

**U.S. DEPARTMENT OF ENERGY
OFFICE OF ENFORCEMENT**



2006 ANNUAL REPORT

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INTRODUCTION

In late 2006, the Department of Energy created the Office of Health, Safety and Security (HSS) and expanded the responsibilities of the Office of Enforcement (HS-40). The Office of Enforcement now includes the Office of Worker Safety and Health Enforcement, the Office of Price-Anderson Enforcement, and the Office of Security Enforcement. The Price-Anderson enforcement program has been very successful in improving nuclear safety at DOE facilities and will be used as a model for the newly established worker safety and security enforcement programs. The 2007 Annual Report will include the progress and accomplishments of these programs.

Issuance of the 2006 Annual Report was delayed due to the priorities and expanded responsibilities of the new Office of Enforcement and changes in organization and management. It is our goal in the future to issue this report within three months of the end of the calendar year. We believe this report is important to the DOE community, other government agencies, and the public in providing information and promoting accountability on the progress, accomplishments, and focus of the enforcement program.

1. ANNUAL REPORT HIGHLIGHTS

This report describes the activities and accomplishments of the U.S. Department of Energy (DOE or Department) Office of Enforcement (HS-40) from January 1 through December 31, 2006. Topics covered in this annual report are:

- Enforcement cases
- Accomplishments and activities
- Concerns, changes, and improvements

A description of DOE's Enforcement Program can be found in the *Enforcement Process Overview* on the DOE Office of Enforcement web site at <http://www.hss.energy.gov/Enforce/index.cfm>.

The Office of Enforcement's mission is to promote overall improvement in the Department's nuclear safety, worker safety and health, and security programs through the management and implementation of the required enforcement programs. The use of incentives, and when necessary enforcement actions, will improve both contractor performance and compliance, as well as fulfill mission objectives. When DOE created the Office of Health, Safety and Security (HSS) in late 2006, the responsibilities of the enforcement program were expanded beyond the Office of Price-Anderson Enforcement to include the Office of Worker Safety and Health Enforcement, and Office of Security Enforcement. The enforcement model and approach developed for the Price-Anderson (or Nuclear Safety) enforcement program will be used as a model for the worker safety and security enforcement programs.

In 2006, DOE reviewed 235 nuclear and worker safety noncompliances reported into the Noncompliance Tracking System (NTS) and numerous issues and concerns from other sources, such as the Occurrence Reporting and Processing System (ORPS), employee concerns, and DOE line management. Notices of violation (NOVs) with assessed civil penalties totaling \$2,629,000 were issued to six DOE contractors for significant violations of DOE nuclear safety requirements. Three of these contractors were exempt from civil penalty by statute, resulting in \$2,238,500 of the assessed civil penalties being waived. (Recent changes in legislation have eliminated civil penalty exemptions when new contracts are issued.) DOE also granted \$319,000 of mitigation in determining the assessed civil penalties. In three additional cases, DOE elected to use discretion by issuing enforcement letters rather than NOVs for noncompliances to recognize contractors' proactive efforts in identifying and correcting noncompliances. The enforcement actions conducted in 2006 are described in section 2. Full text of all Enforcement Actions and Letters is available on the Office of Enforcement web site at <http://www.hss.energy.gov/enforce/>.

The Office of Enforcement completed four Price-Anderson Amendments Act (PAAA) program reviews this year and reviewed three additional PAAA program peer reviews conducted by the Energy Facility Contractors Group (EFCOG). The Office of Enforcement supports the EFCOG peer review initiative to promote the sharing of knowledge by the contractor community in order to improve safety and security programs. The program review results confirmed that most DOE contractors are meeting DOE expectations for identifying and reporting noncompliances. Future program reviews will include the worker safety and security disciplines. The Office of Enforcement does not intend to conduct program reviews of contractors that have undergone a comprehensive peer review. The specifics of how peer and program reviews will be integrated is the subject of Office of Enforcement/EFCOG discussions in 2007. Program reviews are discussed in greater detail later in this report.

Cooperative efforts between the Office of Enforcement and DOE Field and Program Offices, through their coordinators, continued to contribute strongly to the success of the enforcement program during 2006. The Office of Enforcement plans to continue working with the DOE and contractor coordinators to support the worker safety and health, and security enforcement programs. The Office of Enforcement also strongly recommends that contractors consider assigning a single coordinator to be responsible for all three enforcement program areas.

2. ENFORCEMENT CASES

Procedural requirements, processes, and policies for the enforcement program are set out in Title 10 of the *Code of Federal Regulations*, Part 820 (10 CFR 820) and its appendix A for nuclear safety enforcement, Part 851 subpart E and its appendix B for worker safety and health enforcement, and Part 824 and its appendix A for security enforcement. DOE enforces the following rules and requirements: 10 CFR 830 (subpart A, *Quality Assurance* and subpart B, *Safety Basis Requirements*); 10 CFR 835, *Occupational Radiation Protection*; 10 CFR 850, *Chronic Beryllium Disease Prevention Program*; 10 CFR 851, *Worker Safety and Health Program* (subpart B, *Program Requirements* and subpart C, *Specific Program Requirements*); 10 CFR 1016, *Safeguarding of Restricted Data*; 10 CFR 1045, *Nuclear Classification and Declassification*. All applicable DOE security and cyber security orders and manual requirements established by contract or in DOE-approved program plans that implement these rules also come under the purview of the enforcement program.

Other requirements, such as the *Information Requirements* provision of 10 CFR 820.11, may be enforced under the PAAA. Also, under 10 CFR 708, *Contractor Employee Protection*, DOE may take enforcement action against contractors that have retaliated against employees for raising safety concerns.

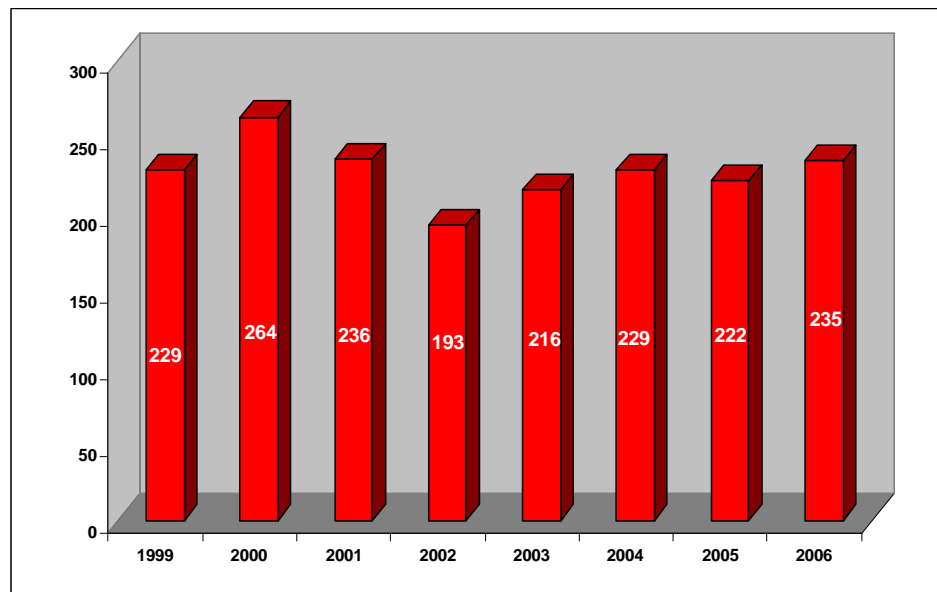
Noncompliance Reporting

The Office of Enforcement has established the NTS for voluntary reporting of nuclear and worker safety rule noncompliances. Security noncompliances are reported into the *Incident Tracking and Analysis Capability* (ITAC) system. DOE enforcement policies allow the use of discretion for most noncompliance conditions and require no enforcement action if contractors appropriately identify, report into NTS and ITAC, and correct noncompliance conditions. For more significant cases, the policies also allow mitigation of civil penalties for prompt identification and reporting of noncompliances by contractors. Noncompliance reporting for worker safety and health and security requires further refinement. The Office of Enforcement will continue to evaluate the adequacy of reporting in achieving its intended purpose, to include thresholds for reporting and reporting mechanisms. For example, ITAC has undergone changes to report noncompliances instead of just being used for event reporting; however, further refinement for implementation is necessary. Further, not all contractors use ITAC. The Office of Enforcement will continue to assess reporting or noncompliances and ensure the process enables contractor managers and staff to identify and correct problems.

In 2006, the Office of Enforcement reviewed 235 nuclear and worker safety noncompliances reported into NTS. Figure 2-1 shows that NTS reporting in 2006 remained fairly consistent with reporting in

prior years. More than 70% of noncompliances reported into NTS were entered as the result of an event, or were identified by DOE rather than through the contractor’s assessment program.

Figure 2-1: Number of NTS Reports



Enforcement Activity

In the next two sections, the nuclear safety enforcement activities will be discussed, namely issued notices of violation and enforcement letters. No enforcement actions have been taken in the area of worker safety and health and the first security enforcement action is pending.

Notices of Violation

When significant violations of enforceable rules and requirements are identified, DOE has the authority to issue notices of violation and assess civil penalties. Six enforcement actions were issued in 2006 that included ten severity level I, 31 severity level II, and three severity level III violations with civil penalties totaling \$2,629,000. Three of these enforcement actions involved contractors who were exempt from civil penalty by statute resulting in \$2,238,500 of the assessed civil penalties being waived. These exemptions will end for certain contractors when their contract to operate the facility is renewed/rebid. The assessed civil penalties also included \$319,000 of mitigation deemed by DOE as warranted for proactive identification, causal analysis, and corrective actions. Table 2-1 provides a summary of the six enforcement actions and Figures 2-2 and 2-3 show the number of enforcement actions and civil penalties in prior years. Three enforcement cases were “significant” in that each assessed a civil penalty over \$500,000. The key considerations in these three cases are discussed below.

Lawrence Livermore National Laboratory was cited for long-standing deficiencies in radiological protection, quality assurance, and safety basis, and for two events that involved unplanned radiological uptakes, inadequate response to a radiological spill, and unauthorized, uncontrolled removal of radioactive material from the site. The enforcement action covered ten violations (one

severity level I, eight severity level II, and one severity level III), with an assessed civil penalty of \$588,500. The civil penalty for six of the severity level II violations was mitigated 25% for comprehensive causal analysis and corrective actions. The long-standing and repetitive noncompliances were determined to warrant a severity level I violation and the civil penalty was assessed on a two-day basis.

Argonne National Laboratory was cited for long-standing and widespread radiation protection and quality assurance deficiencies. DOE considers these problems to be more severe because management failed to take effective corrective actions despite repeated notifications by DOE. The enforcement action included four severity level I and two severity level II violations, with an assessed civil penalty of \$550,000. No mitigation was warranted due to the long-standing nature of the noncompliances and because many of them were identified by DOE.

Los Alamos National Laboratory, under the management of University of California at the time, was cited for widespread and continuing deficiencies in radiological protection, quality assurance, and safety basis. The persistence of these problems, coupled with management's failure to implement effective corrective actions, caused the escalation of the severity level from II to I. The enforcement action included five severity level I and ten severity level II violations, with an assessed civil penalty of \$1,100,000. No mitigation was warranted for these violations due to their long-standing and widespread nature.

Table 2-1: Summary of Enforcement Actions

EA No.	Contractor	Date Issued	Severity Level	Civil Penalty Assessed	Civil Penalty Mitigated
2006-01	Lawrence Livermore National Laboratory	02/23/06	1-I, 8-II, 1-III	\$588,500*	\$82,500
2006-02	Argonne National Laboratory	03/07/06	4-I, 2-II	\$550,000*	\$0
2006-03	Bechtel National Incorporated	03/16/06	6-II	\$198,000	\$132,000
2006-04	BWXT Pantex LLC	11/21/06	2-II, 2-III	\$110,000	\$22,000
2006-05	Los Alamos National Laboratory	02/16/07	5-I, 10-II	\$1,100,000*	\$0
2006-06	CH2M Hill Hanford Group, Inc.	11/16/06	3-II	\$82,500	\$82,500
Totals			10-I, 31-II, 3-III	\$2,629,000	\$319,000

Note: * indicates civil penalties waived by statute.

Figure 2-2: Number of Enforcement Actions

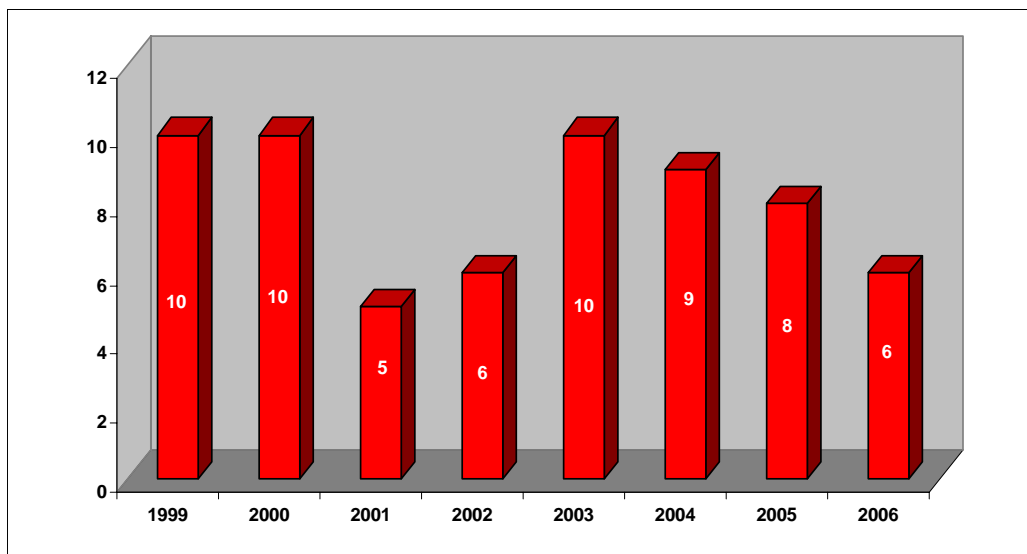
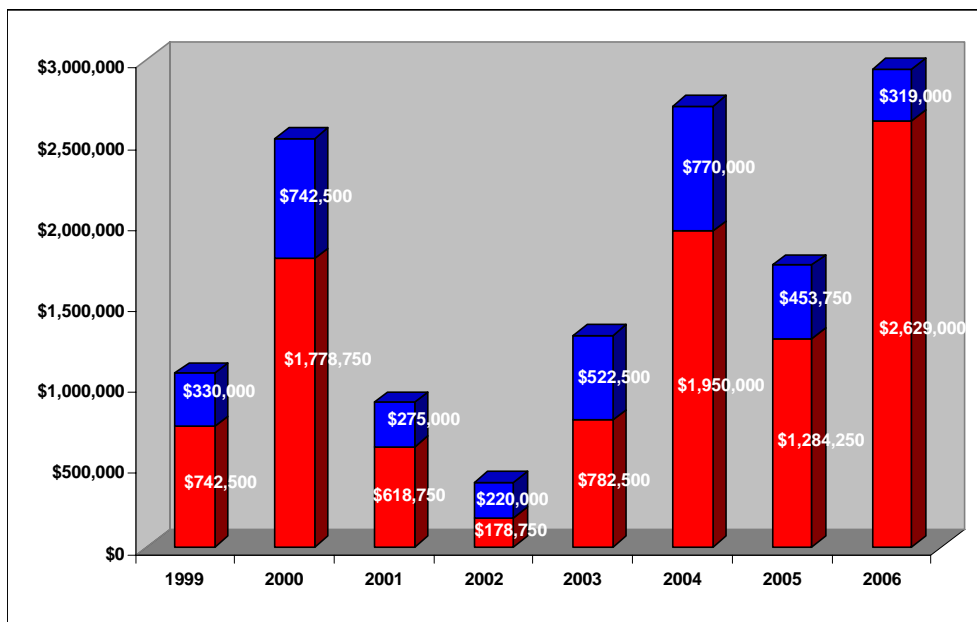


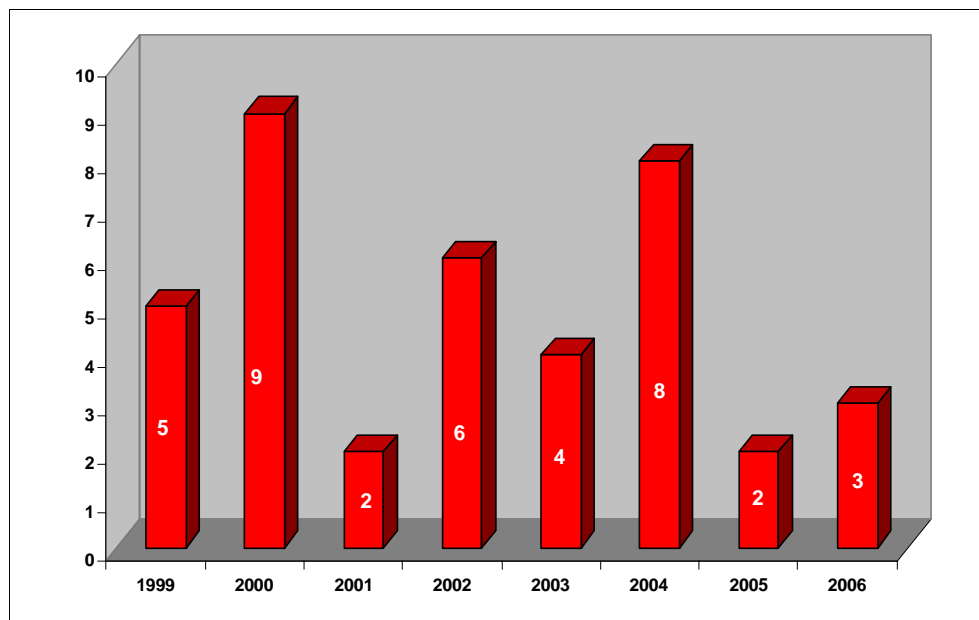
Figure 2-3: Final Civil Penalty Amounts and Amount Mitigated



Enforcement Letters

DOE uses enforcement letters to notify contractors of significant concerns that, if not addressed, could lead to notices of violation. Three enforcement letters were issued to contractors in 2006. In all three cases, the Office of Enforcement identified potential violations of nuclear safety requirements but elected to apply discretion based upon the contractor’s early detection, comprehensive investigation and causal analysis, and appropriate corrective actions. Figure 2-4 shows the history of enforcement letters issued by DOE.

Figure 2-4: Number of Enforcement Letters



3. ACCOMPLISHMENTS AND ACTIVITIES

The Office of Enforcement accomplishes its mission by means of a broad spectrum of activities in addition to enforcement investigations and issuance of enforcement actions. These activities support effective communications, share lessons learned, and promote improvement within DOE and the contractor community. In 2006, these activities included making the enforcement process more transparent by publishing the *Enforcement Process Overview*, continuing review and feedback on contractor programs for noncompliance identification and reporting, and conducting training and lessons-learned workshops.

Enforcement Process Overview

The Office of Enforcement consolidated a number of separate procedures and guidance documents into one comprehensive document called the *Enforcement Process Overview*. This document describes the processes used by the Department in implementing its regulatory obligations under:

- The *General Statement of Enforcement Policy* in 10 CFR Part 820, Appendix A, as amended, for violations of nuclear safety requirements, and
- The *General Statement of Enforcement Policy* in 10 CFR Part 851, Appendix B, for violations of worker safety requirements.

The approach that we apply to the security enforcement process is described in DOE's *Implementation Guidance* document for Part 824, March 2006 (also available on the Office of

Enforcement web site). The Office of Enforcement is incorporating this security enforcement process into the *Enforcement Process Overview* document.

Program Reviews

The Office of Enforcement completed four program reviews during 2006. The goal of the program reviews is to ensure that contractors have effective programs for identifying noncompliances, determining the causes and extent of the condition of noncompliances, and are implementing effective corrective and preventive actions. The program reviews also provide assurance that contractors are reporting noncompliances into the NTS system in accordance with DOE guidelines. The detailed program review results are posted on the Office of Enforcement web site.

The program review results demonstrate that most DOE contractors have developed effective programs for identifying and reporting nuclear safety noncompliances. In addition, contractor processes for identifying the causes and extent of the condition of noncompliances have significantly improved over the past five years. In the future, the Office of Enforcement will expand the program reviews to include worker safety and security, and will place more emphasis on contractors that have inadequate programs.

The Office of Enforcement has encouraged the contractor community to share lessons learned and take more responsibility for helping their peers develop and maintain effective programs for the identification, reporting, and correcting of noncompliances. EFCOG developed a pilot program to conduct peer program reviews and completed three peer program reviews in 2006. The Office of Enforcement reviewed the three EFCOG peer review results and concluded that the process was consistent with expectations and guidance for program reviews. DOE has concluded that if EFCOG peer reviews continue to be conducted effectively, the Office of Enforcement may conduct fewer and more focused program reviews.

Training

The Office of Enforcement conducted annual training for DOE and contractor coordinators April 4-6, 2006. The three days of training began with a one-day introductory training session for new DOE and contractor coordinators on the enforcement process, screening and reporting noncompliances, and the role of coordinators. The second day focused on compliance and safety issues of interest to DOE and contractor coordinators, both new and experienced. The final day was for DOE coordinators only (not contractors) to explore opportunities to improve safety through the enforcement program. This training allows the Office of Enforcement to share lessons learned from enforcement cases, receive feedback on improving the enforcement process, and foster effective communications with other DOE organizations.

4. CONCERNS, CHANGES, AND IMPROVEMENTS

DOE's enforcement program has gained knowledge and important lessons learned that can be used to further improve this program. The Office of Enforcement staff reviews the enforcement program each year to identify concerns requiring attention and improvement areas for the following year. This section discusses the significant concerns identified in 2006, and the improvement initiatives planned for 2007 and beyond.

Concerns

Several concerns were identified in 2006 in the nuclear, worker safety, and security enforcement areas. These concerns are listed below.

Nuclear Safety

The Office of Enforcement continues to be concerned about the number of recurring issues arising in nuclear safety programs across the DOE complex. For example:

- Three of the 2006 enforcement cases identified long-standing and widespread problems that had been previously identified by DOE or contractor management, but for which corrective actions were not effective.
- Seventy percent of noncompliances reported into NTS are discovered through events or by DOE rather than through contractor assessment programs.

Worker Safety and Health

The enforcement provisions of the worker safety and health rule became effective in February 2007, and contractors were required to be in full compliance by May 25, 2007. In 2006, the Office of Enforcement conducted three prototype inspections and a six-month trial reporting period for contractors to submit worker safety and health noncompliances into NTS. These activities identified the following concerns related to the startup of the worker safety enforcement program:

- The inspections demonstrated that contractor processes for identifying and correcting worker safety and health noncompliances are not fully effective.
- A review of gap analyses conducted by contractors to gauge the existing level of compliance with 10 CFR 851 requirements indicated that not all functional areas identified in the rule were being evaluated for compliance.
- The NTS trial reporting period highlighted the need to continue evaluating the worker safety and health NTS reporting format; monitor the suitability of the reporting thresholds; and encourage contractors to report precursors and assessment-driven events.

Security

The Office of Security Enforcement, established in August 2006, concerned about further formalization of the Incident Tracking and Analysis Capability (ITAC) case review and monitoring process, identified the following short-term goals:

- Develop an enhanced formal process for screening security incidents to identify issues that should be monitored and potentially investigated.
- Develop and implement a trending analysis process to identify complex-wide and site-specific trends that may indicate security-significant noncompliances.
- Educate and reinforce with Field Elements and Contractors, the self-reporting of noncompliances through the Incidents of Security Concern Program and ITAC.

Focus for 2007

The Office of Enforcement continually identifies areas of improvement by analyzing the effectiveness of its program. One significant focus is acquiring and maintaining enough well-qualified staff to effectively complete the mission with the expanded responsibilities of worker safety and security enforcement. Other key areas for internal and external improvement in 2007 are summarized below.

Worker Safety and Health

The worker safety and health enforcement program is being modeled after the nuclear safety program, but also must account for significant differences in the nature of the potential noncompliances. Implementing an effective worker safety enforcement program will necessitate the following activities:

Internal

- Augment staff through new hires and/or contractor support in critical areas, such as safety and health compliance, data analysis and trending, and specialized technical expertise. Ensure that contractor personnel work as a fully integrated component of the worker safety and health enforcement team.
- Maintain staff technical competencies in occupational safety and health functional areas, such as electrical safety and industrial hygiene, through continuing education and participation in safety and health forums and workshops.
- Participate in cross-cutting activities with the nuclear safety and security enforcement offices to supplement the staff's safety and health background and to promote a consistent approach to DOE enforcement activities.
- Ensure that the *Enforcement Process Overview* document incorporates all aspects of 10 CFR 851 enforcement and provides comprehensive guidance to facilitate, encourage, and support contractor activities for the prompt identification and correction of noncompliances.

External

- Work closely with DOE stakeholders, such as the Office of the General Counsel, Office of Worker Safety and Health Policy, and program and field office coordinators, to ensure proper coordination and disposition of worker safety and health noncompliance issues and cases.
- Collaborate with EFCOG working groups in the development and implementation of 10 CFR 851 guidance and training materials; use EFCOG workshops as a forum to allow the contractor community to keep abreast of developing enforcement issues.
- Partner with regulatory agencies, such as the Occupational Safety and Health Administration (OSHA), to ensure that jurisdictional responsibilities resulting from the promulgation and implementation of 10 CFR 851 are clearly delineated and understood.

Nuclear Safety

The Office of Price-Anderson Enforcement has identified the following key focus areas:

Internal

- Continue to focus on improving contractor assessment processes for early identification of potential problems that could become significant adverse events or noncompliances.
- Increase the focus on repetitive and long-standing nuclear safety noncompliances to reinforce the expectation that the causes and extent of condition of noncompliances need to be identified and effective corrective actions implemented to correct these problems.

External

- Work with EFCOG and contractor corporate entities to further improve contractor nuclear safety assessments at DOE sites.
- Support the sharing of knowledge, lessons learned, and best practices between DOE and DOE contractors by continuing to hold annual training and supporting contractor forums in these areas.

Security

The Office of Security Enforcement has established the following key focus areas in 2007:

Internal

- Incorporate 10 CFR 824 requirements and current guidance documentation into the Enforcement *Process Overview* document.
- Institute formal blocks of instruction on Security Enforcement into existing courses at the DOE National Training Center, specifically Basic Security Survey; Classified Matter Protection and Control; and Conduct of Inquiries.

External

- Identify opportunities to discuss the security enforcement process with members of the security, intelligence, and safety communities.
- Partner with the EFCOG working groups to align support in the development of security enforcement training and guidance materials, and peer review criteria.
- Foster information exchange on event-driven cases with the Department of Justice, U.S. Attorney, and Other Government Agencies.