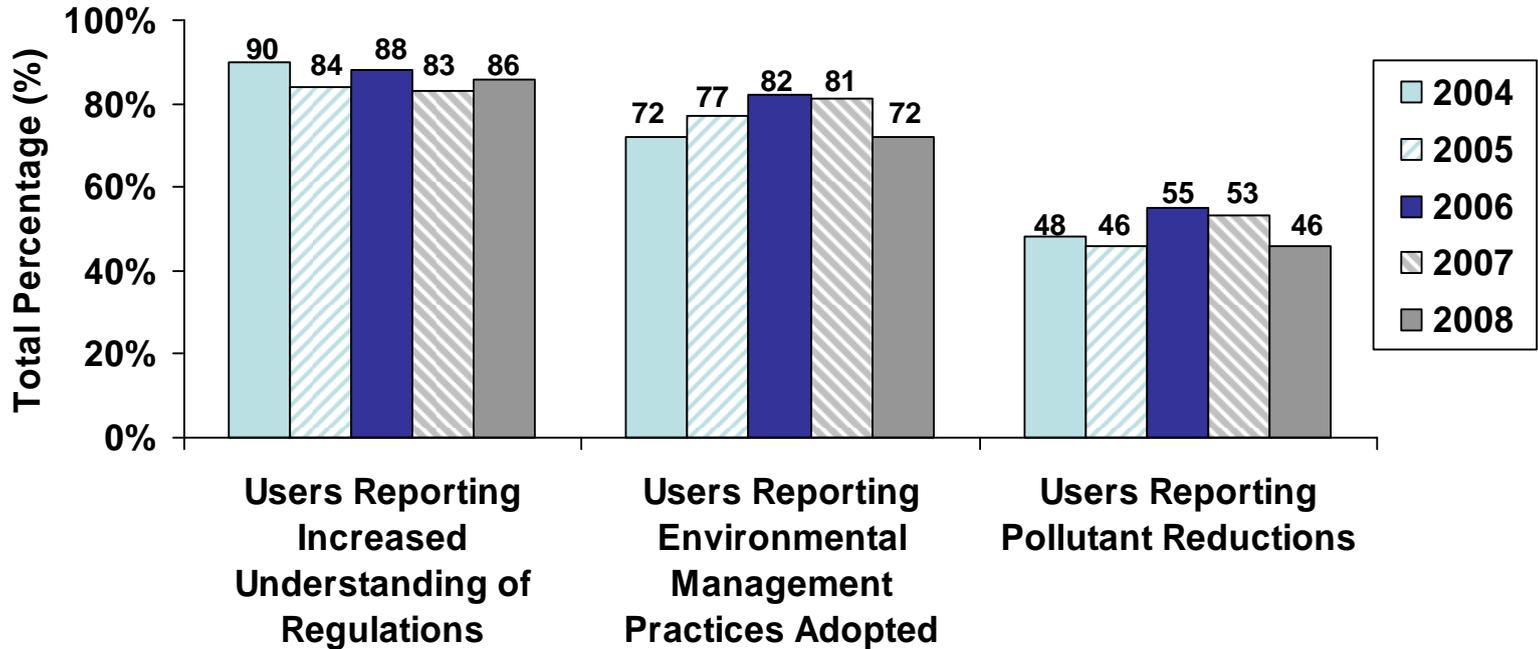
Note: The decrease in numbers of entities reached from FY07 to FY08 is primarily a result of a measurement change to improve how we count entities reached through EPA's web-based assistance.

FY2008 Data Sources: Integrated Compliance Information System (ICIS), October 11, 2008 and on-line usage report; data source for previous fiscal years: ICIS and on-line usage reports



FY2008 Enforcement & Compliance Annual Results

Outcomes from EPA's 16 Web-Based Compliance Assistance Centers



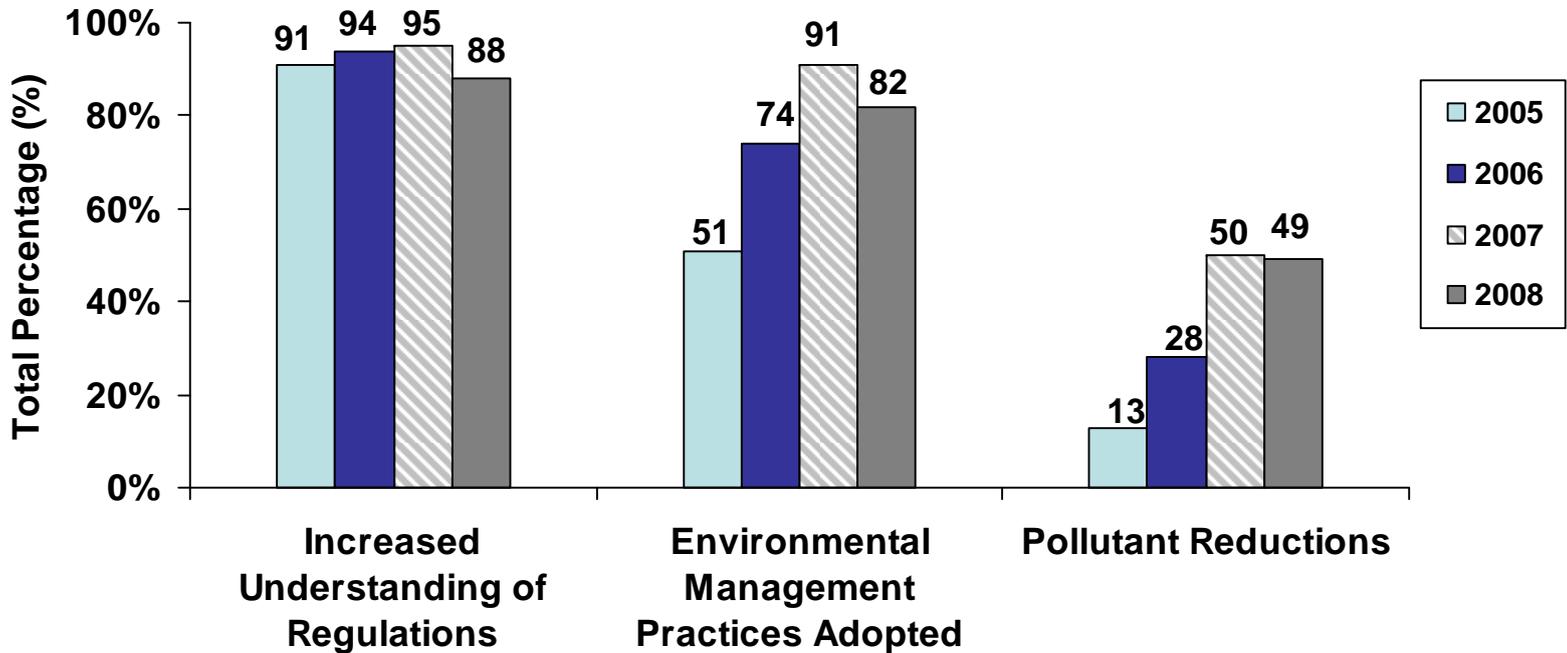
FY2008 Data Source: On-line surveys completed during FY2008. The number of Centers has changed from year to year, currently there are 16.

Disclaimer: These measures are not calculated from a representative sample of the regulated entity universe. The percentages are based, in part, on the number of regulated entities that answered affirmatively to these questions on voluntary surveys. The percentages do not account for the number of respondents who chose not to answer either these questions or the survey.



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Outcomes from EPA's Direct Compliance Assistance Provided to Regulated Entities



FY2008 Data Source: ICIS

A correction to the database in FY 2007 improved the accuracy of FY 2007 – FY 2008 year's data.

Disclaimer: minor corrections have been made to previous years' data. Also, these measures are not calculated from a representative sample of the regulated entity universe. The percentages are based, in part, on the number of regulated entities that answered affirmatively to these questions on voluntary surveys. The percentages do not account for the number of respondents who chose not to answer either these questions or the survey.



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Acronyms – Statute and Abbreviations/Section Description

CAA	Clean Air Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act (aka “Superfund”)
CWA	Clean Water Act
EPCRA	Emergency Planning & Community Right-to-Know Act
FIFRA	Federal Insecticide, Fungicide and Rodenticide Act
MPRSA	Marine Protection, Research, and Sanctuaries Act
RCRA	Resource Conservation & Recovery Act
SDWA	Safe Drinking Water Act
TSCA	Toxic Substances Control Act
Title 18	U.S. Criminal Code - Crimes and Criminal Procedure



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Definitions

- **Complying Actions:** Direct, preventative or site management practice actions which owners of a violating facility take in response to an enforcement action [in order to attain compliance with environmental laws or regulations]. (Source: Guide to Calculating Environmental Benefits of Enforcement Cases: FY 2005 CCDS Update)
- **Concluded EPA Enforcement Actions:** Civil enforcement actions which require violators to come into compliance with applicable environmental laws and/or pay a civil penalty; includes Final Administrative Penalty Orders, Administrative Compliance Orders and Civil Judicial Consent Decrees. (Source: Guide to Calculating Environmental Benefits of Enforcement Cases: FY 2005 CCDS Update) Superfund concluded actions also include orders for clean up with non-potentially responsible parties such as bona-fide prospective purchasers.
- **Cost Recovery:** A process by which the United States seeks to recover money it previously expended in performing any response action from parties liable under CERCLA Section 107(a). Recoverable response costs include both direct and indirect costs. (Source: PRP Search Manual, Office of Site Remediation Enforcement, September 2003; available at: www.epa.gov/compliance/cleanup/superfund/prpmanual.html)
- **Court Ordered Environmental Projects (formerly known as Judicially Mandated Projects):** Court ordered environmental projects represent the monetary value of environmentally beneficial projects or other activities from



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Definitions (continued)

criminal cases that a judge orders defendants to pay for or conduct themselves. Although part of a defendant's formal sentence, they are distinct from, and in addition to, fines and restitution. (Source: Criminal Case Reporting System (CCRS) manual)

- **Default Judgment:** A judgment entered against a defendant who has failed to plead or otherwise defend against the plaintiff's claim. (Source: Black's Law Dictionary 449, 8th ed. 2004)
- **Direct Compliance Assistance:** EPA defines "direct compliance assistance" as those activities for which there is an opportunity for one-on-one interaction between an EPA assistance provider and a regulated entity. These activities provide the best opportunities to measure and report outcomes, and include: facility visits/revisits, ongoing facility-specific work, workshops/ trainings, presentations/meetings, and responses to inquiries. (Source: *2005 Guidance Addendum for Reporting Compliance Assistance in the Integrated Compliance Information System*, USEPA, March 2005, page 6)
- **Direct Complying Actions:** Actions taken in response to an EPA enforcement action that treat, reduce, or eliminate a pollutant or emission/discharge stream to reduce/eliminate human health exposure or



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Definitions (continued)

environmental impact (e.g., source reduction, cleaning up a spill, installing new pollution control equipment, remediating contaminated soil or water, etc.). The direct action will have a more immediate positive effect on the environment. (Source: Guide to Calculating Environmental Benefits of Enforcement Cases: FY 2005 CCDS Update)

- **Entities Reached with Compliance Assistance:** The total number of units receiving compliance assistance including: facilities, units of government (e.g. local, tribal, or state) or individuals reached by EPA assistance. (Source: 2005 Guidance Addendum for Reporting Compliance Assistance in the Integrated Compliance Information System", March 2005)
- **Environmentally Beneficial Projects (also known as Supplemental Environmental Projects or SEPs):** Projects which a defendant/respondent agrees to undertake as part of some civil enforcement case settlements, but which a defendant/respondent is not legally required to perform. (Source: Final Supplemental Environmental Project Policy, April 10, 1998)
- **EPA-Sponsored Web-based Compliance Assistance Centers:** EPA-sponsored Websites developed in partnership with industry, academic institutions, environmental groups and other agencies to serve as a "first stop" for sector-based environmental compliance information. (For additional information: www.assistancecenters.net)



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Definitions (continued)

- **Fines and Restitution:** Fines are the monetary amount assessed by a court of law against a defendant for violations of criminal law. Restitution is the monetary amount assessed, also by a court of law, to repay or compensate for loss, damage or injury. (Source: Criminal Case Reporting System (CCRS) manual.)
- **Fiscal Year (FY):** The fiscal year for the federal government begins on October 1 and ends September 30 of the following year.
- **Hazardous Waste Reduced, Minimized or Disposed Of:** Direct environmental benefits achieved as the result of EPA's enforcement actions in the form of pounds of hazardous waste that are either reduced, minimized or disposed of.
- **Health Benefits:** The estimated human health benefits from reducing PM_{2.5}, SO₂ and NO_x was generated by the Office of Air Quality Planning and Standards Organization (OAQPS) using the mean values of benefit per ton estimates based on source/pollutant combinations from the Laden et al. (2006) epidemiological study discussed in the Ozone NAAQS Final Regulatory Impact Analysis (RIA). U.S. EPA, 2006. In FY2006 and FY2007 EPA based its estimates on the Pope et al. (2002) study. EPA believes that Laden et al. (2006) currently represents the best available science for this specific policy context. The benefit-per-ton estimates only estimate human health benefits from reductions in PM_{2.5} and the reductions in SO₂ and NO_x that contribute to PM_{2.5}. SO₂ and NO_x react with other chemicals in the air,



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Definitions (continued)

forming small particles that are also PM_{2.5}. The estimates do not include a variety of other potential benefits from reducing PM, SO₂ and NO_x such as health benefits from reducing ozone exposure, ecological benefits, exposure, ecological benefits, visibility benefits, or other unquantified/nonmonetized health benefits. Therefore, these estimates may underestimate the total benefits. For more detailed information on how the benefit per ton estimates were generated, please see U.S. EPA, 2008. Technical Support Document: Calculating Benefit Per-Ton estimates, Ozone NAAQS Docket #EPA-HQ-OAR-2007-0225-0284 at www.regulations.gov.

- **Inflation Adjusted to FY 2008 Dollars:** All prior FY dollar figures in this report are adjusted to reflect the current value in FY 2008 dollars based on the monthly rate of inflation as determined by the U.S. Department of Labor Consumer Price Index for All Urban Consumers.
- **“Integrated Compliance Information System” (ICIS):** ICIS is a web-based data system which integrates federal [civil] enforcement and compliance data. With the exception of some inspection data and CERCLA data, it is the database of record for all federal [civil] enforcement and compliance data. (Source: ICIS User Guide, August 2002)
- **Investments in Pollution Control and Clean Up (including court ordered injunctive relief or complying actions):** The cost or value of the actions taken or to be taken by a defendant/respondent in response to an enforcement action (often pursuant to the order of a court of administrative



FY2008 Enforcement & Compliance Annual Results

Definitions (continued)

hearing officer) to achieve and maintain compliance with applicable environmental laws (e.g., installing a new pollution control device to reduce air pollution, or preventing emissions of a pollutant from occurring in the first place.) (Source: ECHO Data Dictionary – Total Complying Action Cost)

- **Legacy Databases:** General reference to several EPA enforcement/compliance single program databases including EPA databases Comprehensive Environmental Response, Compensation & Liability Information System (CERCLIS), Resource Conservation and Recovery Act Information (RCRAInfo), Air Facility System (AFS), and Permit Compliance System (PCS).
- **Multi-Program Case:** A civil enforcement case that addresses more than one environmental problems under different programs. This could include violations of different programs within one media or statute. (Source: EPA Office of Enforcement and Compliance Assurance Guidance: “Revised Approach for Counting EPA Enforcement Case Initiations and Conclusions”, September 2003)
- **NOx:** Nitrogen Oxide, or NOx is the generic term for a group of highly reactive gases, all of which contain nitrogen and oxygen in varying amounts. The primary manmade sources of NOx are motor vehicles, electric utilities, and other industrial, commercial, and residential sources that burn fuels. They can cause a variety of environmental and health impacts. (Source: <http://www.epa.gov/air/urbanair/nox/what.html>)
- **Oversight (under Superfund):** The dollar value of all costs billed to the Potentially Responsible Parties (PRPs) by EPA for overseeing clean up work that



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Definitions (continued)

is performed and paid for by PRPs at specific Superfund sites. (Source: PRP Search Manual, Office of Site Remediation Enforcement, September 2003; available at:

www.epa.gov/compliance/cleanup/superfund/prpmanual.html)

- **Particulate Matter (PM):** Particulate matter is the generic term for a broad class of chemically and physically diverse substances that exist as discrete particles (liquid droplets or solids) over a wide range of sizes. Particles originate from a variety of stationary and mobile sources as well as natural sources. (Source: Review of the National Ambient Air Quality Standards for Particulate Matter: Policy Assessment of Scientific and Technical Information, OAQPS Staff Paper – First Draft)
- **Pollutant Reductions:** A calculation is made to estimate the reduction of pollutants anticipated as a result of an enforcement action. Since the enforcement action is designed to return the facility to compliance and bring the pollutant level down to the permitted level, the calculation of the pollution reduction is based on a comparison of the current level of pollutant release (an amount above the allowable permit level) against the permit level. Because calculations are based on one year's worth of data during the first year when all required controls are implemented, our pollutant reduction numbers are considered conservative estimates. In the context of compliance assistance, pollution reduction is based on the percentage of survey respondents who affirmatively respond to the



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Definitions (continued)

question asking if they reduced, treated, or eliminated pollution as a result of EPA or EPA-sponsored compliance assistance. (Source: Case Conclusions Data Sheet Training Booklet, USEPA Office of Enforcement and Compliance Assurance, August 2004; ICR 1860.03 for Assessment of Compliance Assistance Projects, 2005)

- **Private Party:** This includes: 1) Potentially Responsible Party (PRP) - Any individual or entity including owners, operators, transporters, or generators who may be liable under CERCLA Section 107(a). and 2) Non- PRP - A non-labile individual or entity that did not cause or contribute to contamination such as a bona-fide prospective purchaser. (Source: PRP Search Manual, Office of Site Remediation Enforcement, September 2003; available at: www.epa.gov/compliance/cleanup/superfund/prpmanual.html)
- **Referral:** A request from EPA to Department of Justice (DOJ) asking that DOJ file an action in court against a party or parties for specified violations of environmental law.
- **Site Study and Clean up:** Actions taken at a site to characterize the site and deal with a release or threatened release of a hazardous substance that could affect human health or the environment. The term “clean up” is sometimes used interchangeably with the terms remedial action, removal action, response action, or corrective action. (Source: PRP Search Manual, Office of Site Remediation Enforcement, September 2003; available at: www.epa.gov/compliance/cleanup/superfund/prpmanual.html)



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Definitions (continued)

- **SOx:** Sulfur Oxide, or SOx, is the term for a family of gases that dissolve easily in water. Sulfur dioxide belongs to this family of gases which are primarily formed when fuel containing sulfur (mainly coal and oil) is burned. Fuel combustion, largely from coal-fired power plants, accounts for most of the total emissions. They can cause a variety of environmental and health impacts. (Source: <http://www.epa.gov/air/urbanair/so2/what1.html>)
- **Supplemental Environmental Projects (SEPs):** see Environmentally Beneficial Projects
- **Supplemental Referral:** A civil enforcement matter referred to DOJ that supplements or supercedes a case that was previously referred. The referral may contain a request to DOJ for enforcement of the existing case or seek to amend the existing case by adding additional counts of violations (e.g., violations at different facilities, violations under different statutes) or by adding additional defendant/respondent/PRP(s). Source: OECA guidance issued September 2003, “Revised Approach for Counting EPA Enforcement Case Initiations and Conclusions”)
- **Volume of Contaminated Media Addressed:** The volume of environmental media (e.g., soil or water) that is subject to a RCRA, TSCA Superfund response action, the contaminated media has been cleaned up and such that, at the conclusion of the action, human health and the environment are protected.
Contaminated soil - refers to the volume of soil subject to removal or



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Definitions (continued)

treatment.

Contaminated water - refers to the volume of physical aquifer (not water, but entire formation) that will be addressed by the response or corrective action or volume of biosolids (and other sludge) that will be treated or the water (navigable/surface) amounts that will be treated. (Source: Measures and Calculations for Volume of Contaminated Medium Addressed, November 2003)

- **Voluntary Disclosure Program (Voluntary Disclosures Initiated/Voluntary Disclosures Resolved):** A voluntary disclosure initiated is a written disclosure, provided voluntarily to EPA by a regulated entity, that contains the identity and location of facilities and description of the violations being disclosed. A voluntary disclosure is resolved through an administrative action, judicial action, or Notice of Determination issued by EPA to address a voluntary disclosure received from a regulated entity. Penalties for violations identified to EPA through a voluntary disclosure may be mitigated pursuant to EPA's Audit Policy, Small Business Policy or a program-specific penalty policy. (Source: ICIS Data Guidance, Sept. 10, 2004, Region 5 Lead Workgroup)



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Prior Year Enforcement Dollar Values Adjusted to FY 2008 Dollars

Complying Action Values + SEPs		
Fiscal Year	Estimated Investments in Pollution Control and Clean up plus Environmentally Beneficial Projects Nominal (in Millions)	Estimated Investments in Pollution Control and Clean up plus Environmentally Beneficial Projects Inflation Adjusted to FY 08 Dollars (in Millions)
04	\$4,800	\$5,500
05	\$10,200	\$11,300
06	\$5,000	\$5,400
07	\$10,600	\$11,000

Penalty Values							
Fiscal Year	Judicial Penalties Nominal (in Millions)	Judicial Penalties Inflation Adjusted to FY 08 Dollars (in Millions)	Administrative Penalties Nominal (in Millions)	Administrative Penalties Inflation Adjusted to FY 08 Dollars (in Millions)	Total Penalties Nominal (in Millions)	Total Penalties Inflation Adjusted to FY 08 Dollars (in Millions)	
04	\$121.2	\$138.7	\$27.6	\$31.6	\$149	\$170	
05	\$127.2	\$140.9	\$26.7	\$29.6	\$154	\$171	
06	\$82	\$87	\$42	\$45	\$124	\$132	
07	\$40	\$42	\$31	\$32	\$71	\$74	

Superfund Enforcement Values							
Fiscal Year	Cost Recovery Nominal (in Millions)	Cost Recovery Inflation Adjusted to FY 08 Dollars (in Millions)	Oversight Nominal (in Millions)	Oversight Inflation Adjusted to FY 08 Dollars (in Millions)	Site Study and Cleaned up Nominal (in Millions)	Site Study and Clean up Inflation Adjusted to FY 08 Dollars (in Millions)	
04	\$142	\$162	\$45	\$51	\$569	\$651	
05	\$218	\$242	\$53	\$59	\$753	\$834	
06	\$164	\$175	\$47	\$50	\$391	\$418	
07	\$252	\$263	\$62	\$65	\$688	\$718	

Criminal Enforcement Values					
Fiscal Year	Fines & Restitution Nominal (in Millions)	Fines & Restitution Inflation Adjusted to FY 08 Dollars (in Millions)	Court Ordered Environmental Projects Nominal (in Millions)	Court Ordered Environmental Projects Inflation Adjusted to FY 08 Dollars (in Millions)	
04	\$47	\$54	\$6	\$7	
05	\$100	\$111	\$26	\$29	
06	\$43	\$46	\$29	\$31	
07	\$63	\$66	\$135	\$141	

Note: Most of the numbers displayed in this document are rounded. As a result, adding the figures presented here may not produce exactly the same totals as those displayed in other EPA documents.