

2005 Annual Report



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Office of Price-Anderson
Enforcement

Nuclear Safety
Enforcement Program

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TABLE OF CONTENTS

1. ANNUAL REPORT HIGHLIGHTS	1
2. SIGNIFICANT ENFORCEMENT ACTIONS	4
<i>CH2M Hill Hanford Group cited for multiple operational and radiological deficiencies (EA-2005-01)</i>	4
<i>BWXT Pantex, LLC, cited for quality assurance and quality improvement deficiencies (EA-2005-02)</i>	5
<i>Safety and Ecology Corporation cited for retaliation against an employee (EA-2005-03)</i>	5
<i>Fluor Fernald, Inc., cited for radiation protection and quality assurance deficiencies at the Fernald Site (EA 2005-05)</i>	6
3. CASES REFLECTING ENFORCEMENT DISCRETION	7
<i>University of California at Lawrence Livermore National Laboratory issued Enforcement Letter for quality assurance deficiencies</i>	7
<i>CH2M Hill Hanford Group issued an Enforcement Letter for improper controls associated with repair of neutron test sources</i>	8
<i>Bechtel Hanford, Inc., receives Consent Order for efforts to resolve a contamination event</i> ..	8
4. ACCOMPLISHMENTS and ACTIVITIES	10
<i>Program Activity</i>	10
<i>Enforcement Activity</i>	11
5. CONCERNS, CHANGES, and IMPROVEMENTS	16
<i>Concerns</i>	16
<i>Changes</i>	17
<i>Improvements</i>	17
ACRONYMS and ABBREVIATIONS	20
APPENDIX A: ENFORCEMENT PROCESS	21

1. ANNUAL REPORT HIGHLIGHTS

INTRODUCTION

This report describes the activities and accomplishments of the U.S. Department of Energy (DOE or Department) Price-Anderson Amendments Act (PAAA) Nuclear Safety Enforcement Program covering the period January 1, 2005, to December 31, 2005. This report also highlights program improvements planned for 2006.

A small, dedicated staff in the Office of Price-Anderson Enforcement (OE) administers DOE's Nuclear Safety Enforcement Program. Cooperative efforts between OE and DOE Field and Program Offices through their PAAA coordinators continued to contribute strongly to the success of the program during 2005. Procedural requirements, processes and policies for the Enforcement Program are contained in Title 10 of the *Code of Federal Regulations*, Part 820 (10 CFR 820), and its appendix A. DOE enforces two substantive nuclear safety rules: 10 CFR 830 (subpart A, *Quality Assurance* and subpart B, *Safety Basis Requirements*) and 10 CFR 835, *Occupational Radiation Protection*. Other requirements, such as the *Information Requirements* provision in 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 nuclear safety concerns. A description of DOE's Enforcement Program is provided in appendix A to this report.

The goal of DOE's Enforcement Program is to promote proactive behavior on the part of DOE and NNSA contractors to continuously improve nuclear safety performance. Consequently, the Enforcement Program provides substantial incentives to those contractor organizations that identify, report and aggressively correct nuclear safety performance issues. Coupled with these incentives is a credible deterrent to noncompliance with DOE nuclear safety regulations. Thus, DOE expects its contractors to (1) implement measures to ensure that their activities comply with these nuclear safety requirements, (2) self-identify and report noncompliances to DOE, and (3) correct noncompliances in a timely manner. When voluntary compliance fails, DOE has a number of enforcement tools available to ensure compliance, including the authority to issue a Notice of Violation (NOV) with civil penalties to a contractor indemnified under the Price-Anderson Amendments Act.

During 2005, the Enforcement Program continued to address problems in work processes, radiation protection, safety basis adherence, contractor self-assessment, and quality improvement. In 2005, DOE issued eight NOVs to DOE contractors for significant violations of DOE nuclear safety requirements. Notably, one of the eight represented OE's first NOV citing a 10 CFR 708 worker retaliation violation. Of the possible amount of \$1,738,000 in penalties, DOE mitigated a total of \$453,750 in several cases, which resulted in \$1,284,250 in penalties, and one monetary remedy of \$125,000 from a consent order, being collected in 2005. Figures 1-1 and 1-2 summarize the 2005 enforcement actions and civil penalties, and compare statistics with previous years. A summary of selected enforcement actions issued in 2005 are contained in chapter 2. Full descriptions of all of the enforcement actions issued in 2005 are available on the OE web site.¹

¹ Office of Price-Anderson Enforcement web site (<http://www.eh.doe.gov/enforce>)

Figure 1-1: Enforcement Actions

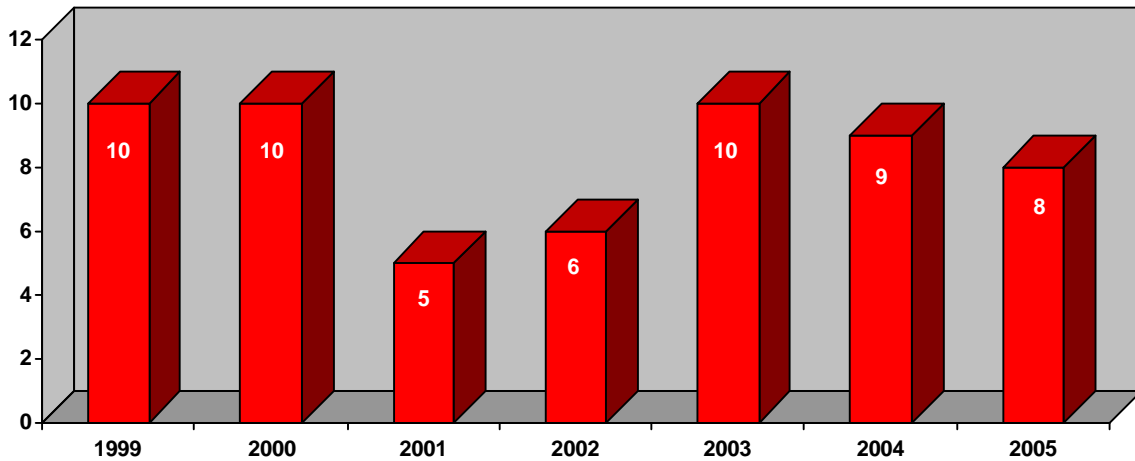
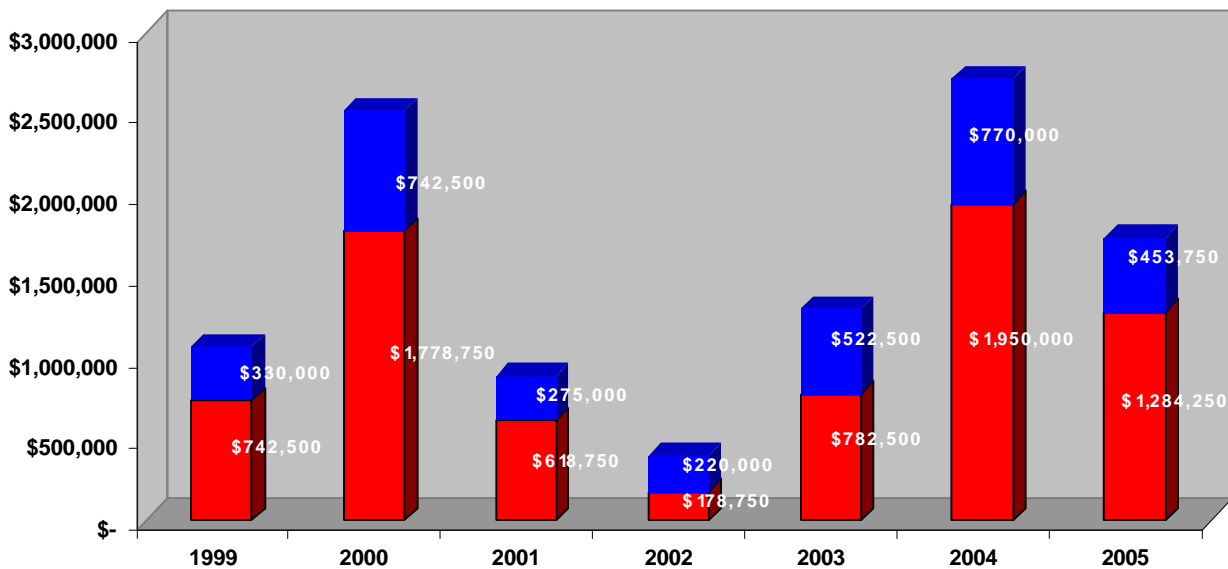
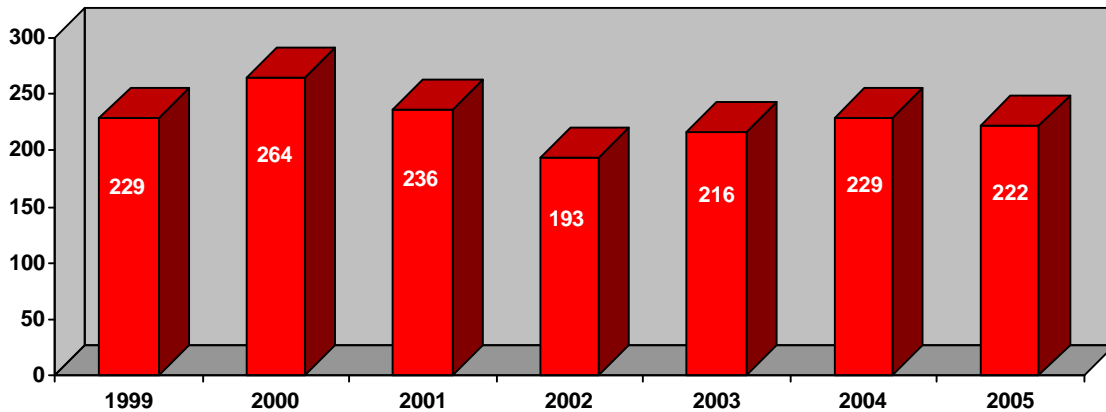


Figure 1-2: Final Civil Penalty Amounts and Amount Mitigated



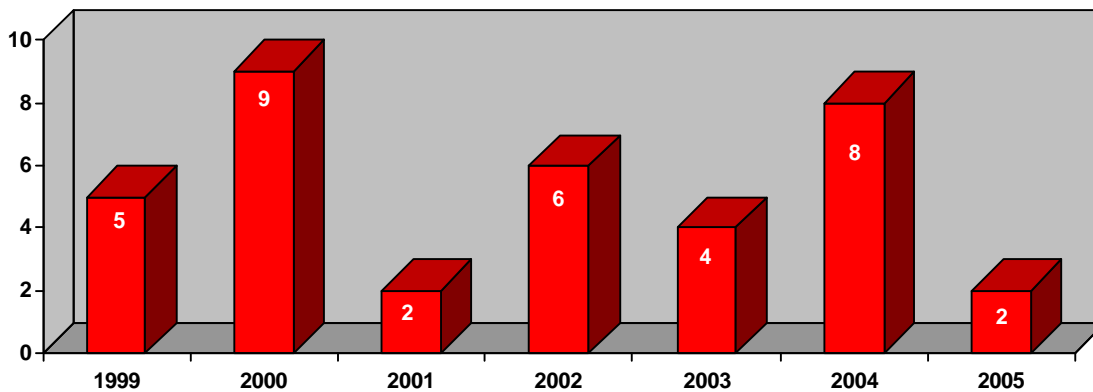
During 2005, contractors voluntarily reported 222 nuclear safety noncompliances into DOE's Noncompliance Tracking System (NTS) for review by OE (Figure 1-3). In addition, OE performed a 100 percent review of all occurrence reports. DOE also reviewed other sources of operational information that were not reported to the NTS (e.g., reports by the Defense Nuclear Facility Safety Board, Inspector General, Office of Independent Oversight and Performance Assurance) for potential PAAA applicability. During 2005, OE focused on the evaluation of contractor assessment activities and corrective action management programs as part of the enforcement investigation process. This focus supports the OE goal of transitioning the DOE complex from its current event-driven status to one that is characterized by self-identification and correction of precursor issues through performance assessment activities by the end of fiscal year 2008.

Figure 1-3: NTS Reports



In 2005, OE also issued two enforcement letters to contractors (Figure 1-4) and completed six PAAA program reviews at selected sites. During 2005, OE also directed significant effort towards preparations for enforcing 10 CFR 851, *Worker Safety and Health Program*. 10 CFR 851 was issued as a proposed rule in January 2005 and subsequently issued as a final rule in February 2006. OE activities during 2005 were directed towards establishing occupational safety noncompliance reporting thresholds, development of enforcement processes, and revisions to the NTS system to support the anticipated increase in reporting activity. Further details on OE activities in 2005 are described in chapter 4 of this report.

Figure 1-4: Enforcement Letters



While all of these activities will be continued in 2006, OE will emphasize program activities that steer contractors toward identifying problems through assessments instead of waiting for events to occur, improving corrective action management processes, and improving the nuclear safety mindset of DOE workers. Furthermore, OE will continue to conduct PAAA program reviews using a graded approach and will update enforcement procedures for the worker safety and health rule. OE activities related to 10 CFR 851 implementation and enforcement will continue to support that rule's effective date of February 9, 2007. Details on these and other activities planned for 2006 are provided in chapter 5.

2. SIGNIFICANT ENFORCEMENT ACTIONS

INTRODUCTION

In 2005, OE took several significant enforcement actions. Four of these actions are detailed below.

CH2M Hill Hanford Group cited for multiple operational and radiological deficiencies. (EA-2005-01)

The CH2M Hill Hanford Group, Inc., (CHG) is the DOE Office of River Protection's prime contractor responsible for the storage and retrieval of highly radioactive and hazardous liquid waste at the Hanford Tank Farms. On March 10, 2005, DOE issued a Preliminary Notice of Violation (PNOV) to CHG for radiation protection and quality assurance violations associated with four events occurring over the period from June 2003 to July 2004. The PNOV included an associated civil penalty of \$316,250.

The subject Tank Farm events included the contamination of multiple personnel during removal of equipment from a valve pit in June 2003; the performance of a cross-site waste transfer without required operable leakage and backflow prevention detection capability in November 2003; a valve positioning error during waste retrieval operations in November 2003; and a higher than anticipated extremity exposure to a worker during the removal of a thermocouple from a tank in July 2004.

As a result of the June 2003 contamination event, fifteen workers received very minor uptakes of radioactive material. As a result of the July 2004 event, a worker received a higher than anticipated exposure of 22 rem to the hand (as compared to an annual DOE limit of 50 rem). In both instances, although no regulatory limit was exceeded, exposures could have been significantly higher due to a lack of effective controls. DOE noted several common weaknesses between the June 2003 contamination event and the July 2004 extremity exposure event, including the reliance on inappropriate radiological survey information, noncompliance with radiological work permits, poor communication, and non-conservative decision making.

The PNOV cited deficiencies related to the adequacy of radiological planning, compliance with procedures and safety basis requirements, the control of access to contamination areas, and training. The PNOV also cited deficiencies in the adequacy of CHG prior corrective actions since many of the cited deficiencies were recurrent in nature.

The PNOV cited seven violations and proposed a civil penalty in the amount of \$316,250, based on the significance of the violations. The civil penalty amount included partial mitigation in recognition of the scope of corrective actions associated with two of the violations. Overall, however, mitigation was limited due to the recurrent nature of the events. In the transmittal of the PNOV, DOE expressed concern with the "...lack of sustained improvement..." in CHG nuclear operations, demonstrating the need for "...further improvement in nuclear safety culture."

In their response, CHG acknowledged the violations and provided a status of their corrective actions.

BWXT Pantex, LLC, cited for quality assurance and quality improvement deficiencies. (EA-2005-02)

The Pantex site, located near Amarillo, Texas, is where DOE assembles, maintains, and repairs nuclear weapons as well as disassemble those that have been retired from service. On May 16, 2005, DOE's National Nuclear Security Administration (NNSA) issued a PNOV to the site contractor, BWXT Pantex, LLC, for quality assurance deficiencies related to the development and use of a procedure to remove a damaged weapon component.

On January 8, 2004, during the routine dismantling of a retired nuclear weapon, an explosive component unexpectedly cracked. The technicians performing the dismantlement stopped all further work when the cracking was noticed, placed the weapon in a safe configuration, and then made all necessary notifications. During the next several days, BWXT Pantex engineering staff analyzed the situation and developed a procedure to remove the cracked explosive without aggravating the cracking. Development of the procedure involved consultation with University of California employees from Lawrence Livermore National Laboratory (LLNL). LLNL is the source of technical information regarding the weapon. On January 13, the use of this procedure began to worsen the cracking which again halted any further work.

BWXT Pantex management conducted a thorough assessment of the activities leading to the use of the procedure and found that a number of procedural errors had occurred. Contractor management found that a safety review of the proposed procedure did not follow all requirements, the initial exchange of information between BWXT Pantex and LLNL was informal and thus did not document all necessary criteria, there was inadequate training of the technicians on the procedure, and the equipment routinely used for the weapon's dismantlement was not as robust as originally intended but this condition had not been previously identified. BWXT Pantex performed 165 corrective actions to solve the immediate problems and to prevent any future occurrence in any of its other operations.

After conducting an investigation of the event, DOE/NNSA, in conjunction with OE, issued a PNOV to BWXT Pantex for breakdowns in its quality assurance and quality improvement processes that affected development and use of the procedure to remove the cracked explosive. The contractor was given substantial civil penalty mitigation in recognition of its assessment and corrective actions. The resultant civil penalty was \$123,750.

Safety and Ecology Corporation cited for retaliation against an employee. (EA-2005-03)

In June 2005, a PNOV and proposed civil penalty of \$55,000 was issued against the Safety and Ecology Corporation (SEC) relating to work activity as a subcontractor at the Portsmouth site. The PNOV involved a violation of 10 CFR 708, the DOE contractor employee protection rule. Under Part 708, any contractor employee who has experienced retaliation for raising nuclear safety issues may file a complaint. Such complaints may be filed either at the DOE Office of Hearings and Appeals (OHA) or at the U.S. Department of Labor (DOL). OHA and DOL have the authority to award back pay, reinstatement of employment, and attorney's fees, among other things, if the claims are valid. But OE has independent authority to make a finding that there has been a nuclear safety violation if discrimination has in fact taken place.

The subject case involved an employee who was dismissed by SEC in 1999 after raising safety concerns, including nuclear safety concerns. The case was heard by OHA, which awarded the employee back pay, reinstatement, and attorney's fees. The matter was appealed by the contractor to the OHA Director, who affirmed the findings in all respects. At that point, SEC appealed the matter to Federal District Court and demanded a new trial. The Court denied

SEC's request and granted a Motion for Summary Judgment to DOE. Thus, about five years had passed from the original dismissal to a final order in the matter.

OE decided the matter was clearly appropriate to warrant independent intervention since the underlying corporate behavior could have a chilling effect on raising safety concerns. SEC was given the opportunity to supplement the record with additional mitigating information, if any, and after a review of the complete record, including the additional materials provided, OE issued its PNOV and civil penalty of \$55,000.

Fluor Fernald, Inc., cited for radiation protection and quality assurance deficiencies at the Fernald Site. (EA 2005-05)

Fluor Fernald, Inc., (Fluor Fernald) is the primary DOE contractor responsible for managing site cleanup activities at the Fernald Closure Project. The project is a former DOE uranium processing facility located in southwest Ohio that is undergoing environmental remediation.

On August 25, 2005, DOE issued a PNOV and associated civil penalty to Fluor Fernald for deficiencies relating to their occupational radiation protection and quality assurance programs. The deficiencies were identified as a result of information gathered during a PAAA program review conducted in early July 2005.

As part of that program review, DOE identified through a review of the site radiological deficiency reports (RDR) that a programmatic issue existed with sitewide radiation work permit (RWP) compliance. Over the year prior to the program review, multiple examples of RWP noncompliance had been identified, ranging in significance from failure to sign in/out on RWPs to more significant examples involving conducting work without required technician coverage. Although these individual examples were documented in the RDR system, Fluor Fernald had not recognized this programmatic issue and had not taken effective actions to resolve it.

DOE's review also identified deficiencies in the level of rigor associated with the Fluor Fernald 10 CFR 835 triennial assessment process. A review of twelve such assessments conducted over the two year period prior to the program review indicated that only two assessment findings had been identified. Evaluation of the two findings subsequently identified one of the two to be based on a DOE facility representative surveillance issue, rather than a contractor-identified issue. DOE found the lack of findings associated with the contractor's 10 CFR 835 triennial assessment process to be inconsistent with the number of radiation protection issues and deficiencies being identified through the RDR system.

The PNOV cited three violations: 10 CFR 835 written procedure noncompliance, 10 CFR 835 internal audit deficiencies, and 10 CFR 830 quality improvement deficiency. The three violations were each categorized a Severity Level III problem, with a combined civil penalty of \$33,000. In the transmittal letter for the PNOV, DOE noted that no mitigation of the civil penalty was warranted based on a general lack of self identification, analysis, and corrective action related to the violations.

In response to the PNOV, Fluor Fernald undertook a number of actions to correct radiological control and quality assurance performance at the Fernald site. These included improved review and trending of the RDR system, augmentation of radiological control program staff, and review and revision of site RWP and radiological control procedures. Fluor Fernald has continued to keep OE apprised of the status of their corrective actions and overall performance as site closure activities continue.

3. CASES REFLECTING ENFORCEMENT DISCRETION

INTRODUCTION

As discussed in more detail in chapter 4, OE refrains from pursuing formal enforcement action for a large number of nuclear safety issues that come to its attention. This option is generally exercised when an issue has lower safety significance and the contractor effectively identifies, reports, and corrects the problem. In a limited number of these cases, OE also issues an enforcement letter to draw contractor attention to nuclear safety matters of concern that require attention by contractor management to prevent a more serious situation.

For noncompliance issues that would typically result in an enforcement action, but where the contractor takes extraordinary initiative to mitigate the issue, identify the root cause, and to develop and implement comprehensive corrective actions, OE can choose to issue a consent order (CO). A CO is, technically, not an enforcement action, but a negotiated settlement between a contractor and DOE where the contractor admits to the violations and DOE recognizes that the contractor's remedial efforts are sufficient enough such that an enforcement investigation would provide no additional information. Further details explaining the CO process are provided in OE's enforcement guidance supplement (EGS) 03-01, *Supplemental Guidance Concerning the Factual Bases for Issuing Consent Orders Pursuant to 10 CFR 820.23*, and is available at OE's web site. A CO typically includes a monetary remedy in lieu of a civil penalty; however, the amount is less than what its equivalent would be in association with a NOV.

In 2005, OE issued two enforcement letters and one consent order, copies of which are available on the OE web site. The following section summarizes these.

University of California at Lawrence Livermore National Laboratory issued Enforcement Letter for quality assurance deficiencies.

Lawrence Livermore National Laboratory (LLNL), located east of Oakland, California, is one of two DOE national laboratories involved in the maintenance of nuclear weapons, and is a source of technical information to the Pantex site for issues related to weapons previously designed by LLNL. The University of California (UC) has been the prime contractor for LLNL since the laboratory's inception.

OE issued, on June 2, 2005, an enforcement letter to UC criticizing UC for its actions related to Enforcement Action 2005-2. This enforcement action was issued to BWXT Pantex for nuclear safety violations resulting from the insufficient development and use of a recovery procedure to remove a cracked explosive component from a retired nuclear weapon. LLNL's involvement was twofold: the informal transfer of weapon response information to the Pantex engineer preparing the recovery procedure; and an onsite LLNL engineer's "concurrence" on the draft procedure that, when put into use, aggravated the explosive component's cracking.

In developing the recovery procedure, the BWXT Pantex engineer discussed with a LLNL subject matter expert (SME) for this explosive, who was at Pantex at that time, about whether the proposed recovery method would destabilize the explosive. The SME indicated it would not. After returning to LLNL, the SME was again contacted by the engineer who asked for written confirmation that the explosive would be unaffected; confirmation was provided in a memorandum. OE's investigation determined that the information regarding the explosive was of such a nature that the request and the response should have been transmitted in accordance with existing procedures concerning a weapon response to an unanalyzed condition.

Furthermore, when OE investigators spoke, by telephone, to representatives of LLNL's Defense Technologies Engineering Division (DTED), the organization the SME worked in, about this informal transmittal, the investigators were told that LLNL was under no obligation to formally respond to an informal request, and that informal responses were to be used at the recipient's own risk.

The second incident was related to a safety review of the draft recovery procedure. There was some discussion within the review group concerning the procedure's clarity as several steps were not fully explanatory. The engineer who developed the procedure was able to answer the group's questions and this resulted in the procedure being approved without any further changes. Subsequent use of the recovery procedure, however, resulted in additional cracking of the explosive. OE investigators questioned several members of the review group, which included an onsite LLNL engineer, about why the procedure was approved despite the procedure's obvious lack of clarity. The LLNL engineer replied that his signature meant concurrence with the procedure, not approval. When asked to explain this nuance, the LLNL engineer was unable to.

OE's enforcement letter to UC reminded the contractor of DOE's expectations regarding quality assurance and maintaining an appropriate safety culture, especially for nuclear weapon processes. The letter further criticized UC for its employees' interactions with OE investigators as these were regarded as efforts to avoid responsibility for not taking the safety of Pantex employees into consideration.

CH2M Hill Hanford Group issued an Enforcement Letter for improper controls associated with repair of neutron test sources.

CH2M Hill Hanford Group (CHG) is the prime contractor at the Hanford Tank Farms in Richland, Washington. CHG determined that a worker had received a higher than expected cumulative neutron dose--274 millirem--in 2004. The CHG investigation revealed that the dose had been received during the troubleshooting and repair of neutron probes.

Further investigation by CHG revealed significant breakdowns in both the work planning for the job evolution and in control of the neutron sources. A general radiological work package (RWP) for the troubleshooting and repair of the neutron probes was used. However, the general RWP did not address neutron radiation and did not require the CHG radiation control organization to be involved with its development. In addition, usage requirements established by CHG as part of its radioactive sealed source control program were defeated entirely due, in large part, to the worker having had access to the neutron sources independent of the source custodian. OE issued an enforcement letter on July 8, 2005, in recognition that the work planning and conduct breakdowns were limited to the repair activity and not indicative of broader problems, and the prompt and thorough investigation conducted by CHG which included an extent of condition review, and mid-point and end-point assessments of the effectiveness of its corrective actions.

Bechtel Hanford, Inc., receives Consent Order for efforts to resolve a contamination event.

Bechtel Hanford, Inc., is one of several prime contractors conducting environmental restoration activities at the Hanford site, located in southeast Washington State. On July 28, 2005, Bechtel Hanford received a consent order related to deficiencies stemming from a cleanup activity and its remedial actions following discovery of the deficiencies.

On December 14, 2004, a safe containing several containers of unknown liquids was discovered at the 618-2 Burial Ground during excavation activities. Radiological surveys and

non-destructive analysis of the safe and its contents revealed the presence of plutonium contamination inside the safe and as a separate component in at least one of the containers. Activities related to the excavation and transportation of material from the Burial Ground was determined to be outside the scope of the facility's authorization basis.

On December 16, 2004, two radiological control technicians (RCTs) collected contamination smear samples at the 618-2 soil staging/stockpile area in an attempt to locate the source of a laborer's elevated lapel air sampler reading. Analysis of the lapel air samples confirmed that the RCTs received significant exposure to airborne plutonium during the survey activity. No airborne alpha radiation monitoring had been conducted as dispersible plutonium was not expected to be found.

On May 24, 2005, Bechtel Hanford requested from DOE consideration for a consent order (in lieu of an enforcement action) with respect to the events occurring at the 618-2 Burial Ground in December 2004. Bechtel Hanford voluntarily reported these events using the NTS on January 26, 2005, in report NTS-RL-BHI-REMACT-2005-0001, *Hazard Identification and Personnel Exposure at 618-2 Historical Burial Site*.

The contractor's investigation of the events identified significant deficiencies related to work planning, implementation, survey performance, and training. These included the failure to conservatively anticipate and monitor for the presence of separated plutonium in the burial ground and the failure to appropriately recognize and respond to conditions not described by the safety authorization basis. Bechtel Hanford's investigation included a series of causal analyses and extent-of-condition reviews to determine the scope of the problem and to identify programmatic corrective actions.

DOE evaluated the results of Bechtel Hanford's aggressive investigation and concluded that it represented a comprehensive and thorough evaluation of the deficiencies leading to the 618-2 Burial Ground events, thus a full independent investigation by DOE was unnecessary and unwarranted. Also, Bechtel Hanford's recent history showed that it had a proactive approach to identifying and resolving nuclear safety issues. As a result, DOE and Bechtel Hanford negotiated an agreement pursuant to these events that led to the issuance of a consent order in lieu of additional investigation by DOE and a possible enforcement proceeding, including the potential issuance of a NOV with the imposition of a civil penalty. Instead, the contractor consented to a monetary remedy of \$125,000.

4. ACCOMPLISHMENTS and ACTIVITIES

PROGRAM ACTIVITY

Program Reviews

OE issued six PAAA program reviews during 2005 and the detailed results of these are posted on its web site. Although seven reviews were actually conducted during 2005, the last one occurred in mid-December and the associated report was not issued until early 2006.

PAAA program reviews were conducted in accordance with published criteria and included an evaluation of contractor processes for identifying, screening, reporting, and trending noncompliances. OE transmitted the results of the review by letter to the involved contractor and DOE line management, and posted a copy of each letter on the OE web site to provide a lessons-learned opportunity for other DOE contractors.

During the course of these reviews, OE evaluated particular events or problems that were not reported to DOE via the NTS. In some cases, OE identified potential compliance problems, e.g., in contractor processes for the resolution of quality assurance problems. While the intent or focus of program reviews was not to search for nuclear safety violations, a number of nuclear safety noncompliances found by OE during a program review can lead to an enforcement action. This did occur with the 2005 program review at the Argonne National Laboratory (ANL). OE found that there had been significant degradation in the effectiveness of the contractor's programs for identifying and effectively correcting nuclear safety noncompliances since the previous PAAA program review in 2000. This finding, coupled with the equally troubling results of a triennial inspection, in mid-2005, of ANL's environment, safety and health programs by another DOE organization, led to an enforcement investigation in late 2005 followed by the issuance of a NOV to the ANL contractor, the University of Chicago, in early 2006. The details of this enforcement action are available on OE's web site.

A PAAA program review gives OE better insight into the contractor's understanding and implementation of nuclear safety management and reporting practices. The reviews also provide DOE contractors an additional opportunity to review OE's PAAA program expectations. OE recognizes that contractor PAAA programs and the people who manage the programs will change over time. Since several years have passed since the initial reviews of the major DOE contractors were completed, OE began its second round of PAAA program reviews in 2004. OE used a graded approach to schedule the reviews, so that contractors with programs that were originally found to be less than adequate were visited first.

While only a limited number of second-round PAAA program reviews have been conducted, OE has found that some contractor PAAA programs have improved while others have exhibited a degree of complacency. Limited reviews of contractor performance assessment programs continued in 2005. In general, OE continues to be dissatisfied with the significant number of event-driven NTS reports. Contractors must become more proactive in identifying, tracking, and trending noncompliance issues through more effective management and independent assessment programs, so that precursor issues can be addressed before they result in significant safety events.

Training

For the last few years, OE has conducted annual training for DOE PAAA coordinators. This training typically included a one-day introductory training session for new DOE and contractor coordinators, and a two-day course for experienced DOE PAAA coordinators.

This annual training was deferred from December 2004 (normally conducted in December each year) to April 2005, to align with the Energy Facility Contractors Group (EFCOG) PAAA Working Group meetings, and to efficiently use both personnel and financial resources. The 2005 training highlighted PAAA-related actions taken during 2004 and the status of on-going initiatives.

Web Site

OE maintains an internet web site (<http://www.eh.doe.gov/enforce>) to provide information to Federal and contractor communities and the general public. Relevant Federal regulations, standards, Office of General Counsel interpretations, program operating procedures, enforcement actions, enforcement letters, press releases, enforcement guidance, program review letters, the most recent annual report, and workshop information are available on the web site. OE routinely updates information on the web site to enhance communication with contractors and the public on enforcement activity, and to promote lessons learned across the DOE complex. The OE web site was accessed over 110,000 times in 2005, demonstrating that the site is a vital avenue of communication for the DOE nuclear safety program.

Enforcement Guidance Supplements

In 2005, OE issued EGS 05-01, titled *Contractor Investigation, Causal Analysis, and Corrective Actions*, since recent OE investigations have highlighted deficiencies in these areas. The new EGS provides guidance on observed deficiencies as a potential lessons-learned opportunity for the DOE contractor community.

ENFORCEMENT ACTIVITY

Cases Considered and Closed Without Action

In 2005, OE reviewed information from a number of different sources to identify potential noncompliances with nuclear safety requirements. OE reviewed each of the 222 reports that contractors submitted into the NTS, all occurrence reports, and issues that came to OE's attention from other sources, such as DOE and contractor audits and assessments, and DNFSB staff reports. OE closed a total of 177 NTS reports in 2005. This total included NTS reports that had been submitted in prior years, but which had remained open until all corrective actions associated with the reports were completed.

OE reviewed NTS reports and other sources of information related to potential noncompliances and focused on the safety significance of each issue. In each review, OE considered the degree to which the contractor demonstrated aggressive self-identification, reporting, and corrective action. The majority of issues were closed without an enforcement action as a result of the low safety significance assigned to the issues and because contractors took prompt and proper actions to identify, report, and correct problems. When OE was not satisfied with contractor actions with regard to a safety-significant issue, it conducted a more comprehensive review. Table 4-1 lists the number of NTS reports filed by each DOE contractor in 2005.

Table 4-1

SITE	CONTRACTOR	Number of NTS Reports
Miamisburg Closure Project	Babcock & Wilcox of Ohio	0
Pacific Northwest National Laboratory	Battelle Memorial Institute	6
Idaho National Laboratory	Battelle Energy Alliance	12
Idaho National Laboratory	Bechtel BWXT Idaho	6
Idaho National Laboratory	CH2M Hill Washington Group Idaho	8
River Protection Project	Bechtel National	6
Hanford Site	Bechtel Hanford	1
Oak Ridge and Paducah Sites	Bechtel Jacobs Company	11
Oak Ridge Site	Foster Wheeler Environmental Corp.	1
Nevada Test Site	Bechtel Nevada	2
East Tennessee Technology Park	Bechtel Jacobs	6
Brookhaven National Laboratory	Brookhaven Science Associates	3
Pantex Plant	BWXT Pantex	9
Y-12 National Security Complex	BWXT Y-12	3
Separations Process Research Unit	CH2M Hill	0
River Protection Project	CH2M Hill Hanford Group	7
Fernald Closure Project	Fluor Fernald	8
Hanford Site	Fluor Hanford	30
Kansas City Plant	Honeywell FMT	2
Rocky Flats Environmental Technology Site	Kaiser-Hill Company	4
Sandia National Laboratory	Lockheed Martin Corporation	14
Portsmouth Gaseous Diffusion Plant	Safety and Ecology Corporation	1
Thomas Jefferson National Accelerator Facility	Southeastern University Research Association	0
Los Alamos National Laboratory	University of California	16
Lawrence Livermore National Laboratory	University of California	18
Lawrence Berkeley National Laboratory	University of California	2
Argonne National Laboratory	University of Chicago	8
Oak Ridge National Laboratory	UT-Battelle	11
Savannah River Site	Westinghouse Savannah River Company	11
Waste Isolation Pilot Plant	Washington Group International	4
West Valley Site	West Valley Nuclear Services Company	2

Notices of Violation

In 2005, OE initiated formal enforcement actions in eight cases in which the actual or potential safety significance was high. In these cases, the Department issued NOV's to document significant violations of nuclear safety requirements and clearly communicate DOE's expectations to the contractor. The letters that transmitted the NOV's also urged the contractors to correct the behaviors and practices that led to the violations and to aggressively promote

cultures in which the contractors identify and correct problems before serious conditions result. The eight NOVs imposed monetary civil penalties totaling \$1,738,000, of which \$453,750 was mitigated. Summaries of four of these NOVs are provided in chapter 2.

Table 4-2 summarizes the enforcement actions issued in 2005. Table 4-3 also summarizes how the civil penalties were mitigated in some cases.

Table 4-2

EA No.	Contractor	Type	Severity Level	Date Issued	Civil Penalty
2005-01	CH2M Hill Hanford Group	NOV	II	3/10/05	\$316,250
2005-02	BWXT Pantex	NOV	II	5/16/05	\$123,750
2005-03	Safety and Ecology Corp.	NOV	II	6/14/05	\$55,000
2005-04	Bechtel Jacobs Company	NOV	I, II	8/4/05	\$247,500
2005-05	Fluor Fernald	NOV	III	8/25/05	\$33,000
2005-06	UT-Battelle	NOV	II	12/16/05	\$110,000
2005-07	Fluor Hanford	NOV	I, II	12/16/05	\$206,250
2005-08	Washington TRU Solutions	NOV	II	12/22/05	\$192,500

Table 4-3

EA No.	Civil Penalty Before Mitigation/Waiver	Number of Violations/Severity Level	% Mitigation	Amount Mitigated	Final Civil Penalty
2005-01	\$385,000	4/II 2/II 1/II	0 25 75	\$68,750	\$316,250
2005-02	\$220,000	1/II 3/II	25 50	\$96,250	\$123,750
2005-03	\$55,000	1/II	0	0	\$55,000
2005-04	\$385,000	1/I 5/II	0 50	\$137,500	\$247,500
2005-05	\$33,000	3/III	0	0	\$33,000
2005-06	\$165,000	1/II 2/II	0 50	\$55,000	\$110,000
2005-07	\$275,000	1/I 2/II 1/II	0 25 75	\$68,750	\$206,250
2005-08	\$220,000	2/II 2/II	0 25	\$27,500	\$192,500
TOTAL				\$453,750	\$1,284,250

Enforcement Letters

In situations where OE exercises enforcement discretion and does not issue an NOV, OE may decide that conditions warrant some form of notice to the contractor. For example, there may have been a precursor event or the contractor's actions to identify or resolve problems may have been weak. In such a case, OE may issue an enforcement letter to a contractor to communicate OE's concerns and encourage the contractor to address the problems presented.

In 2005, OE issued two enforcement letters, which are available on the OE web site. Summaries of these enforcement letters are provided in chapter 3.

Enforcement-Related Orders

OE can use other enforcement tools to resolve a case and effect desired contractor actions. OE can issue special report, consent, and compliance orders. A special report order requires a contractor to provide specific information to DOE that demonstrates compliance with nuclear safety rules. A consent order enables DOE to settle a case with a contractor, thereby avoiding a resource-intensive investigation by DOE and an extended enforcement action process. The Secretary of Energy may issue a compliance order when it is necessary to direct a contractor to take specific actions in order to remedy a serious violation of nuclear safety requirements. EGSs 00-04 and 03-01 describe the conditions for using the consent and compliance orders, respectively, and they are available on the OE web site. During 2005, one consent order was issued. A summary of this order is provided in chapter 3.

NTS Revision

The NTS is the voluntary noncompliance reporting data base used by contractors to report nuclear safety-related deficiencies to DOE. During 2005, OE undertook revisions to the NTS to increase its capacity for anticipated 10 CFR 851 deficiency reporting and to provide greater data analysis capability. The new NTS has the capacity to store greater amounts of data and adds both functionality and faster response times while improving the previously limited capabilities for searching and reporting. New features include giving the user the ability to trend using a special reports feature. This new version contains more improvements for contractor facilitation than for any other group of NTS users. In the past, OE had a limited ability to help a contractor with report problems, which usually had to be forwarded to a technical support person. However, the new system gives the Docket Clerk staff the ability to help a contractor with any problem related to both draft and submitted reports.

Registration for the new system has changed somewhat. As a convenience to users, the Office of Environment, Safety and Health has eliminated the need for multiple passwords to access EH systems. NTS users who have Occurrence Reports & Processing System, Computerized Accident/Incident Reporting System, Suspect Counterfeit Items, or Daily Occurrence accounts use those same credentials to log in to the NTS. All others can register for a new account at <https://registration.eh.doe.gov>, selecting the NTS system, and following the online registration instructions.

DOE PAAA Coordinator of the Year

In 1996, OE established the Price-Anderson Coordinator of the Year award to recognize individual DOE PAAA coordinators for their leadership and contributions to the Enforcement Program. Awards have been made annually since then, and are presented during the OE-sponsored annual DOE PAAA Coordinators Training Workshop. Due to a recent change in the timing of the workshop (moved from December to April), the OE 2004 Annual Report did not include a description of the 2004 award winner. Consequently, this annual report will present both the 2004 and 2005 DOE PAAA Coordinator of the Year award winners.

For 2004, OE recognized Mr. Pat Carrier of the DOE Office of River Protection (ORP) as the Coordinator of the Year. Mr. Carrier was recognized for his close involvement with and support to OE during the prolonged investigation and issuance of an enforcement action associated with operational and radiological control deficiencies at the Hanford Tank Farms. Working with Mr. Samuel Vega, the backup PAAA coordinator for ORP, Mr. Carrier also conducted a follow-up

review to the OE 2003 PAAA program review of Bechtel National to monitor program performance and determine whether weaknesses identified during the OE review were addressed. A photograph of Mr. Carrier receiving his award was not available for this report.

For 2005, OE recognized Mr. Dennis Riley of the DOE Ohio Field Office for his activities as the PAAA coordinator for the Fernald site. This is the second time Mr. Riley has received the Coordinator of the Year award. During 2005, Mr. Riley provided valuable assistance and support to OE in the planning of a PAAA program review at Fernald. During the conduct of the review itself, Mr. Riley fully participated as a team member, and provided technical insight



into the significance of identified weaknesses. This program review resulted in the issuance of a PNOV. Subsequent to issuance of the PNOV, Mr. Riley provided additional assistance to OE by continuing to monitor contractor performance and routinely communicating the status and effectiveness of corrective actions to OE. In the photograph above, Mr. Riley, left, receives his award from Stephen Sohinki, OE Director.

5. CONCERNS, CHANGES, and IMPROVEMENTS

INTRODUCTION

Experience gained from the DOE's Enforcement Program during the first ten years led to some important lessons learned. This chapter discusses Enforcement Program concerns, improvements, and initiatives planned for 2006 and beyond.

CONCERNS

OE continues to be concerned about the number of recurring issues that are still arising in nuclear safety programs across the DOE complex. Examples include the following:

Nuclear Safety

- Conduct of nonroutine and hazardous work activities using general work packages and radiological work permits, resulting in the ineffective control of work hazards.
- Failure to perform a full and complete nuclear/radiological hazard characterization prior to conducting a radiological work activity (often relying on an incomplete characterization or on a prior characterization performed on a dissimilar system or equipment).
- Failure to establish or maintain effective configuration control over equipment important to safety, resulting in technical safety requirement violations.
- Failure to recognize and respond to changing conditions during the course of a work activity, often leading to upset or adverse event conditions.

Occupational Safety

- Performance of decontamination and demolition without first checking to see whether underlying electrical lines were de-energized.

Such recurring issues indicate weaknesses in corrective action management processes, in that corrective actions have either failed to address the underlying problems, or have not been effectively implemented and sustained. In turn, causal analysis processes are in need of improvement, extent of condition reviews are not consistently broad enough, and performance assessment programs are failing to find the precursor issues that will prevent safety events from occurring.

In this regard, it has been about 18 months since the EFCOG PAAA Working Group published its *Assessment Guide – Implementing the Assessment Process at the Department of Energy Facilities*, addressing the elements of an excellent assessment program, the obstacles across the DOE complex to achieving that standard of excellence, and thoughts on actions that might be taken to begin to overcome those obstacles. OE continues to applaud the Working Group for its efforts in developing the guide, and views it as an important resource for DOE contractors in improving their respective performance assessment programs. Based on discussions with various contractors over the past year, however, OE is concerned that this guide is not being effectively utilized, and there has been limited effort directed at improving performance assessment program performance. As a result, OE has determined that increased attention will

be directed during future PAAA program reviews to determine whether and to what extent specific actions are being taken to render contractor performance assessment programs more effective in finding and addressing precursor issues that, if not addressed, will result in safety events.

CHANGES

There were two major legislative developments in 2005 affecting administration of the Price-Anderson Amendments Act, enacted as part of Public Law 109-58, *Energy Policy Act of 2005*, in August 2005. Both appear in Title VI of the legislation. Section 602 extended Price-Anderson indemnification through December 31, 2025, thereby eliminating a series of last-minute two-year extensions of the indemnification.

In addition, Section 610 of the statute amended Section 234A of the *Atomic Energy Act of 1954*, the section that authorizes civil penalties against contractors that violate DOE nuclear safety rules. The old section granted automatic remission of civil penalties to seven named not-for-profit contractor entities. Under the statute as amended, remission is terminated when new contracts are signed for those entities subsequent to the effective date of the statute. However, such penalties may not, in any given year, exceed the total amount of fees paid to the contractor.

IMPROVEMENTS

Worker Safety Regulation and Enforcement

On January 26, 2005, DOE published a supplemental notice of proposed rulemaking, 10 CFR 851, *Worker Safety and Health Rule*, for further public notice and comment. 10 CFR 851, *Worker Safety and Health Program*, was published as a final rule on February 9, 2006. The rule covers both indemnified and non-indemnified contractors and becomes effective and enforceable on February 9, 2007. Contractors must submit their worker safety and health (WSH) programs to DOE for approval by February 26, 2007, and DOE must review and approve submitted programs within 90 days of submission. By May 25, 2007, contractors must achieve compliance with all of the requirements of subpart C and their approved WSH program. No work may be performed after May 25, 2007, unless contractor WSH programs have been approved.

Since WSH enforcement will be similar to nuclear safety enforcement, except for some changes to accommodate the nature of WSH hazards, enforcement procedures will be revised to include WSH and tested at several sites this summer. The NTS system was also revised to incorporate WSH-specific data collection needs. Draft reporting thresholds have been developed and will be tested in NTS during the summer of 2006. In addition, OE has participated in a number of workshops, and additional ones are planned during 2006 so that questions and answers about enforcement can aid in WSH program implementation. OE will also be conducting several prototype occupational safety compliance inspections as a learning experience for both contractor and OE staff in dealing with specific factual situations. OE anticipates the need for additional staff to assist in the WSH enforcement program.

10 CFR 708 Intra- and Inter-Agency Cooperation

In its administration of its role in contractor employee worker protection, OE has reached an understanding with the DOE Office of Hearings and Appeals to be kept apprised of pending cases that may be suitable for Price-Anderson review. In addition, an agreement has been reached with the Department of Labor (DOL) whereby DOL has agreed to inform OE of the

disposition of any cases on its docket that involve claims of retaliation for raising safety issues by DOE contractor or subcontractor employees.

Enforcement Contribution to Improvements in Nuclear Safety Performance

OE significantly expanded its efforts in measuring nuclear safety performance in 2005. OE will continue working on this project in 2006 by (1) implementing a set of performance indicators consistent with its Nuclear Safety Excellence Model, (2) collecting additional site-specific inputs and, (3) issuing a semiannual report that summarizes recent observations and provides supporting indicator data. OE will use these observations to keep senior line management informed of important performance trends, promulgate additional lessons learned and enforcement guidance, and assess whether changes are needed in its enforcement approach or activities.

Transitioning EFCOG to an INPO-like Approach

During the past year, the OE Director challenged the EFCOG Executive Directors to transition EFCOG into becoming more of a self-policing organization, similar to the role the Institute of Nuclear Power Operations (INPO) fills for the commercial nuclear industry. Further discussion between OE and EFCOG (in particular, the EFCOG PAAA Working Group) led to the consideration of a pilot program in which EFCOG representatives would conduct peer reviews of EFCOG member PAAA programs. If determined to be effective, such peer reviews would replace program reviews conducted by OE. During late 2005 – early 2006, the EFCOG PAAA Working Group developed an initial implementation strategy for the “PAAA Peer Review Process” and presented it to the EFCOG Directors. A sub-group was also identified to develop a process and methodology for the conduct of the peer reviews, with the hope of completing at least the initial pilot review by late summer 2006.

Strategic Planning

OE has undertaken the development of a strategic plan to assist it in keeping up-to-date with regulatory compliance trends and issues within the DOE complex, and to aid in effectively addressing them. This process identifies the overall goals OE intends to meet, the current and developing concerns that need to be addressed, proposed solutions and timeframes for their completion, and OE staff assignments. Further, it is OE’s intent to maintain the strategic plan through periodic reviews and updates.

Role of the Price-Anderson Coordinator

During the past year, OE has begun an initiative to encourage the community of Price-Anderson coordinators (with support from their senior management) to expand their involvement in site operations beyond the traditional coordinator functions of overseeing the processes for identifying, screening, reporting, and addressing nuclear safety problems. This traditional role has served the program well, and proactive senior managers have learned to rely on their coordinators as a valuable resource that can be used to keep senior management alert to issues that need to be addressed to avoid future problems which could affect mission success.

Because they see, on a daily basis, safety issues from around the site that are screened for Price-Anderson applicability and reportability, coordinators are in a unique position to have a broad, big-picture view of safety vulnerabilities in contractor programs. For this reason, OE believes that the coordinator role should be expanded such that coordinators become the champions of contractor assurance programs for their respective organizations. Some have referred to these programs as encompassing only compliance assurance, and that is certainly

important. But it is important to remember that the quest to achieve and maintain an excellent nuclear safety culture has been described as consisting of three stages.¹ Being satisfied with bare compliance with safety regulations is only the first stage. The second stage involves a commitment to safety in the absence of regulatory pressure and the setting of safety goals that go beyond compliance. The third stage, in which the safety culture has reached a standard of excellence, involves every individual in the organization striving for continuous improvement. Echoing that view, and using it to describe desired assurance programs, is the relatively new DOE policy DOE P226.1, *Department of Energy Oversight Policy*, which states that to protect the public, workers, the environment, and national security assets:

“...all DOE organizations must implement an assurance system that ensures compliance with applicable requirements, *pursues excellence through continuous improvement*, provides for timely identification and correction of deficient conditions, and verifies the effectiveness of completed corrective actions.” (Emphasis added.)

Clearly, this policy statement views compliance as but one step in an adequate assurance program. The quoted language from P226.1 encompasses the responsibilities of DOE and contractor organizations for which it seems that PAAA coordinators are in a unique position to be the champions.

¹ See *Safety Culture, Keys for Sustaining Progress*, IAEA Bulletin, April 2, 1998.

ACRONYMS and ABBREVIATIONS

CFR	Code of Federal Regulations
DNFSB	Defense Nuclear Facility Safety Board
DOE	Department of Energy
EFCOG	Energy Facility Contractors Group
EGS	Enforcement Guidance Supplement
EH	Office of Environment, Safety and Health
ES&H	Environment, Safety and Health
INPO	Institute of Nuclear Power Operations
LLC	Limited Liability Company
NNSA	National Nuclear Security Administration
NOV	Notice of Violation
NTS	Noncompliance Tracking System
OE	Office of Price-Anderson Enforcement
ORPS	Occurrence Reporting & Processing System
OSH	Occupational Safety and Health
PAAA	Price-Anderson Amendments Act
USC	United States Code
WSH	Worker Safety and Health

APPENDIX A: ENFORCEMENT PROCESS

INTRODUCTION

The DOE Enforcement Program is a congressionally-mandated program to apply sanctions to its contractors for unsafe actions or conditions that violate nuclear safety requirements for protecting workers and the public. DOE provides positive incentives for contractors to strive for an enhanced nuclear safety culture through attention to compliance with requirements, self-identification of problems, reporting noncompliances to DOE, and initiating timely and effective corrective actions. The Enforcement Program is part of DOE's overall Safety Management Program, which focuses on line management responsibility for safety, comprehensive requirements, competence commensurate with responsibilities, and independent oversight and enforcement.

This section provides an overview of the DOE Enforcement Program for those readers who may not be familiar with the Price-Anderson process. Further details on the process may be obtained from the DOE Enforcement Program procedures referred to within this section or by going to the Office of Price-Anderson Enforcement web site at <http://www.eh.doe.gov/enforce>.

Background

The 1988 Price-Anderson Amendments Act¹ extended indemnification to DOE operating contractors for the consequences of a nuclear incident. At the same time, Congress required DOE to initiate an enforcement program and provided authority to assess civil penalties against those contractors that violate nuclear safety rules. The PAAA, in effect, required DOE to establish an internal self-regulatory process. By amendment enacted in December 2002, the effective period of the PAAA was extended until December 31, 2004, and in 2004, it was further extended into 2006. In late 2005, legislation again extended the effective period of the PAAA until December 31, 2025.

DOE's procedural rules for its Enforcement Program are published in 10 CFR 820. Appendix A to that rule sets forth DOE policy on how it intends to enforce its nuclear safety rules. Enforcement actions may include issuance of NOVs and, where appropriate, civil monetary penalties. Implementation of the enforcement program required formal promulgation of rules in accordance with the *Administrative Procedure Act*, to assure the opportunity for public notice and comment. To date, substantive rules in several areas of nuclear safety have been released as final rules: *Nuclear Safety Management* (10 CFR 830), which includes subpart A, *Quality Assurance Requirements*, and subpart B, *Safety Basis Requirements*; and *Occupational Radiation Protection* (10 CFR 835). Additionally, DOE rules on *Contractor Employee Protection* (10 CFR 708), and *Accuracy of Information* (10 CFR 820.11) have been identified as nuclear safety requirements that are also enforceable. During 2007, the Enforcement Program will be expanded to include occupational safety, as described in 10 CFR 851, *Worker Safety and Health Program*. Procedural rules for occupational safety enforcement are included as a part of this regulation.

DOE's first enforcement action was issued in April 1996.² Since then DOE has routinely applied its Enforcement Program by issuing program review letters, enforcement letters, consent orders,

¹ 42 U.S.C. 228a

² EA 96-01, Pacific Northwest National Laboratory

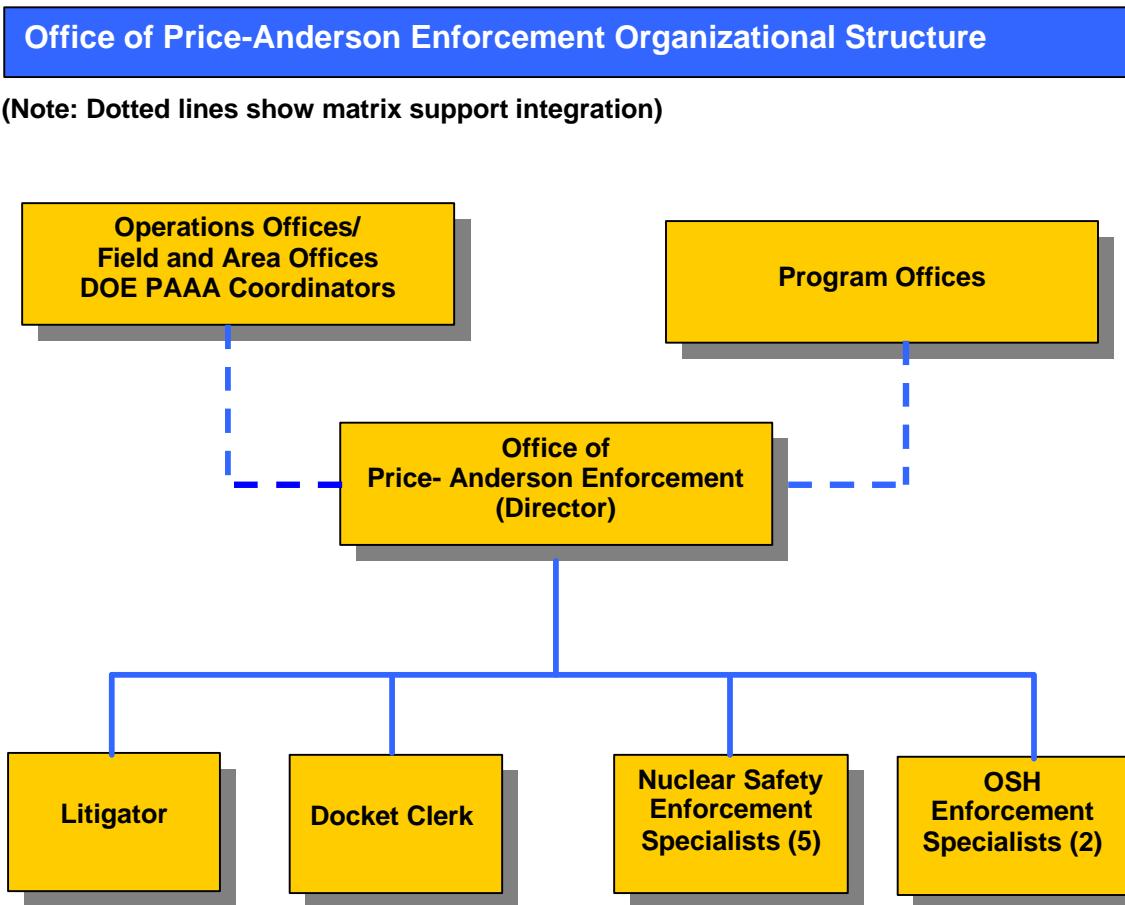
and NOVs, and where appropriate, by imposing civil penalties. The Secretary of Energy is also authorized to issue compliance orders to particular contractors where the need to resolve a safety issue is immediate and apparent. One such order has been issued to date.

Administration

The Department's Enforcement Program is administered by a relatively small staff in OE at DOE Headquarters, linked with PAAA coordinators in Field and Program Offices, and supported by technical experts from both Headquarters and field elements. The program is structured to use existing resources across DOE to assist in evaluating noncompliances and the adequacy of corrective actions. However, the program relies on the independent judgment of OE personnel to assure that enforcement remedies across the DOE complex are consistently and fairly applied.

The OE team includes the Director, eight enforcement staff (including a litigator), a docket clerk, two administrative assistants; two consultant technical experts; and over 50 field and program office coordinators, assisted by numerous other DOE technical specialists. Figure A-1 illustrates the DOE enforcement organization network.

Figure A-1



Noncompliance Identification and Reporting

DOE expects contractors to implement appropriate steps to ensure that their activities comply with nuclear safety requirements. DOE also expects contractors to self-identify noncompliances. Contractors are permitted to track and close noncompliances below the Department's reporting thresholds using their own tracking system. These noncompliances are subject to periodic review and audit by DOE Field Office coordinator personnel. DOE expects that noncompliances meeting the reporting thresholds set forth in its guidance documents³ will be reported into the Department's NTS. Most cases are closed at this stage without an investigation, based on positive contractor initiative and/or low safety significance coupled with completion of actions to correct the noncompliance condition and prevent recurrence.

Noncompliances are also identified independently through DOE Field Office input, Headquarters reviews, DNFSB activities, DOE PAAA Coordinators, DOE's Office of Independent Oversight and Performance Assurance inspections, or through reviews conducted by OE staff. Contractor and DOE employees with noncompliance issues may also directly contact OE staff confidentially or contact the site DOE PAAA coordinator. OE staff, with input from Field and Program Office management, decides which noncompliances have the requisite level of safety significance to warrant an investigation.

An investigation usually involves a review of documentation from the contractor, assistance from DOE Field Office personnel, and in most cases, onsite visits to gather facts about the noncompliance, conduct interviews, and understand contractor actions in response to the noncompliance.⁴ If, in the course of the investigation, DOE concludes that the contractor is not responsive to informal requests for information, a special report order may be issued (pursuant to the authority set forth in 10 CFR 820.8) to obtain the required information. Failure to comply with such an order could result in enforcement sanctions set forth in the rule. DOE also is empowered to issue subpoenas if necessary to obtain required information.

Results of the investigation are documented in an investigation summary report, which is provided to the contractor.

Enforcement Decisions

The primary consideration in determining whether to take enforcement action is the actual or potential safety significance of a violation coupled with a determination of how aggressively the contractor identified, reported, and corrected the problem. The potential for mitigation of enforcement actions in particular cases provides a positive incentive for contractors to implement the desired proactive behavior leading to improved safety performance.

OE staff works closely with DOE Field and Program Office management in making decisions about what enforcement actions are appropriate based on the findings of the investigation. If appropriate, an enforcement conference is held with senior contractor management, along with DOE Field and Program Office management, to review the circumstances of the noncompliance, the mitigating factors, and the timeliness and adequacy of corrective actions. As described in appendix A to 10 CFR 820, DOE classifies the violation as either

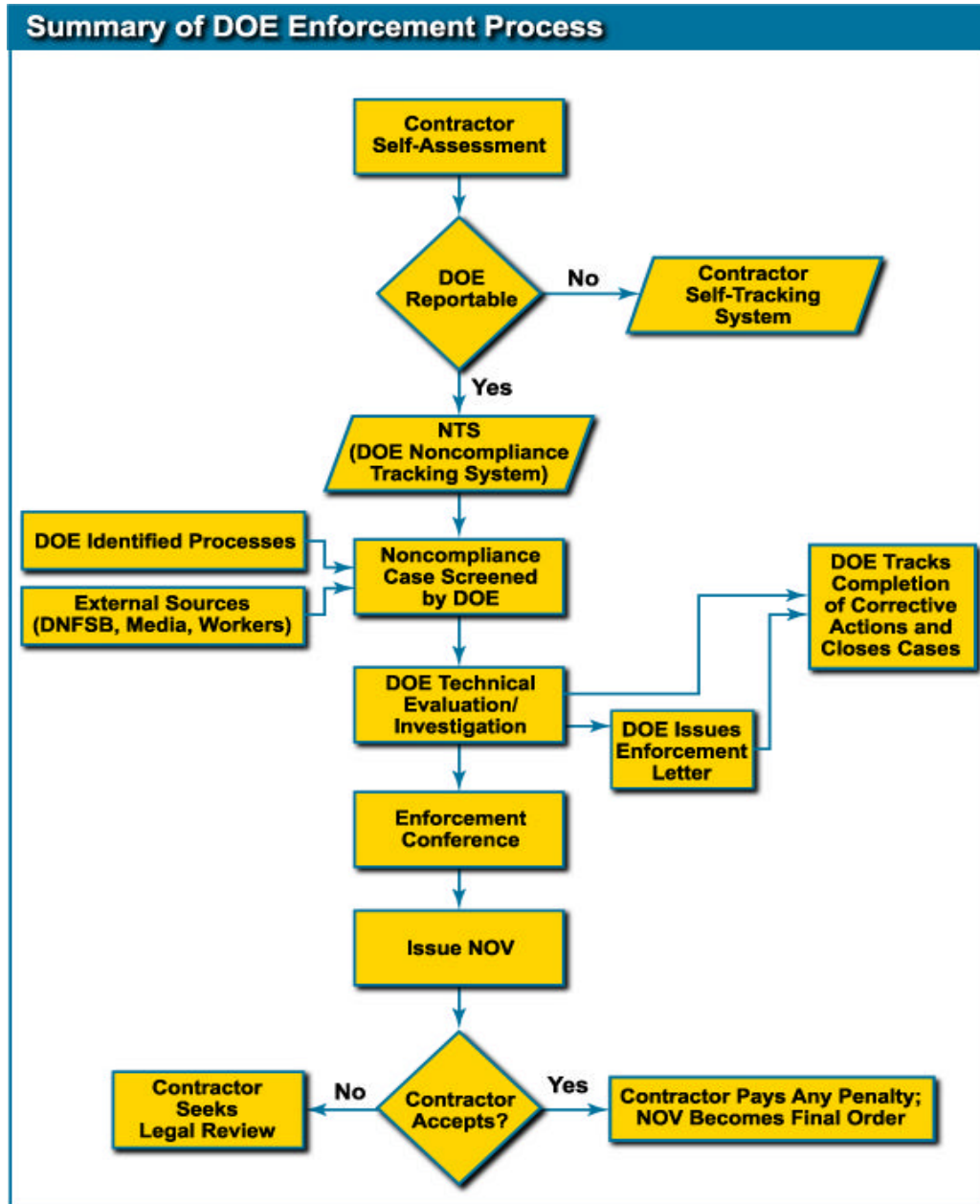
³ DOE's nuclear safety reporting thresholds are contained in *Operational Procedures, Identifying, Reporting and Tracking Nuclear Safety Noncompliances under Price-Anderson Amendments Act of 1988*, and EGS 03-02, *Revision to Occurrence Report-Based Noncompliance Tracking System Reporting Criteria*. Worker safety and health reporting thresholds are currently under development.

⁴ Pursuant to 10 CFR 820, the OE Director may obtain information or evidence for the full and complete investigation of any matter related to a DOE nuclear activity, including classified, confidential, and controlled information.

Severity Level I (most significant, with actual or potential significant consequences to workers or the public), Severity Level II (significant lack of attention or carelessness which could lead to adverse impact to the public or worker), or Severity Level III (greater than minor significance), based on an assessment of the unique facts of each case.

DOE's process and the regulatory authority for enforcement actions are embodied in a regulation (10 CFR 820, *Procedural Rules for DOE Nuclear Activities*), supplemented by the Enforcement Policy (appendix A to 10 CFR 820) and OE procedures.⁵ Figure A-2 graphically depicts the enforcement process.

Figure A-2



⁵ *Operational Procedures for Enforcement, Enforcement of DOE Nuclear Safety Requirements Under Price-Anderson Amendments Act of 1988*, June 1988.

Following an investigation and, if required, an enforcement conference, DOE may pursue a path that includes any of the following, based on the facts and significance of the noncompliance:

- no further action,
- enforcement letter,
- NOV with no civil penalty,
- NOV with a civil penalty, or a
- compliance order.

An enforcement letter may be used when DOE concludes that a particular noncompliance is not at the level of significance warranted for issuance of PNOV, but it is an issue of concern to DOE. The letter puts the contractor on notice that the problem warrants additional attention and needs to be corrected in a comprehensive manner. The enforcement letter notifies the contractor that DOE will close the noncompliance report when verification is received that appropriate corrective actions have been implemented.

In the event that false information has been provided to DOE, or evidence has been destroyed or is incomplete, DOE may refer the matter to the Department of Justice for further investigation.

Decisions concerning the severity level, appropriate enforcement action, and magnitude of any civil penalty are dependent on safety significance, initiative by the contractor in identification and reporting, and timeliness and effectiveness of corrective actions. With appropriate identification, reporting, and corrective actions by the contractor, the Department can waive all or part of the civil penalty and, in some cases, refrain from further action entirely. Civil penalties are limited by statute to a maximum of \$110,000 per violation per day.⁶ Base civil penalties for Severity Level I violations are set at 100 percent of the statutory limit per violation per day (i.e., \$110,000). Base civil penalties for Severity Level II violations are set at 50 percent of the statutory limit (i.e., \$55,000) per violation per day, and for Severity Level III violations are set at ten percent of the statutory limit (i.e., \$11,000) per violation per day.⁷

The PAAA statute provides an exemption from civil penalties for certain not-for-profit contractor entities, and 10 CFR 820 extended this exemption to all not-for-profit DOE contractors that are educational institutions. However, DOE is authorized to issue NOVs to all such not-for-profit contractors. Additionally, certain activities are excluded from DOE's nuclear safety requirements and from enforcement action by DOE. These activities include matters regulated by the Nuclear Regulatory Commission or under the authority of the Director, Naval Nuclear Propulsion Program.

In response to an NOV, contractors are required to document specific actions taken and planned to prevent recurrence of similar events. The contractor has several options available in responding to the findings. They can admit to the violations and pay any civil penalty, if applicable, or deny the violation and seek redress through an escalating series of steps set forth in the rule. They can also request a decrease in the amount of civil penalty while admitting the violation. Settlement can occur at any point in the process.

⁶ On October 2, 1997, Part 820 was amended to increase the maximum civil penalty from \$100,000 to \$110,000 per violation. This increase was accomplished in accordance with the *Debt Collection Improvement Act of 1996*.

⁷ On November 7, 1997, DOE amended its *General Statement of Enforcement Policy* to simplify the method by which these civil penalties are calculated. (The previous policy based a civil penalty on the type of nuclear facility where the violation occurred.) Under the new policy, civil penalties are based primarily on the safety significance of the violation without regard to the type of nuclear facility or activity involved in the violation.

Another vehicle authorized by the nuclear safety procedural rules is the consent order. In 10 CFR 820.23, DOE is authorized to issue consent orders in appropriate cases. A consent order is an agreement signed by DOE and a contractor that stipulates (1) the conclusions of fact and/or law, (2) any monetary remedy to be paid by the contractor, and (3) any corrective actions to be taken by the contractor. DOE may elect to use such an approach to resolve a case if the contractor reported the issues in a timely way, investigated the issues thoroughly, and resolved the issues in a timely and comprehensive manner. Equally important, the contractor must have a history of reliably addressing its nuclear safety problems in a timely and comprehensive manner.

The consent order approach benefits the contractor by rapidly resolving the issues underlying the nuclear safety problem and has the potential for lower penalties than would have been experienced from a full DOE investigation and enforcement action. If the contractor fails to comply with the terms of the consent order, DOE retains the right to proceed with a traditional enforcement action.

Another tool available to DOE is the compliance order, issued pursuant to DOE's authority under subpart C of 10 CFR 820, sections 820.40 - 820.43. A compliance order is a Secretarial directive requiring a contractor to take certain specified actions to remedy a problem or to come into compliance within a specified time frame. The specific actions directed in a compliance order are related to nuclear safety requirements and, thus, are independently enforceable under 10 CFR 820. Failure to perform the actions specified could lead to issuance of an NOV with civil penalties, if applicable. Compliance orders are used sparingly, but would apply when the following elements are present:

- conditions indicate problems of substantial safety importance or a broad programmatic breakdown,
- a significant safety condition exists that must be promptly corrected or prevented,
- a contractor has had sufficient opportunity to correct the condition but has not acted promptly, or
- DOE needs additional assurance that the contractor will correct the condition in a timely manner.

For all types of enforcement proceedings, the contractor's commitment to complete corrective actions in accordance with its schedule becomes part of the enforcement proceeding record. Commitments on the completion of corrective actions are entered into and tracked in the NTS. Field office personnel verify completion of all corrective actions before a case is closed.

Information on a particular enforcement proceeding is available to the public once a case is final. The Docket Clerk maintains these records at DOE Headquarters.⁸

DOE's approach to enforcement involves some relatively innovative methods to maximize human resources and to better motivate contractor ownership of compliance and safety. This approach is expected to result in a more effective and efficient regulatory process that, in conjunction with other elements of the DOE Safety Management Program, will improve the health and safety of the public and workers engaged in DOE activities.

⁸ Office of the Docket Clerk, Office of Price-Anderson Enforcement (EH-6), 20300 Century Boulevard, Germantown, Maryland 20874; (301) 903-0100.

Further guidance on DOE's PAAA enforcement process may be found in *Operational Procedures for Enforcement, Enforcement of DOE Nuclear Safety Requirements under Price-Anderson Amendments Act of 1988*, June 1998. Guidance is also found in 10 CFR 820, *Procedural Rules for DOE Nuclear Activities*, subpart B, *Enforcement Process*, and its appendix A, *General Statement of Enforcement Policy*.