# 6
# Compliance

Department of Defense (DoD) operations must comply with applicable laws, regulations, Executive Orders (E.O.'s), Final Governing Standards (FGS), and agreements designed to protect human health and the environment. The DoD Compliance Program policy objectives are to:

- Reduce compliance costs
- Plan, program, budget, and execute projects and activities that facilitate compliance
- Use commercially proven solutions to achieve compliance
- Promote the development and use of innovative solutions
- Conduct internal and external compliance assessments
- Correct identified issues promptly

## Compliance at a Glance

Fiscal Year 2009 Funding: **$1.5 billion**

Program Accomplishments:

- Decreased hazardous air pollutant (HAP) emissions **27 percent** during Calendar Year (CY) 2008
- Increased percentage of compliant water permits to **94 percent** during first half of CY2009
- Provided safe drinking water to **96 percent** of the DoD population during first half of CY2009
- Decreased new enforcement actions **9 percent** since Fiscal Year (FY) 2005

## Applicable Requirements

The Compliance Program extends to all DoD operations, activities, and installations within the United States and its territories, including government-owned and contractor-operated facilities. DoD's environmental activities extend to but are not limited to projects implemented to comply with regulations promulgated under the:

- Clean Air Act (CAA)
- Clean Water Act (CWA)
- Emergency Planning and Community Right-to-Know Act (EPCRA)
- National Environmental Policy Act (NEPA)
- Resource Conservation and Recovery Act (RCRA)
- Safe Drinking Water Act (SDWA)
- Solid Waste Disposal Act (SWDA)
- Toxic Substances Control Act (TSCA)

Key compliance policies include:

- DoD Instruction (DoDI) 4715.6 "Environmental Compliance"
- DoDI 4715.5 "Management of Environmental Compliance at Overseas Installations"
- October 2004 DoD Memorandum: "Revised Pollution Prevention and Compliance Metrics"

## Management Practices

DoD uses several management practices to achieve Compliance Program objectives. For example, DoD develops and implements policies and guidance; designates "Executive Agents" to lead key environmental initiatives; establishes metrics; implements policy for reporting, planning, programming, budgeting, and executing compliance activities; and conducts internal reviews to evaluate program performance.

DoD uses a prioritized selection process to fund compliance projects and activities. This process is based upon specific criteria (i.e., current compliance status, pending regulatory requirements, and anticipated compliance deadlines) and ensures DoD meets its program objectives in a cost-effective manner.

Treaties, international agreements, and DoD policy manage DoD's environmental compliance outside the United States. In most cases, the United States has formal international agreements (e.g., a Status of Forces Agreement) to respect host nations' laws. Congress mandated that DoD establish a consistent policy for environmental compliance at overseas installations. After revision, this policy is DoDI 4715.5, which requires DoD to compare environmental standards applicable to military installations based on U.S. law with similar laws and standards of host nations. The more protective of the two becomes the FGS. This policy demonstrates DoD's respect for host nation law.

At DoD, compliance is not a standalone environmental program. Rather, it is part of a systemic approach to achieve environmental objectives. DoD integrates compliance with other programs such as Pollution Prevention, and Environmental Management Systems (EMSs). DoD prefers to achieve compliance by implementing pollution prevention activities and does so when practicable and feasible.

## Chapter Contents

This chapter summarizes performance trends for the following Compliance Program initiatives:

- Air Quality
- Clean Water
- Safe Drinking Water
- Uniform National Discharge Standards (UNDS)
- Enforcement Actions

Related to the Compliance Program, Chapter 2 summarizes DoD's EMS Program and Chapter 7: Pollution Prevention summarizes DoD's Ozone-Depleting Substance (ODS), Toxics Release Inventory (TRI), Solid Waste, and Hazardous Waste Programs.

## Air Quality

*During CY2008, DoD demonstrated the following performance:*

- *Decreased hazardous air pollutant emissions* ***27 percent***
- *Decreased sulfur dioxide emissions* ***23 percent***
- *Decreased particulate matter emissions* ***12 percent***

### Overview

DoD operations are subject to many requirements designed to protect and enhance air quality. These operations must obtain operating permits for regulated emissions and comply with permit terms and conditions. The two primary requirements are the CAA emission limits for hazardous air pollutants (HAPs) and criteria pollutants.

DoD implements internal policies, procedures, program objectives, and best management practices to reduce emitted pollutants and protect air quality. DoD's Clean Air Act Services Steering Committee, led by the Navy, supports these efforts.

### Evaluation Criteria

DoD set two goals to focus compliance efforts and protect air quality:

- Manage air pollution emissions to protect public health, meet national clean air standards, and maximize operational flexibility
- Make appropriate investments to promote the attainment of National Ambient Air Quality Standards and enhance the training/operations flexibility in maximizing the use of air resources

DoD installations with CAA operating permits calculate and report their criteria pollutant and HAP emissions to their permitting authority. DoD aggregates and analyzes these reported emissions and compares them to previous year reported emissions in order to establish overall air emission trends across DoD. DoD measures emissions for the six criteria pollutants (and their regulated precursors where applicable) and 188 HAPs as an overall indicator to help evaluate progress toward these goals. The six criteria pollutants are:

- Carbon monoxide (CO)
- Nitrogen dioxide (reported as $NO_X$)
- Particulate matter (regulated as $PM_{10}$ and $PM_{2.5}$)
- Ozone ($O_3$) (reported as precursor emissions of volatile organic compounds (VOCs) and $NO_X$)
- Sulfur dioxide ($SO_2$)
- Lead (Pb)

This section does not summarize performance for other operational permits or other aspects of the air quality program such as CAA Title VI controls for ODSs.

### Performance Summary

DoD installations reported emitting 1,225 tons of HAPs in CY2008, a 27 percent decrease from CY2007 (Figure 6-1). HAP emissions decreased because of a significant reduction in the use of certain enamel coatings, solvents, degreasers, and fuel additives at DoD installations.

Particulate matter (ten microns) emissions decreased 12 percent between CY2007 and CY2008, largely due to reduced open burn/open detonation (OB/OD) operations at Army industrial installations (Figure 6-2). OB/OD operations and their related emissions can vary substantially during a given time period, and are driven by a combination of demilitarization work load and funding at the installation. In CY2008, sulfur dioxide and carbon monoxide emissions decreased 23 percent and 21 percent, respectively. DoD's lead emissions increased 26 percent in CY2008 due to increased industrial activity in support of Army operations.

Appendix B, Section 6 contains Air Quality performance data by DoD Component.

**Figure 6-1** DoD Hazardous Air Pollutants from Stationary Sources (U.S. and Territories & Overseas)

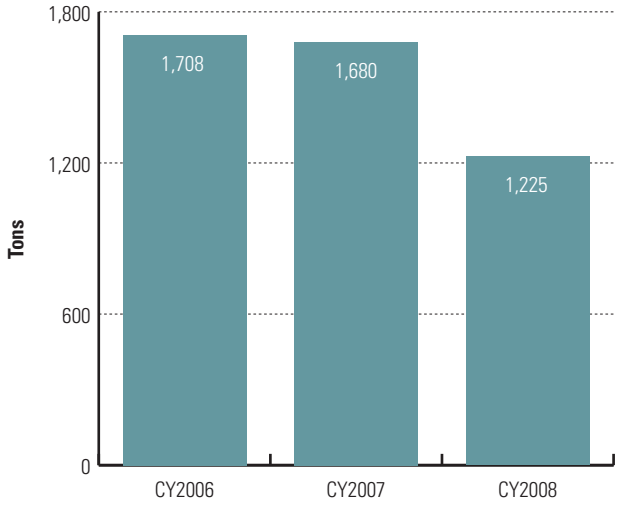
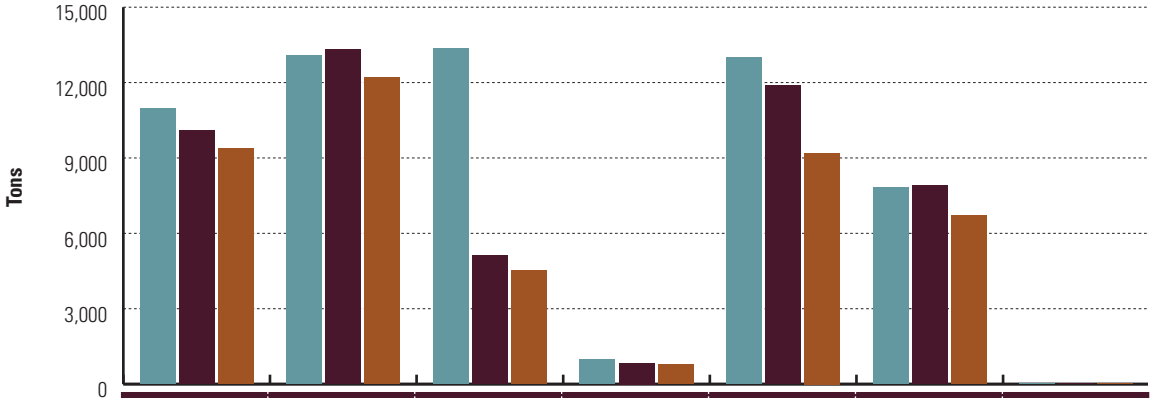


**Figure 6-2** DoD Criteria Pollutant Emissions from Stationary Sources (U.S. and Territories & Overseas)




| | VOCs | $NO_x$ | $PM_{10}$ | $PM_{2.5}$ | $SO_2$ | CO | Lead |
|---|---|---|---|---|---|---|---|
| CY2006 | 10,969 | 13,088 | 13,357 | 979 | 12,996 | 7,810 | 12 |
| CY2007 | 10,124 | 13,598 | 5,118 | 843 | 11,930 | 8,433 | 11 |
| CY2008 | 9,368 | 12,210 | 4,515 | 767 | 9,195 | 6,701 | 14 |

## Clean Water

*During the first half of CY2009, DoD demonstrated the following performance:*

- *Increased the percentage of CWA compliant water discharge permits from **93 to 94 percent***
- *Increased the percentage of overseas compliant wastewater discharge facilities from **80 to 85 percent***

### Overview

DoD operations generate point source and non-point source discharges to surface waters. These discharges can adversely affect surface water quality. DoD's point source discharges and pollutants commonly originate from on-site sewage treatment plants, industrial wastewater treatment facilities, and combined sewer overflows. DoD's non-point source discharges and pollutants commonly originate from stormwater runoff that flows across construction sites, range operations, shipyards, and military installations.

Most operations that generate discharges must obtain permits for the discharges of regulated pollutants and comply with permit terms and conditions. DoD's two most common water pollution control permits are administered via the CWA and include:

- National Pollution Discharge Elimination System (NPDES) permits for sanitary sewage, industrial wastewater, and stormwater discharges
- Discharges of sanitary sewage and pre-treated industrial wastewaters to the local Publicly Owned Treatment Works

This section does not summarize DoD performance with other clean water requirements administered under:

- CWA §404 (permits for the disposal of dredged or fill material into navigable waters)
- The Marine Protection, Research, and Sanctuaries Act (MPRSA)
- The Act to Prevent Pollution from Ships (APPS)

### Evaluation Criteria

DoD's clean water goal is to manage domestic industrial wastewater and stormwater effectively to protect public health, meet water quality standards, and maximize operational flexibility. DoD reports two performance metrics; one for its operations within the United States and its territories, and one for overseas operations:

United States and Territories:

- Percentage of water pollution control permits compliant with applicable requirements

Overseas:

- Percentage of facilities discharging regulated wastewater or stormwater compliant with FGS

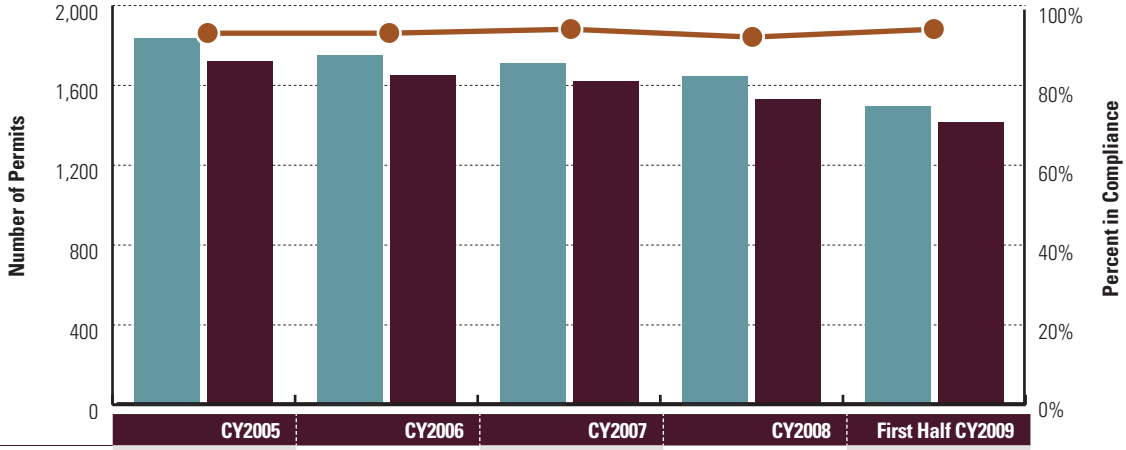
## Performance Summary

Ninety-four percent of the 1,498 DoD water pollution control permits were compliant in the first half of CY2009 (Figure 6-3). Moreover, DoD's compliance trend for the past five years has been above 92 percent. From CY2005 through the first half of CY2009, the total number of CWA permits continued to decrease, primarily due to base closures and the privatization of certain utilities.

Eighty-five percent of the 236 overseas DoD facilities discharging wastewater or stormwater were compliant with FGS in the first half of CY2009 (Figure 6-4). Overseas compliance increased approximately 26 percent from CY2005 to the first half of CY2009. During the same period, the total number of discharging facilities continued to decrease.

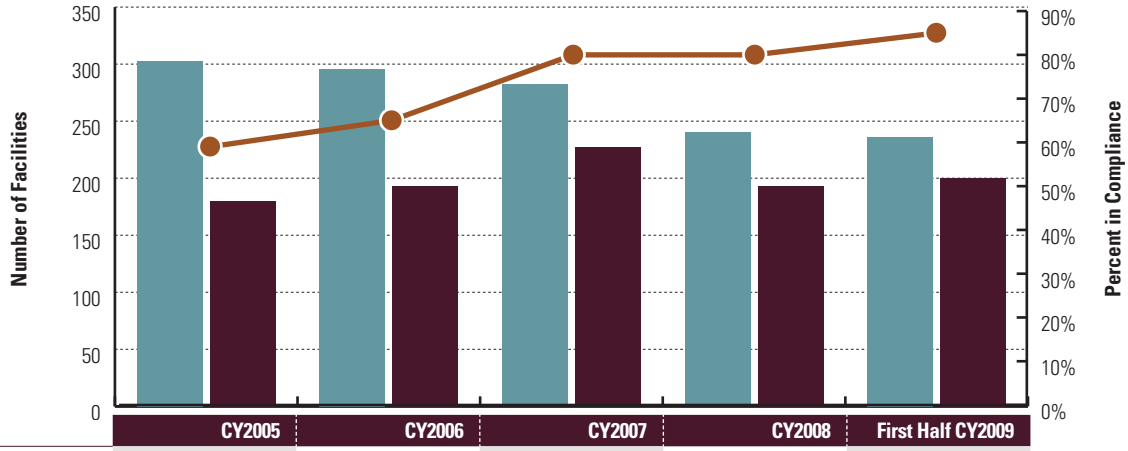
Appendix B , Section 6 contains Clean Water performance data by DoD Component.

**Figure 6-3** Percent of DoD Clean Water Pollution Control Permits Compliant with Clean Water Act (U.S. and Territories)




| | CY2005 | CY2006 | CY2007 | CY2008 | First Half CY2009 |
|---|---|---|---|---|---|
| Total Permits | 1,837 | 1,750 | 1,711 | 1,647 | 1,498 |
| Permits in Compliance | 1,721 | 1,653 | 1,620 | 1,528 | 1,415 |
| Percent in Compliance | 94% | 94% | 95% | 93% | 94% |

**Figure 6-4** Percent of DoD Facilities Discharging Wastewater that are Compliant with Final Governing Standards (Overseas)




| | CY2005 | CY2006 | CY2007 | CY2008 | First Half CY2009 |
|---|---|---|---|---|---|
| Total Number of Facilities | 303 | 296 | 282 | 240 | 236 |
| Facilities in Compliance | 180 | 193 | 227 | 193 | 200 |
| Percent in Compliance | 59% | 65% | 80% | 80% | 85% |

## Safe Drinking Water

*During the first half of CY2009, DoD demonstrated the following performance:*

- *Increased the percentage of DoD population served by DoD public water systems that meet established drinking water requirements from **89 to 96 percent***

### Overview

DoD supplies drinking water on-site to 3.4 million men, women, and children living and working on DoD installations. In the United States and its territories, these water systems must comply with National Primary Drinking Water Regulations administered under the SDWA. DoD's overseas public water systems must comply with FGS. These limits ensure potable water meets relevant drinking water standards.

### Evaluation Criteria

DoD's public water system goals are to:

- Provide safe drinking water to protect the health of people living and working on its installations
- Distribute public water in compliance with relevant standards to 100 percent of the DoD population
- Support readiness by conserving resources through efficient management of drinking water assets

DoD evaluates safe drinking water for both U.S. and overseas operations in a single performance metric:

- Percent of DoD population served by a DoD public water system compliant with applicable requirements (i.e., SDWA and FGS)

### Performance Summary

In the first half of CY2009, DoD provided drinking water to over 3.4 million people worldwide. Less than 4 percent of the DoD population received notices sometime during the year that the water might not meet regulatory standards. For populations that received public notification, DoD remedied the issue immediately or, when necessary, provided alternative drinking water. The 96.4 percent compliance rate is above EPA's Government Performance and Results Act (GPRA) goal of 91 percent for municipal drinking water compliance in 2011 and above the 2009 national average of 92.1 percent.

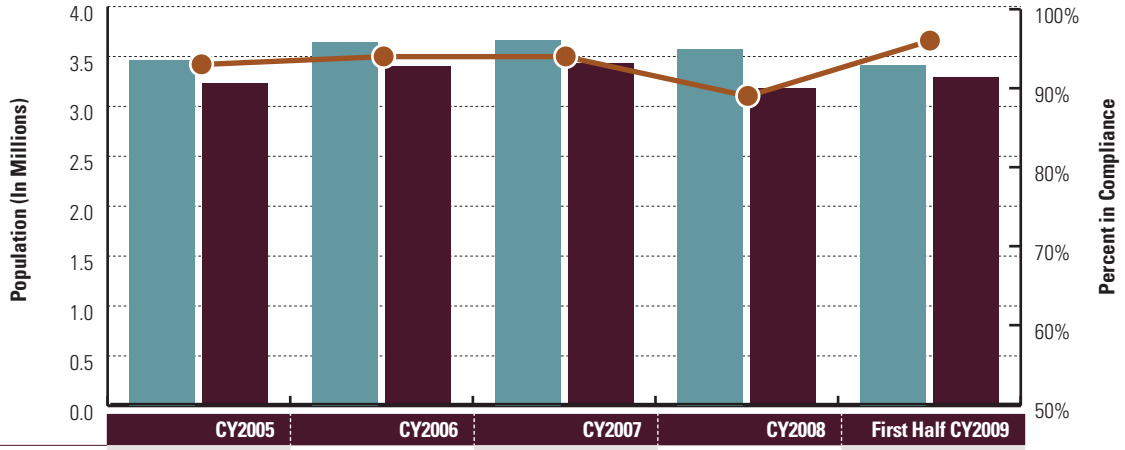
Appendix B, Section 6 contains Safe Drinking Water performance data by DoD Component.

## Uniform National Discharge Standards

### Overview

The UNDS Program mission is to provide a comprehensive system for regulating discharges incidental to the normal operation of Armed Forces vessels (i.e., Army [excluding the Army Corps of

**Figure 6-5** Percent of DoD Population Served by DoD Public Water Systems in Compliance with Applicable Requirements (U.S. and Territories & Overseas)




| | CY2005 | CY2006 | CY2007 | CY2008 | First Half CY2009 |
|---|---|---|---|---|---|
| Population Served by DoD Public Water Systems (millions) | 3.5 | 3.6 | 3.7 | 3.6 | 3.4 |
| Population Served by Compliant DoD Public Water Systems (millions) | 3.2 | 3.4 | 3.4 | 3.2 | 3.3 |
| Percent Compliant* | 93% | 94% | 94% | 89% | 96% |

* Compliance rates are calculated from exact populations

Engineers], Navy, Air Force, Military Sealift Command, and Coast Guard). The Navy and the U.S. Environmental Protection Agency (EPA) have been jointly working to develop and propose national standards that would control discharges from Armed Forces vessels. DoD's commitment to protect surface water quality goes beyond mere compliance with existing regulations, as proven by the 12-year investment in the UNDS program.

The UNDS program develops standards that will enhance environmental protection of coastal waters when finalized. The standards will encourage environmentally sound management practices, help standardize training for crews to perform missions, and influence future vessel construction.

### Evaluation Criteria

DoD and EPA published the UNDS Phase I final rule on May 10, 1999. This required controls for 25 discharges from Armed Forces vessels. During Phase II, currently underway, the Navy and EPA, in consultation with the other Armed Forces stakeholders, are developing marine pollution control device performance standards that will control the 25 discharges identified in Phase I. The Phase II standards will be issued in five batches to facilitate the rule making process. This is preferable to conducting analyses and developing standards for all 25 discharges at one time. This process will allow the Navy and EPA to more efficiently conduct technical analyses and develop discharge standards.

### Performance Summary

In FY2009, the Armed Services continued to develop the Phase II, Batch One discharge standards and supporting documentation. The Navy, in conjunction with the other Armed Forces stakeholders, completed drafts of the UNDS Phase II, Batch One preamble, proposed rule (including discharge standards), technical development document, and the administrative record. EPA is expected to review the Navy's proposed regulations in early FY2010. EPA will work jointly with the Navy to reach consensus on a proposed Batch One rules.

During Phase III, DoD, in consultation with EPA and the Coast Guard, will establish requirements for the design, installation, and operation of marine pollution control devices. DoD will ensure these requirements meet performance standards set forth in Phase II.

## Enforcement Actions

*During FY2009, DoD demonstrated the following performance:*

- *Decreased new enforcement actions **5 percent** despite a **9 percent** increase in inspections*
- *Decreased open enforcement actions **17 percent***

### Overview

DoD is committed to full and sustained compliance with applicable federal, state, and local environmental requirements. Despite DoD's efforts to comply, events occur that cause non-compliance. During these events, regulatory agencies may issue enforcement actions. DoDI 4715.6 defines an enforcement action as any formal, written notification by EPA or other authorized federal, state, or local environmental regulatory agency of the violation of any applicable statutory or regulatory requirement. An open enforcement action is an enforcement action that has been issued, but is not yet resolved by the end of the reporting period (FY). A new enforcement action is an enforcement action received during the reporting period (FY). The date of an enforcement action is the date the installation receives formal written notification from the regulating authority. In general, the most serious enforcement actions may include fines or non-monetary penalties that the regulatory agency assesses.

DoD tracks Compliance Program enforcement actions administered under the authority of the following environmental statutes and the equivalent program for overseas enforcement actions:

- Clean Air Act (CAA) (air quality)
- Clean Water Act (CWA) (wastewater and stormwater)
- Safe Drinking Water Act (SDWA) (drinking water)
- Resource Conservation and Recovery Act (RCRA) Subpart C (hazardous waste)
- RCRA Subpart D (solid waste)
- RCRA Subpart I (underground storage tanks)

### Evaluation Criteria

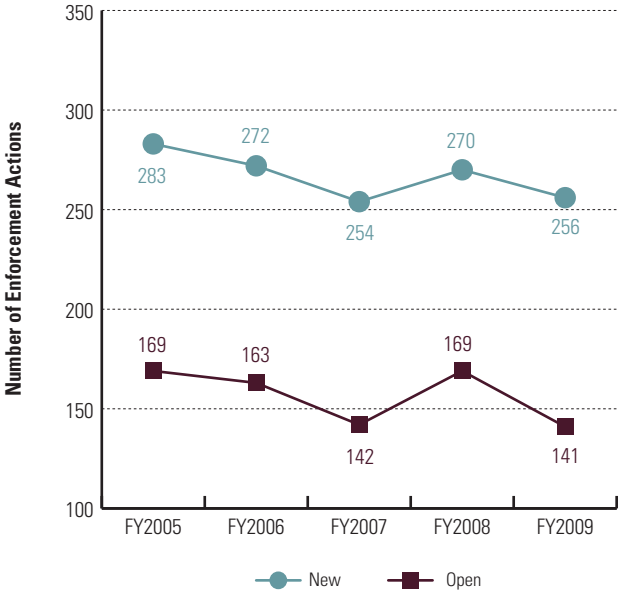
DoD's enforcement action goals are to:

- Maintain full and sustained compliance with environmental laws (U.S. and territories) and environmental obligations (overseas)
- Maintain robust self-audit and corrective action programs
- Identify and correct non-compliance in a timely manner

DoD reports the following metrics to evaluate performance toward enforcement action goals:

- Number of new and open DoD enforcement actions (U.S. and territories and overseas)
- Number of new inspections (U.S. and territories and overseas)
- Number of new enforcement actions by statute (U.S. and territories and overseas)
- Total monetary fines and penalties

**Figure 6-6** Number of New and Open DoD Enforcement Actions (U.S. and Territories & Overseas)




## Performance Summary

In FY2009, DoD reported 256 new enforcement actions, a 5 percent decrease from FY2008 and a 10 percent decrease from FY2005. Additionally, DoD reported 141 open enforcement actions, a 17 percent decrease from both FY2008 and FY2005 (Figure 6-6).

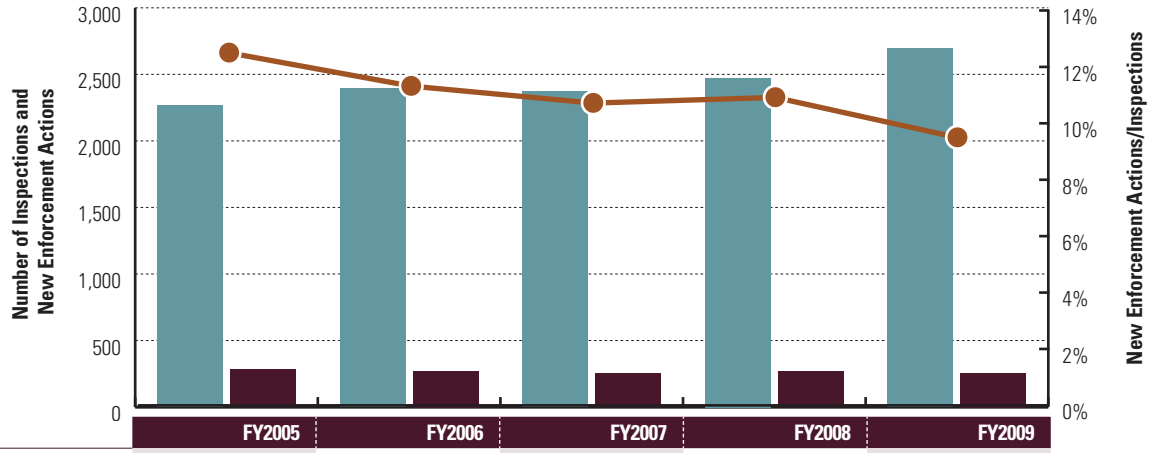
Despite a nine percent increase in inspections in FY2009, DoD continued to decrease the number of new enforcement actions (Figure 6-7). Nine percent of the 2,696 inspections resulted in new enforcement actions in FY2009, down from 11 percent in FY2008 and 13 percent in FY2005.

In FY2009, new enforcement actions for CWA, RCRA/C, RCRA/I, and SDWA decreased, while new enforcement actions for CAA, RCRA/D, and Other enforcement actions increased. CAA, CWA, and SDWA continue to be the top three statutes for which DoD receives new enforcement actions (Figure 6-8).

Local fines decreased 43 percent, and EPA fines decreased 48 percent in FY2009 (Figure 6-9). The State of New Mexico assessed Kirtland Air Force Base a fine of $4.2 million for a RCRA/C violation, which accounts for the significant increase in FY2009 state fines. However, both parties negotiated payment down to $2,100. The terms of the negotiation included two Settlement Agreement Projects: $10.4 million for a new fuels facility upgrade, and $450,000 for an Open Burn Unit Closure Action.

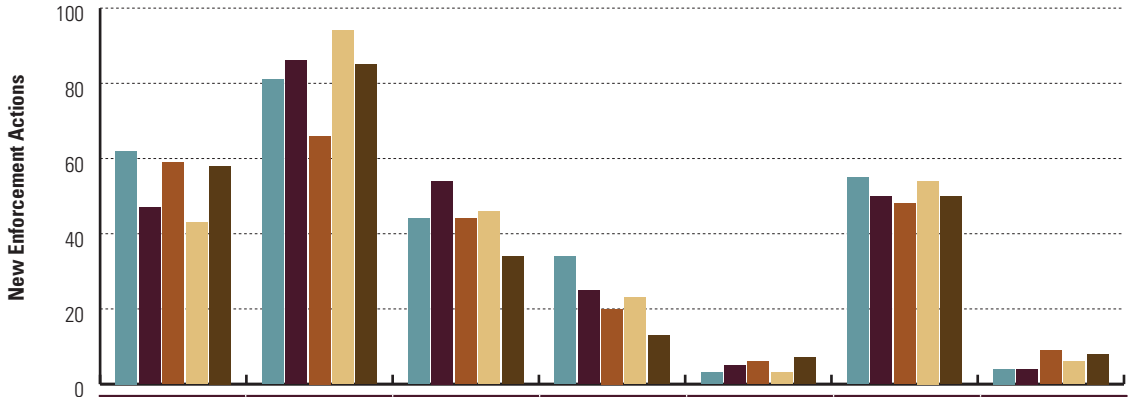
Appendix B, Section 6 contains enforcement action performance data by DoD Component.

**Figure 6-7** Number of Inspections (U.S. and Territories & Overseas)




| | FY2005 | FY2006 | FY2007 | FY2008 | FY2009 |
|---|---|---|---|---|---|
| Number of Inspections | 2,264 | 2,394 | 2,370 | 2,473 | 2,696 |
| New Enforcement Actions | 283 | 272 | 254 | 270 | 256 |
| New Enforcement Actions/ Inspections | 13% | 11% | 11% | 11% | 9% |

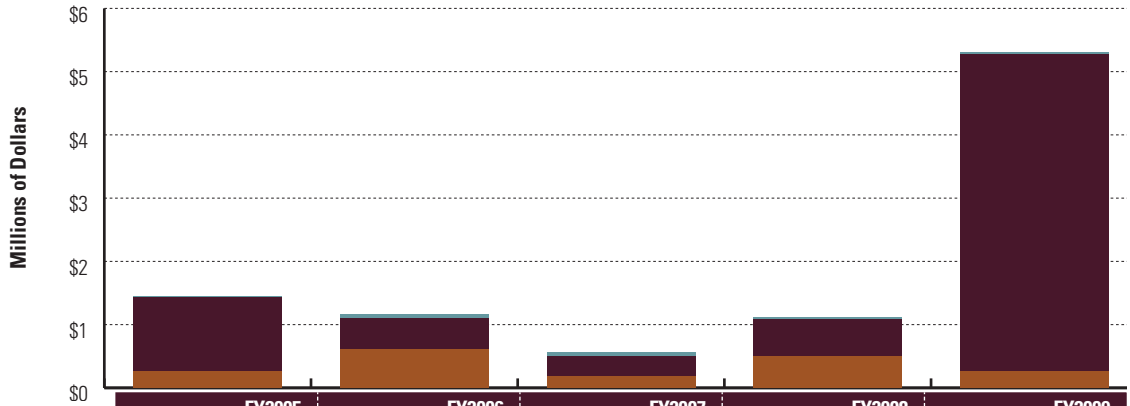
**Figure 6-8** Number of New Enforcement Actions by Statute (U.S. and Territories)*




| | CAA | CWA | RCRA/C | RCRA/I | RCRA/D | SDWA | Other |
|---|---|---|---|---|---|---|---|
| FY2005 | 62 | 81 | 44 | 34 | 3 | 55 | 4 |
| FY2006 | 47 | 86 | 54 | 25 | 5 | 50 | 4 |
| FY2007 | 59 | 66 | 44 | 20 | 6 | 48 | 9 |
| FY2008 | 43 | 94 | 46 | 23 | 3 | 54 | 6 |
| FY2009 | 58 | 84 | 34 | 13 | 7 | 50 | 8 |
| **FY2005-FY2009 Change** | **-6%** | **4%** | **-23%** | **-62%** | **133%** | **-9%** | **100%** |
| **FY2008-FY2009 Change** | **35%** | **-11%** | **-26%** | **-43%** | **133%** | **-7%** | **33%** |

* Excludes new overseas enforcement actions by media.

**Figure 6-9** DoD Monetary and Non-Monetary Fines and Penalties Assessed (millions of dollars)




| | FY2005 | FY2006 | FY2007 | FY2008 | FY2009 |
|---|---|---|---|---|---|
| Local | $0.02 | $0.07 | $0.07 | $0.04 | $0.02 |
| State | $1.17 | $0.50 | $0.32 | $0.59 | $5.02 |
| EPA | $0.25 | $0.60 | $0.18 | $0.50 | $0.26 |
| **Total** | **$1.45** | **$1.17** | **$0.57** | **$1.12** | **$5.30** |