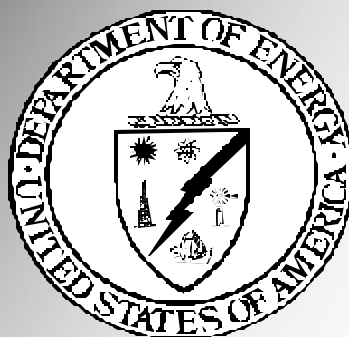


2003 Annual Report



U.S. Department of Energy

Office of Price-Anderson
Enforcement

Nuclear Safety
Enforcement Program

April 2004

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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, 2003, to December 31, 2003. This report also highlights program improvements planned for 2004.

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 2003. 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, *DOE Contractor Employee Protection Program*, DOE may take enforcement action against contractors that are found to 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 improve nuclear safety in the DOE complex by providing incentives for voluntary compliance with nuclear safety requirements coupled with a credible deterrent to noncompliance. 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.

During 2003, the Enforcement Program continued to address problems in work processes, radiation protection, safety basis adherence, contractor self-assessment and quality improvement. In 2003, DOE issued ten NOVs with civil penalties totaling \$1,305,000 to DOE contractors for significant violations. Of this amount, \$522,500 was waived due to the statutory exemption for specific not-for-profit contractors. Figures 1-1 and 1-2 summarize the 2003 enforcement activities and civil penalties, and they provide similar statistics from previous years. Specific details on each of the enforcement actions are contained in chapter 2. Copies of the complete Enforcement Actions are also available on the OE web site.¹

Also during 2003, contractors self-reported 224 nuclear safety noncompliances into DOE's Noncompliance Tracking system (NTS) for review by OE (Figure 1-3). In addition, to determine potential Price-Anderson applicability, OE performed a 100 percent review of all occurrence reports in 2003 as well as a review of other sources of operational information (e.g., Defense Nuclear Facility Safety Board, Inspector General, Office of Independent Oversight and Performance Assurance) that were not reported into the NTS. Further, in 2003, OE focused increased attention on compliance failures regarding contractor assessment activities and their corrective action management process.

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

Figure 1-1: Enforcement Actions Taken

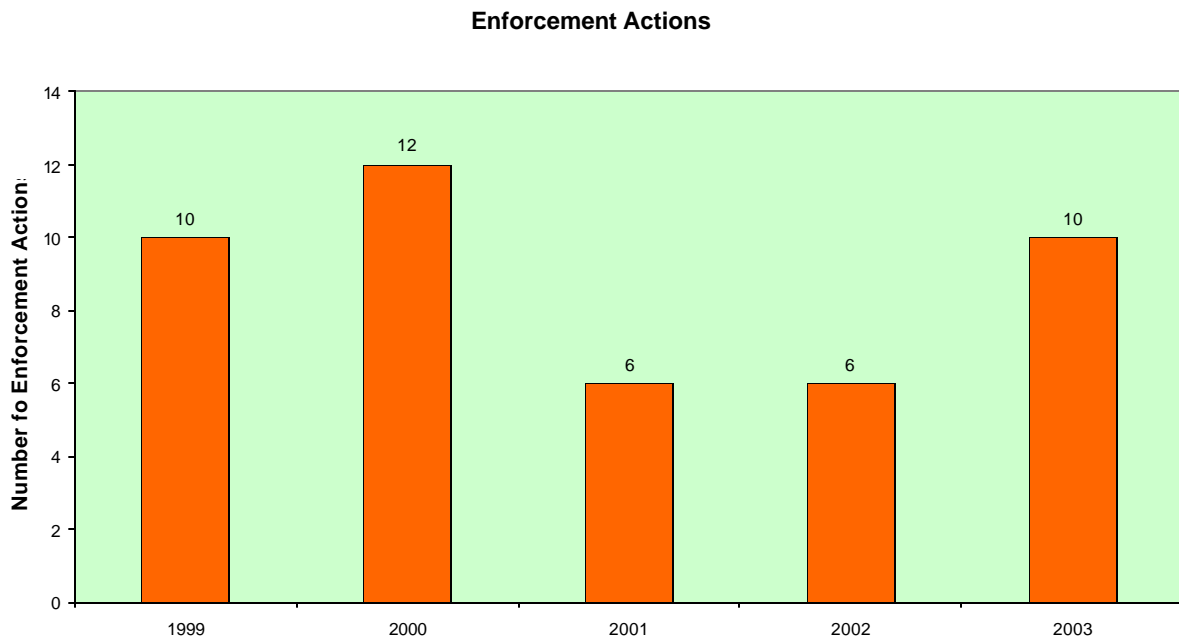


Figure 1-2: Civil Penalties Imposed

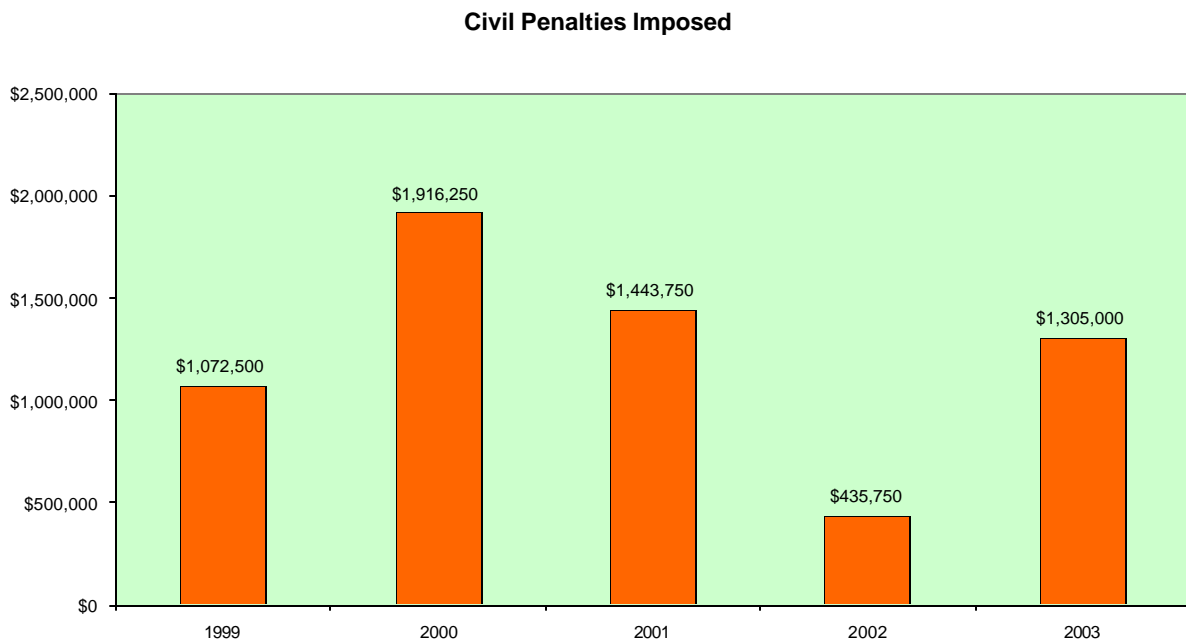


Figure 1-3: NTS Reports Submitted

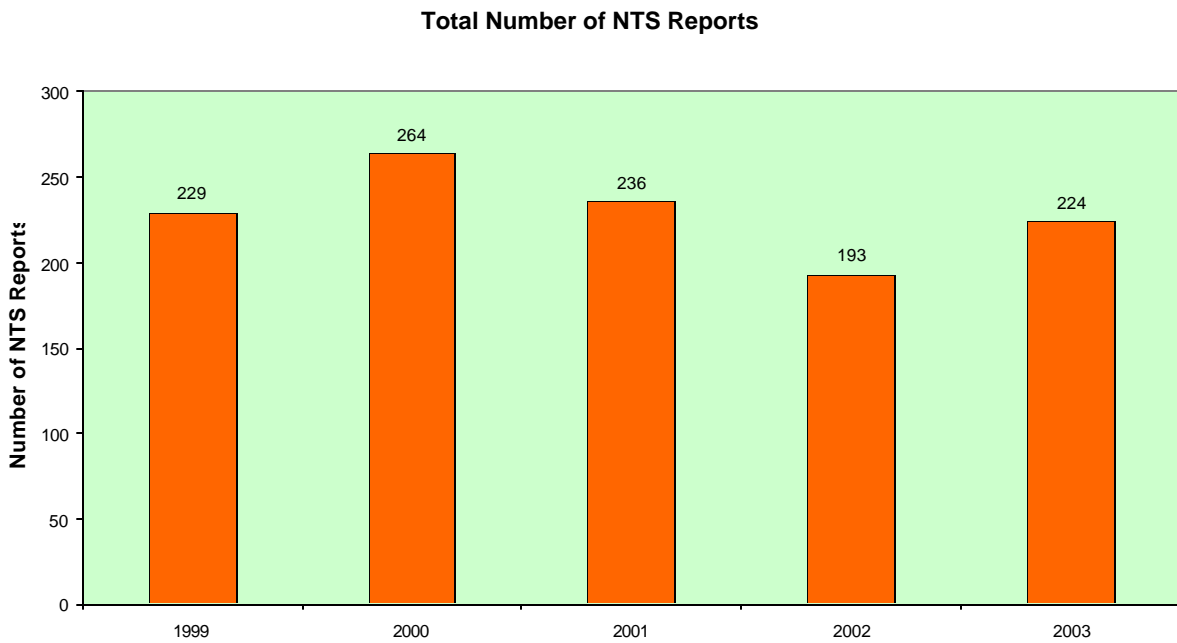
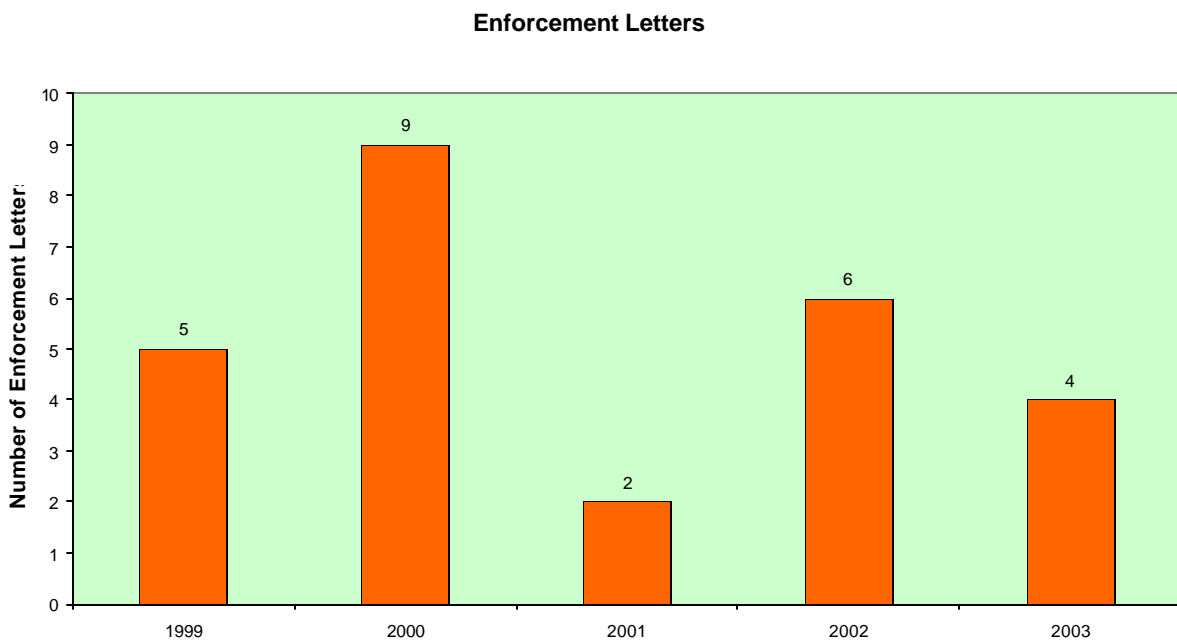


Figure 1-4: Enforcement Letters



Other OE 2003 activities included issuance of four Enforcement Letters to contractors

(Figure 1-4); completion of six PAAA program Reviews at selected sites; and issuance of two

Enforcement Guidance Supplements. Further details on OE activities in 2003 are described in chapter 4 of this report.

In 2004, OE will continue most of the same program activities as in 2003, but also intends to place increased focus on the following: shift from event-driven to assessment-driven problem identification; contractor's corrective action management process; continuation of PAAA program reviews using a graded approach and developing the practical details associated with an Enforcement Policy for forthcoming worker safety rules. Details on activities planned for 2004 are contained in chapter 5.

2. SIGNIFICANT ENFORCEMENT ACTIONS

Introduction

In CY 2003, OE took several significant enforcement actions. These actions are detailed below.

UT – Battelle Cited for Work Control and Quality Improvement Deficiencies (EA 2003-10)

Oak Ridge National Laboratory (ORNL) is a multi-program science and technology laboratory managed for the U.S. Department of Energy by UT-Battelle, LLC. Scientists and engineers at ORNL conduct basic and applied research and development to create scientific knowledge and technological solutions in the key areas of science, energy, environmental restoration and protection, and national security. ORNL also performs other work for the Department of Energy, including isotope production.

On November 18, 2003, DOE issued a Notice of Violation (NOV) to UT-Battelle related to ongoing maintenance performance problems at the ORNL High Flux Isotope Reactor (HFIR) and operational work control problems at the Radiochemical Engineering Development Center (REDC) hot cell facilities. The NOV included an associated civil penalty of \$151,250.

At the HFIR facility, the reactor had to be manually shutdown on January 30, 2003, due to an anomaly with a reactor control cylinder (Figure 2-1). The problem was determined to be an incorrectly wired servomotor (Figure 2-2) that was replaced in the preceding outage. Post-event reviews identified programmatic quality problems with several recent outage maintenance and modification work activities. Underlying or contributing causes were identified, including the following: (1) inadequate planning and safety grading of maintenance work packages (MWP), (2) unauthorized MWP work scope changes and work implementation issues, and (3) ineffective post-maintenance testing.

Figure 2-1

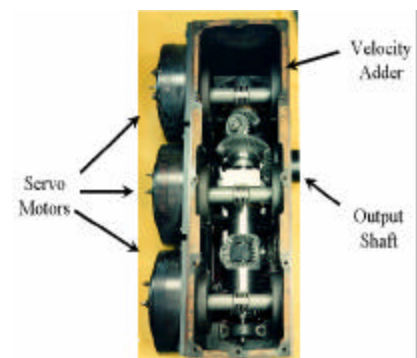
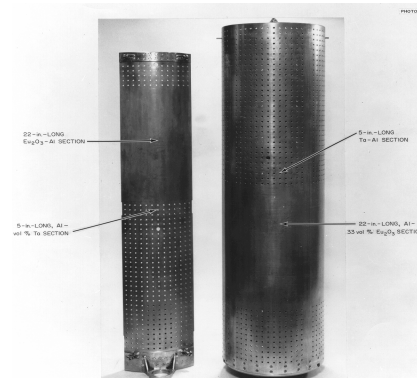


Figure 2-2

At the REDC hot cell facilities, processing of highly radioactive solutions occurred over multiple shifts without the required hot cell containment roof blocks in place. This represented a significant violation of REDC Technical Safety Requirements (TSR). Underlying or contributing causes included the following: (1) no formal processes for conducting facility mode changes, (2) only limited systems existed for hot cell configuration status tracking and posting, and (3) only limited staffing existed at the time of the event for controlling the work.

The NOV also cited problems with ORNL's quality improvement processes to identify, correct, and prevent recurrence of deficiencies, ORNL's self-assessment and independent oversight processes, and ORNL's management program structure, interfaces, and staffing.

The NOV included five Severity Level II violations and two Severity Level III violations. All of the violations were substantially mitigated in recognition of UT-Battelle's senior management response that included multiple event investigations, detailed causal analysis, and extensive corrective actions.

Lawrence Livermore National Laboratory Cited for Work Control and Radiological Control Violations (EA-2003-04)

The Lawrence Livermore National Laboratory (LLNL) is a multi-program national laboratory operated by the University of California for the DOE National Nuclear Security Administration (NNSA). On September 3, 2003, at the recommendation of OE, NNSA issued a NOV to LLNL for violations involving the June 2002 significant radiation overexposure to a worker's hands. The radiation dose assigned to one of the worker's hands was more than twice the federal regulatory limit. LLNL is exempt from civil penalty by statute. However, if LLNL were not exempt, a civil penalty of \$137,500 would have been assessed based on the safety significance of the violations involved in this case.

In June 2002, a LLNL radiological worker performed chemical separations on radioactive material. As part of his radiation protection equipment, the worker wore dosimeter rings on his hands during the chemical separations. In July 2002, the results of routine dosimeter processing indicated the worker's hands had received a radiation dose significantly in excess of the 10 CFR 835 annual extremity exposure limit of 50 rem.

LLNL established a Dose Reconstruction Committee (DRC) to determine the official dose of record to the radiological worker. The DRC (1) performed radiation surveys, (2) conducted ring dosimeter studies on the radioactive material, (3) validated the performance of the dosimeters worn by the radiological worker, and (4) interviewed the radiological worker and a second nuclear chemist to estimate handling

times. The DRC's review concluded that the worker's hands should have been exposed to a significantly lower dose (by approximately a factor of 10) during this work. However, the DRC's review also concluded that the worker's dosimeter rings had responded accurately and the rings had been exposed to radiation doses of the range represented by the dosimeter results. The review could not identify an alternate exposure scenario to account for the high radiation exposures received by the dosimeter rings and therefore concluded that the dosimeter results should be assigned to the worker's dosimetry record.

In addition to the overexposure, OE and NNSA had concerns regarding radiation protection and work control deficiencies associated with this work. The deficiencies included the failure to post the working area to warn of radiation levels and the failure to effectively implement the As Low As Reasonably Achievable (ALARA) process to limit the worker's exposure. NNSA cited LLNL for two Severity Level II violations for these radiation protection deficiencies. Deficiencies in work controls included the failure to notify the Environment, Safety and Health (ES&H) personnel of radiological conditions as required by LLNL's nuclear safety procedures and the failure to implement a required hazard assessment and operational safety plan. NNSA cited LLNL for one Severity Level II violation for these issues.

NNSA determined that no mitigation for timely self-identification or reporting was appropriate, since the overexposure was a self-disclosing event. Additionally, and consistent with enforcement precedent, no mitigation was considered for corrective actions associated with the overexposure violation. NNSA concluded that 25% mitigation was warranted for the violations dealing with inadequate radiological controls and work process violations; this was based on the scope of corrective actions taken within the directorate. However, full mitigation (i.e., 50%) for corrective actions was not provided because LLNL's investigation failed to fully assess the extent of condition of the procedural compliance deficiencies outside the directorate and also failed to address the inadequacies in the ES&H technician "technical inquisitiveness" described in both the NNSA Type B investigation and in the OE Investigation Summary Report. As noted, the civil penalty has been waived because LLNL is exempt by

statute. LLNL acknowledged the violations and provided commitments on corrective actions to address the problems.

Los Alamos National Laboratory Cited for Work Process and Radiological Control Violations (EA-2003-02)

The Los Alamos National Laboratory (LANL) is a multi-program national laboratory operated by the University of California for the DOE/NNSA. On April 10, 2003, at the recommendation of OE, NNSA issued an NOV to LANL for deficiencies involving two radiological events in 2002 and for safety basis issues which occurred from 2000 to 2002. LANL is exempt from civil penalty by statute. However, if LANL were not exempt, a civil penalty of \$ 385,000 would have been assessed based on the safety significance and the repetitive nature of the work and radiological control deficiencies.

On March 13, 2002, a radiological worker cut plutonium contaminated lines without the appropriate hazards analysis, work planning, work authorization or radiological controls. As a result of this event, seven workers received uptakes of plutonium and significant plutonium contamination was spread throughout the room. Although the actual uptakes of radioactive material for the workers were minimal, these uptakes were limited by fortuitous circumstances and not by effective work controls. NNSA cited LANL for two Severity Level II violations for these radiation protection deficiencies.

On September 26, 2002, two crafts personnel, without authorization, accessed the roof of TA-8 during radiography operations. The event involved failures in radiological surveys and posting, work control, communications and procedural compliance. NNSA cited LANL for one Severity Level III violation and one Severity Level II violation for deficiencies associated with this event. Although this event did not result in actual harm to the employees, the investigation identified long-standing noncompliance with multiple elements of the access control procedure, based in part on a lack of recognition by the operating staff of the requirements and their applicability.

The safety basis violations documented in this NOV occurred at the TA-18 and TA-48 facilities. Safety basis issues have been the subject of repeated enforcement actions by NNSA, and

these violations represented a failure by LANL to operate and maintain the identified nuclear facilities in accordance with the safety requirements developed by LANL and approved by NNSA. The violations involved the operation of a critical assembly with a missing engineered safety feature and multiple noncompliances with the Technical Safety Requirements. NNSA cited LANL for three Severity Level II violations associated with the safety basis issues. Although none of the events resulted in harm to employees, they were of concern because they placed the facilities outside the facility safety boundaries established by NNSA.

Additionally, LANL was cited for one Severity Level II violation for quality improvement issues since LANL's previous corrective actions had not been effective in preventing the recurrence of the radiological and safety basis violations.

NNSA determined that no mitigation was warranted for timely self-identification and reporting or effective corrective actions, given that several issues were self-disclosing events and due to the recurring nature of the violations. NNSA had considered escalating the quality improvement violation to a Severity Level I violation based on the long-standing weaknesses of LANL management to recognize and correct nuclear safety deficiencies at the institutional level. However, LANL provided significant commitments to NNSA to strengthen senior laboratory management and to implement site-wide actions to improve quality processes. As noted previously, the civil penalty has been waived because LANL is exempt by statute. LANL acknowledged the violations.

Consent Order Issued to Fluor Fernald (EA-2003-05)

The Fernald Closure Project (or Fernald site) is a former uranium processing facility located in southwest Ohio. Fernald is currently undergoing site closure and environmental restoration. Fluor Fernald, Inc. (Fluor Fernald) is the closure project contractor for the Department of Energy at the Fernald site, and is responsible for all site remediation activities.

On August 14, 2003, DOE entered into a Consent Order Agreement with Fluor Fernald related to an event involving an unposted High Radiation Area in a fenced area behind a small concrete building (Hut 5) used for

thermoluminescent dosimeter (TLD) irradiations. The unposted condition, present during irradiator operations, persisted for over a year until discovery by a DOE facility representative. Follow-up review identified no apparent unplanned radiation exposures resulting from the unposted condition. Figure 2-3 shows Hut 5; during TLD irradiations the High Radiation Area was present in the small fenced area directly behind Hut 5.

Fluor Fernald was consistently open and proactive in reporting potential noncompliances, and had effective programs in place for identifying and correcting nuclear safety deficiencies. In light of the above considerations, DOE concluded it was appropriate to enter into a Consent Order agreement, in lieu of an enforcement action, in the Hut 5 case. As part of the settlement agreement, Fluor Fernald agreed to pay a monetary remedy in lieu of a civil penalty in the amount of \$40,000.

Figure 2-3



Fluor Fernald's investigation into the event identified multiple deficiencies, including inadequate radiological survey practices, procedural violations, the lack of effective radiological engineering and activity startup reviews, and deficiencies in Fluor Fernald oversight and assessment of its work activities. Fluor Fernald's investigation also noted similarities between the Hut 5 event and a previous radiological posting event in August 2000, which was the subject of a prior enforcement action.

In recognition of the significance of the deficiencies associated with the Hut 5 event, Fluor Fernald commissioned an independent, broad scope review of the site Radiological Control Program as part of their investigation into the event. Corrective actions developed in response to the investigation and independent review were broad in scope and included significant actions at the programmatic level.

Overall, DOE found Fluor Fernald's response to the event to be thorough and aggressive. DOE also viewed Fluor Fernald as having an effective "history" of nuclear safety performance; i.e.,

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3. CASES REFLECTING ENFORCEMENT DISCRETION

Introduction

As discussed in more detail in chapter 4, OE refrains from pursuing formal enforcement action for the large majority of nuclear safety issues that come to its attention. For a subset of cases in which no formal enforcement action is taken, DOE issues an Enforcement Letter. Such a course of action is generally taken when the immediate issues involved are of a lower safety significance and (1) increased attention by the contractor is necessary to prevent a more serious problem, or (2) contractor actions in addressing the issues involved have been effective in identifying, reporting and correcting the problem, prompting DOE to determine that formal enforcement action is not appropriate.

In 2003, OE issued four Enforcement Letters, copies of which are available on the OE web site. The following section summarizes two of these Enforcement Letters.

Enforcement Letter Issued to LANL for Noncompliances Involving Radiological and Safety Basis Work Control

LANL is a multi-program national laboratory operated by the University of California for the DOE/NNSA. During May through July 2003, LANL reported several events that were similar in nature to ones previously investigated and cited in an April 2003 NOV (see chapter 2 of this report for details). Specifically, the events involved instances of failure to follow work control processes, failure to properly implement safety basis requirements, and a series of glovebox activities and conditions that resulted in elevated airborne radioactivity occurrences.

In May of 2003, personnel received minor uptakes and a non-radiological area became inadvertently contaminated with tritium during removal of copper piping within the Ion Beam facility. The pipe removal activities were performed under a general facility work order and instruction that did not authorize nor address the pipe removal. The pipe was removed because it obstructed the access for

the authorized removal of other non-radiological facility equipment. The decision to remove the pipe represented an in the field change to work scope that resulted in the circumvention of site work controls for radiological activities. Eight additional work control events were also reported at this time.

In June of 2003, an event occurred in which the maximum nuclear inventory limit was exceeded for a radiological facility. The direct cause of this event involved a non-conservative calculational error concerning the activity of an item stored within the facility.

In the first six months of 2003, LANL experienced several events involving elevated airborne radioactivity levels. The events resulted in both personnel and room contaminations. Although the events appeared to be caused by random glovebox glove failures, OE was concerned that the frequent and repetitive nature of the events may be indicative of both quality improvement and programmatic issues.

In July of 2003, OE issued an Enforcement Letter highlighting all of these issues. Although formal enforcement action would otherwise have been justified for the noncompliances cited in this letter, OE chose to exercise discretion and forgo such formal action in recognition of (1) the recent change of senior Laboratory management and the commitments made by the new Director regarding extensive corrective actions designed to address basic nuclear safety issues, and (2) the recognition by OE that the corrective actions, just recently initiated in response to the April 2003 Enforcement Action, would take more time to be fully implemented and effective. OE also indicated its intent to continue to follow LANL's progress in addressing these nuclear safety problems.

Enforcement Letter Issued to BNFL

BNFL is the contractor performing decommissioning and dismantling (D&D) of the K-29, K-31, and K-33 gaseous diffusion facilities located at the East Tennessee Technology Park, near Oak Ridge. During early 2002, BNFL acquired additional senior staff to more effectively manage its D&D work. Towards the end of 2002, the company furthermore undertook a significant revision and improvement initiative for its PAAA program that included an extensive review of its existing procedures as well as previous occurrence and nonconformance reports.

During May 2003, OE staff conducted a review of BNFL's PAAA program and found the program had been substantially upgraded and better integrated into the D&D activities, and OE stated so in its summary report to BNFL. However, in preparing for the review, it was found that BNFL submitted three noncompliance reports describing the following programmatic issues:

- Weaknesses in BNFL's issue screening process to determine PAAA noncompliance where BNFL's PAAA Review Board failed to correctly identify and report a large number of reportable noncompliances.
- Weaknesses in the Management Assessment Program where BNFL's management failed to adhere to its own assessment schedule. Furthermore, the assessments that were conducted were found to be inadequate since they did not identify any noncompliances where clearly some existed.
- Weaknesses in the implementation of the inspection and testing portion of the procurement process. These deficiencies occurred over an 18-month period.

OE chose to exercise enforcement discretion in addressing these issues by issuing an enforcement letter on the bases of the recent management changes BNFL had made and the substantive improvements made to its PAAA program.

4. ACCOMPLISHMENTS AND ACTIVITIES

Program Activity

Worker Safety and Health Rulemaking

H.R. 4546, the *Bob Stump National Defense Authorization Act for Fiscal Year 2003*, amended the Atomic Energy Act by requiring DOE to promulgate regulations for protecting worker occupational safety and health (OSH) at DOE. That legislation also provided authority for DOE to impose civil monetary penalties on Price-Anderson indemnified contractors that violate the provisions of the new regulations. The maximum civil penalty that may be imposed under the statute is \$70,000 per violation per day. Contractors will be subject to contractual or civil penalties for a given violation of the new regulations, but not both. There is no exemption from civil penalties for certain not-for-profit contractors under this legislation as there is for nuclear safety violations. However, the statute provides that the amount of civil penalties imposed in any year cannot exceed the total fees paid to the contractor in that year. Enforcement of the new regulations would not begin until after a one year implementation period following publication of the final rule.

During 2003, OE worked with other Department personnel to develop proposed 10 CFR 851, *Worker Safety and Health*, which was published for public comment on December 8, 2003. Following the receipt and initial review of public comments, the rulemaking was suspended on February 27, 2004, by publication of a Federal Register Notice which stated that "The purpose of today's notice of suspension is to allow time for DOE to consult with the DNFSB in order to resolve its concerns. DOE will also consider the concerns of other interested stakeholders as appropriate." DOE is now in the process of addressing the comments received and making appropriate revisions to the proposed rule.

How are we (PAAA Enforcement) Impacting DOE Nuclear Safety?

OE has always viewed the enforcement program as a tool to promote proactive behavior by contractors to improve nuclear safety performance. During 2003, OE initiated a review to try to determine whether the enforcement program is having the desired impact. The intention is to look at all mechanisms used by the enforcement program to carry out its mission, including formal enforcement action, enforcement letters, program reviews, the NTS system and the OE website. Because the Department has focused on a performance-based approach to the management of its activities over the past several years, emphasizing quantifiable performance metrics, OE initially discussed whether such metrics could be used to assess the impact of the enforcement program on nuclear safety performance in the DOE complex. After substantial discussion and analysis, both within DOE and with the contractor community, OE concluded that the use of quantifiable metrics was not possible at this time. That conclusion was based upon the variations in mission and levels of hazards from site to site, the difficulty in attempting to isolate the PAAA contribution to nuclear safety improvements from the other efforts aimed at that goal, and the still relatively limited enforcement data set.

As the result of these considerations, OE decided to carry out this assessment in phases. For the first phase, a direct survey of sites was used, and fourteen sites provided specific examples of program or process changes improving some aspect of nuclear safety performance that were made as the direct result of PAAA enforcement-related activities. While admittedly anecdotal in nature, over 50 nuclear safety improvement initiatives were cited. Specific areas of improvement were noted in contractor self-assessment, quality improvement, oversight, work control, and

procurement to name a few. Lessons learned information as communicated through the OE web site was often cited as a primary source of information to drive the improvement initiatives. Examples of information used for lessons learned included: Notices of Violation, PAAA program review results, Enforcement Guidance Supplements, and NTS reports from other sites.

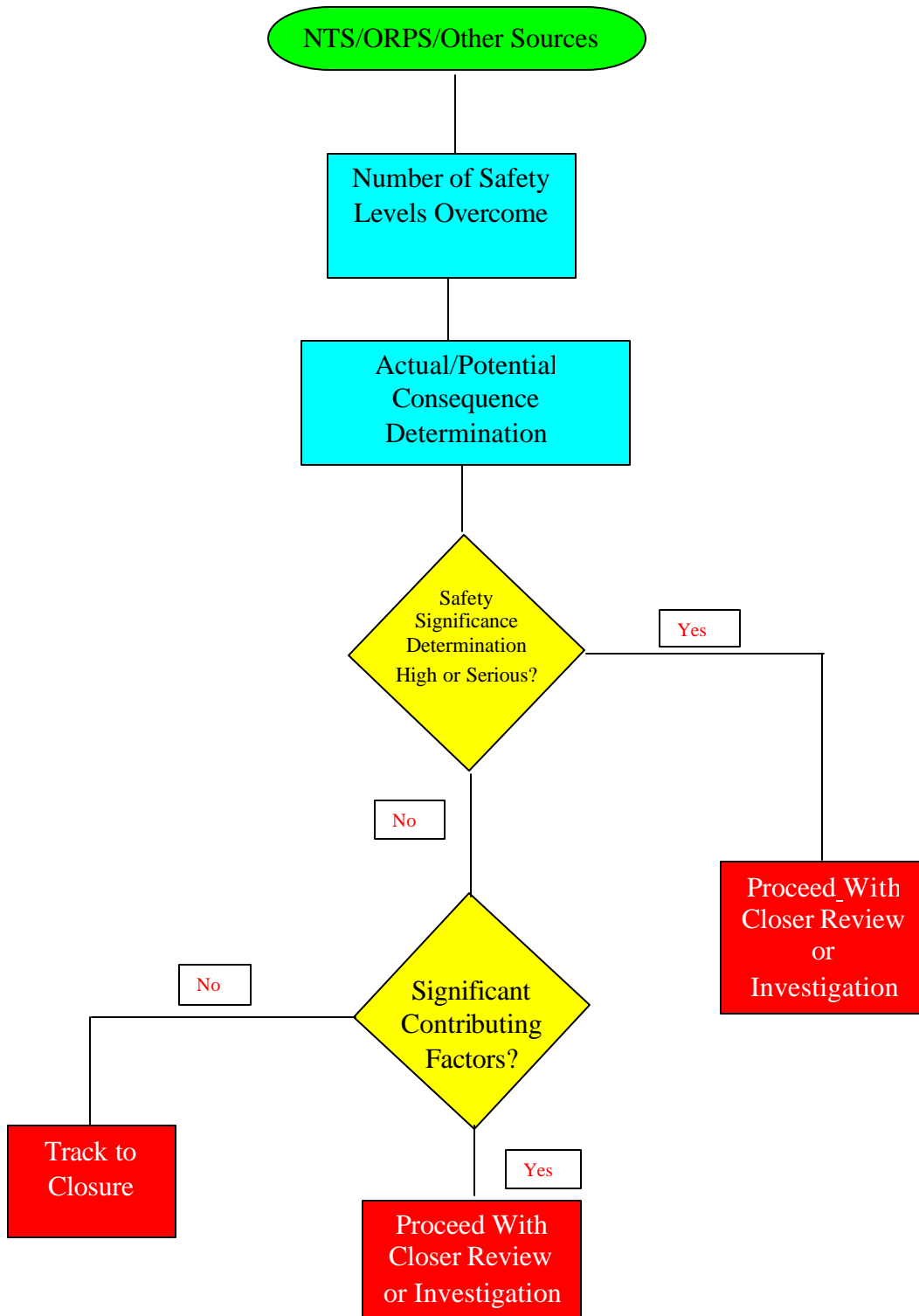
Continued efforts to better determine how PAAA enforcement is impacting DOE nuclear safety are planned in 2004 and are discussed in more detail in chapter 5 of this report.

Structured Approach to Decision Making

In an effort to enhance the consistency by which OE investigators evaluate new operational information (e.g., NTS reports, occurrence reports, DNFSB reports), OE developed a more structured approach to decision making regarding significance of issues. The approach aids OE investigators in determining if further investigatory effort is needed beyond that which is provided in the report under consideration and draws from similar work previously developed by the Nuclear Regulatory Commission. The following is a flow chart (Figure 4-1) depicting the process logic.

Figure 4-1

Structured Approach to Decision Making Model



Upon receipt of an NTS report (or others sources of operational information), the OE investigator first evaluates the number of safety levels overcome. These safety levels overcome by the incident or circumstance described in the report can be viewed as levels of safety protection based on the nuclear safety defense-in-depth philosophy.

The next step in the process involves the determination of the actual or potential consequences posed by the hazards associated with the incident or circumstance. Based on these two pieces of information, a safety significance determination is made. If the result of this safety significance determination is “high” or “serious,” then the OE investigator will proceed with further investigatory efforts. However, if the results of the significance determination is “low” or “marginal,” then other contributing factors are evaluated, such as duration of the violation, identifier of the problem (DOE or contractor), or prior noncompliance history. If these other contributing factors are of particular significance, then the investigator will proceed with further investigatory effort. However, if the safety significance is “low” or “marginal” and the other contributing factors are not significant, then no additional investigatory effort is undertaken and the report will be tracked to closure.

This structured approach to decision making was implemented for use by all OE investigators in 2003.

Enforcement Guidance Supplement

DOE's enforcement procedures¹ provide the opportunity for OE to periodically issue clarifying guidance regarding the processes used in OE enforcement activities. The vehicle OE uses is the Enforcement Guidance Supplement (EGS). During 2003, DOE issued two EGSs.

EGS 03-01: Supplemental Guidance Concerning the Factual Basis for Issuing

¹ *Operational Procedure for Enforcement, Enforcement of DOE Nuclear Safety Requirements Under Price-Anderson Amendments Act of 1988, June 1998.*

Consent Orders Pursuant to 10 CFR 820.23

In October 2000, OE issued EGS 00-04, *Factual Basis for Issuing Consent Orders Pursuant to 10 CFR 820.23 and Compliance Orders Pursuant to 10 CFR subpart C,* which, in part, established criteria OE would use in applying its enforcement discretion as it related to the use of Consent Orders. A pivotal aspect of EGS 00-04 is that the willingness of DOE to enter into a Consent Order represents the OE conclusion that **confidence, built up over time**, is warranted in the contractor's ability to anticipate precursor problems, to comprehensively investigate issues, and to properly resolve nuclear safety issues.

EGS 03-01 stresses the fact that this **confidence must be built up over time**. The simple fact that a contractor has taken recent aggressive action to deal with a particular nuclear safety issue is insufficient for OE to enter into a Consent Order agreement. Such action may justify partial mitigation of a civil penalty in some cases but is inadequate to justify use of a Consent Order. Similarly, recent changes in contractor senior management and resultant improvements in nuclear safety performance over the past few months is not sufficient.

In making the final determination concerning the contractor's history of nuclear safety performance, OE will review its own experience regarding the contractor's enforcement history and will solicit additional input from other organizations such as local DOE, Headquarters line management, and the NNSA.

EGS 03-02: Revision to Occurrence Report-Based Noncompliance Tracking System Reporting Criteria

To assist contractors in determining whether a noncompliance should be reported into the NTS, OE established reporting criteria that are in the *OE Operational Procedures, - Identifying, Reporting, and Tracking Nuclear Safety Noncompliances Under Price-Anderson Amendments Act of 1988*. Table 3-2 of this operational procedure addresses established criteria based on Occurrence Reporting and

Processing System (ORPS) occurrence categories relating to NTS reporting of nuclear safety event-related noncompliances.

In August 2003, DOE approved a major revision to DOE Order 231.1A and its associated Manual. The changes made to this Order and Manual significantly impacted the NTS reporting criteria OE had established in Table 3-2, thus requiring a revision to the Table. OE drafted a revision to Table 3-2 and submitted the revision to DOE and DOE contractor PAAA community for comment.

Based on comments received, it was determined that additional clarification on the basis of the revisions and the objectives of Table 3-2 were needed.

EGS 03-02 provides this additional clarification and includes the revised Table 3-2. OE decided not to establish a specific date for implementation of the revised Table. Instead, contractors were to transition to the new Table 3-2 on the same day they transition to the new Occurrence Reporting and Processing System reporting software. Table 3-1 of the Operational Procedure remains unchanged.

The full text of EGS 03-01 and EGS 03-02 are included in attachment B. Both of the above EGSs and those issued in prior years are available on the OE web site.

Cost Segregation

Under the Major Fraud Act of 1988 [41 USC 256(k)], contractors are not reimbursed for costs associated with any criminal, civil, or administrative proceeding commenced by the United States or a State if the proceeding relates to a violation of a Federal Regulation. For DOE, the Major Fraud Act is implemented in Federal Acquisition Regulation 48 CFR 31.205-47 and various Department of Energy Acquisition Regulations (DEAR). The DOE Office of General Counsel (GC) has determined that contractor costs associated with PAAA investigations and enforcement actions fall under the provisions of the Major Fraud Act limiting cost reimbursement, and as such contractors are required to segregate costs associated with such activities. Contractor costs in supporting the investigation by OE, including those costs associated with any subsequent

Enforcement Conference and Enforcement Action, are to be segregated as specified in contract provisions.

In 2003, OE established a process to more clearly and consistently define when a PAAA investigation is formally initiated and thus establishing when DOE contractors must begin segregating their costs associated with an investigation. OE clarified that initiation of an investigation takes place when the DOE contractor is formally notified of the OE intent to conduct an onsite investigation. The intent of OE to conduct an onsite investigation is communicated to the DOE contractor through formal correspondence. In this correspondence the DOE contractor is informed that costs incurred in connection with the investigation should be tracked and segregated from other potentially allowable costs. Jurisdiction to determine allowability of costs resides with the DOE Contracting Officer.

Program Reviews

In 1999, OE initiated a series of PAAA Program Reviews to evaluate the effectiveness of contractor programs for the identification and reporting of potential nuclear safety noncompliances. During 2003, OE continued with this initiative, issuing six PAAA Program Review letters documenting the results of completed reviews.

PAAA Program Reviews are conducted in accordance with published criteria² and include an evaluation of contractor processes for identifying, screening, reporting and trending noncompliances, and for the tracking and completion of corrective actions associated with those noncompliances. Review results are transmitted in Program Review letters to the involved contractor and DOE line management, and are also uploaded to the OE web site to provide a lessons-learned opportunity for other DOE contractors.

During the course of these reviews, OE evaluates particular events or problems that were not reported to DOE via the NTS. In some cases, OE has identified potential compliance problems, such as in processes for procurement

² EGS 00-02: Price-Anderson Amendments Act (PAAA) Program Reviews

control or quality problem resolution. In a limited number of cases, nuclear safety noncompliances found by OE have led to an enforcement action, although that is neither the focus nor intention of such reviews.

In 2003, OE conducted its first Program Review examining the screening and reporting of weapons-related nuclear safety deficiencies at the DOE Kansas City Plant. As part of this review, OE identified notable deficiencies in the contractor's threshold for determining nuclear safety noncompliances (see the OE web site for report details)

Program Reviews give OE better insight into contractor understanding of and initiatives in nuclear safety management and provides the DOE contractor community with enhanced insight into OE's program expectations. Additionally, contractor programs and management change over time. For these reasons, OE plans to continue the Program Review initiative in 2004 (see chapter 5 for planned initiatives).

OE completed the initial round of Program Reviews of all major DOE contractors during 2003. Overall a significant level of improvement has been observed over the past four years in which OE had conducted its reviews of contractor PAAA programs and includes the following:

1. Level of formality and sophistication of the programs.
2. Scope of issues reviewed for potential noncompliances.
3. Involvement/influence of the PAAA Coordinator with related programs such as corrective actions development and root cause analysis.
4. Integrated site wide issues management systems.
5. Trending of site wide issues.
6. Effectiveness assessments for NTS corrective actions.
7. PAAA annual/quarterly reports.
8. Internal and external assessments of the PAAA program.
9. PAAA training for procurement and inspection personnel.

Table Top Program Reviews

In 2003, OE recognized the need to review the PAAA programs of those contractors whose scope of DOE activities is not quite as extensive as many DOE prime contractors but are of such complexity to warrant review. OE acknowledged that a full-blown Program Review would not be resource efficient and thus sought a tailored approach to conducting these reviews.

The decision was made to conduct, on an experimental basis, "Table Top" Program Reviews of some of these "sub-tiered" contractors. In a "Table Top" Program Review a document request is made similar to that of a standard Program Review (see EGS 00-02 on the OE web site for details). However, a fewer number of documents may be requested. After review of requested documents a conference call may be set up with the contractor to answer any questions pertaining to the contractor's PAAA Program (note that a site visit is not necessary). A report is then written documenting results of the Program Review.

Two contractors were initially selected to pilot this "Table Top" approach to Program Reviews. The documents associated with these two contractors are currently under OE review.

Training

OE undertook several training activities in 2003 related to Price-Anderson requirements and the enforcement program, including the following:

1. A one-day intensive introductory session on Price-Anderson nuclear safety regulations, identification and reporting of noncompliances, fundamentals of the nuclear safety enforcement process, and expectations and responsibilities of Coordinators. This occurred in early December and was provided to both new DOE and contractor PAAA Coordinators.
2. A two-day training course for DOE PAAA Coordinators. The course provided information on enforcement techniques, program changes, compliance expectations, enforcement action case reviews, reporting issues, and communication and coordination between Department offices and sites.

3. Provided materials on the OE web site from both of the above modules, so that other Coordinators could conduct self-training and refresher reviews.

These training activities assist in assuring consistent high quality support by Coordinators, facilitate lessons learned across the complex related to individual adverse events and problems that resulted in enforcement actions, and support collective identification and development of initiatives to improve DOE's PAAA Program.

Awards

In 1996 the Department established the Price-Anderson Coordinator of the Year Award to recognize individual DOE PAAA Coordinators for leadership and contributions to the Enforcement Program. Awards have been made each year since then. In 2003, Brenda Hawks of the DOE-Oak Ridge Operations Office received this award (See Figure 4-2). The Director of OE presented the award to Brenda at the December 2003, two-day DOE PAAA Coordinators training session for her efforts in monitoring Oak Ridge site contractors to ensure that potential Price-Anderson issues are properly screened, reported, and corrective actions taken. In addition, Brenda actively participated in three OE investigations at the Oak Ridge site. This marked the second time that Brenda has received this coveted award.

Figure 4-1:
Stephen M. Sohinki and Brenda Hawks



Web Site

OE maintains an Internet Web site (<http://www.eh.doe.gov/enforce>) to provide information to Federal and contractor communities and to 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 recently published Annual Report, and workshop information are all available on the web site. OE routinely posts this information on the web site to enhance communication with contractors and the public on enforcement activity and information, and to promote lessons-learned across the DOE Complex. The OE web site was accessed over 68,000 times in 2003, demonstrating that the site is a critical communications link in the DOE nuclear safety program.

ENFORCEMENT ACTIVITY

Cases Considered and Closed Without Action

In 2003, OE reviewed a number of sources for potential noncompliance with nuclear safety requirements. This included 224 issues that contractors reported into the NTS, a 100 percent review of all occurrence reports, and issues that came to the attention of OE from other sources, such as DOE and contractor assessments, or Defense Nuclear Facilities Safety Board (DNFSB) staff reports. Additionally, OE closed a total of 208 NTS reports in 2003 without further action. This total included NTS reports that had been reported in prior years, but which remained open until all the corrective actions associated with the reports had been completed.

OE conducted reviews of the NTS reports and other sources of potential noncompliances and focused on the safety significance of the issues, as well as the degree to which the contractor demonstrated aggressive self-identification, reporting, and corrective action. The vast majority of issues were closed without an enforcement action because the contractor took proper actions to identify, report, and correct the problems and because of low safety significance of the issues. When OE is not satisfied that

appropriate actions had been taken in a safety significant matter, it conducts a more comprehensive review.

Table 4-1 lists the number of NTS reports filed by DOE contractors in 2003.

Enforcement Letters

In some cases, although OE may exercise discretion in not taking enforcement action such as issuance of an NOV, it may conclude that conditions were such that some notice to the contractor is important. Such situations may involve a precursor event, or weak actions by the contractor in identifying or resolving the nuclear safety problem. In such cases, OE may issue an Enforcement Letter to communicate concerns and provide clear guidance on areas the contractor needs to address. In 2003, OE issued four Enforcement Letters, copies of which are available on the OE web page. Summaries of two of these Enforcement Letters from 2003 are provided in chapter 3.

Table 4-1

CONTRACTOR	Number of 2003 NTS Reports
Ames Laboratory	1
Argonne National Laboratory – East	1
Argonne National Laboratory – West	1
Bechtel BWXT Idaho, LLC	14
Bechtel-Hanford, Inc.	5
Bechtel-Jacobs Company, LLC	11
Bechtel National River Protection Project	3
Bechtel-Nevada	5
Brookhaven National Laboratory	2
BNFL, Inc.	7
Babcock & Wilcox of Ohio, Inc.	3
BWXT Pantex	8
BWXT (Y12)	17
CH2M Hill Hanford Group, Inc.	14
Fluor-Daniel Hanford	35
Fluor Fernald, Inc.	5
Kaiser-Hill Company, LLC	8
Los Alamos National Laboratory	34
Lawrence Berkeley National Laboratory	2
Lawrence Livermore National Laboratory	5
Oak Ridge National Laboratory	13
Pacific Northwest National Laboratory	5
Princeton Plasma Physics Laboratory	1
Sandia National Laboratory	9
Westinghouse Electric Corp. – WIPP	2
Westinghouse Savannah River Company	12
West Valley Nuclear Services	1

Notices of Violation

In 2003 OE initiated formal enforcement action in ten cases in which the actual or potential safety significance was sufficient to warrant action. In these cases, the Department issued NOVs to clearly communicate DOE's expectations and to document significant violations of nuclear safety requirements. DOE transmitted the NOVs via letters that included a strong message about the Department's expectations for contractors to correct the behaviors and practices that led to the violations and for them to aggressively focus on promoting a culture that self-identifies and corrects problems before they result in serious conditions. The ten NOVs imposed monetary civil penalties totaling \$1,305,000, of which \$522,500 was waived due to the statutory exemption for not-for-profit contractors. Table 4-2 summarizes the enforcement actions issued in 2003.

Enforcement-Related Orders

The Office of Price-Anderson Enforcement has several other tools available to it to effect desired actions by contractors or resolution of a case. These include Special Report Orders, Consent Orders, and Compliance Orders. A Special Report Order is a vehicle to require that certain information be provided to DOE to demonstrate compliance with nuclear safety rules. Consent Orders are used as a means of resolving a case with a settlement with the contractor, in lieu of pursuing a resource-intensive investigation by DOE and enforcement action process. A Compliance Order may be issued by the Secretary of Energy to require that certain actions be taken to remedy a serious violation of nuclear safety requirements. Conditions for use of the Consent Order and Compliance Order are described in EGS 00-04 and EGS 03-01, available on the OE web site. During 2003, one enforcement related order (Consent Order) was issued (see chapter 3 for a discussion of this consent order or the OE web site for the actual order).

Table 4-2

EA No.	Contractor	Type	Severity Level	Date Issued	Civil Penalty Amount
EA-2003-01	BNFL	PNOV	II	2/4/03	\$123,750
EA-2003-02	LANL	PNOV	II & III	4/10/03	\$385,000
EA-2003-03	BWXT-Y12	PNOV	II	6/4/03	\$96,250
EA-2003-04	LLNL	PNOV	II	9/3/03	\$137,500
EA-2003-05	Fluor Fernald Inc.	CO		8/18/03	\$40,000
EA-2003-06	CH2M-Hill Hanford Group	PNOV	II	8/29/03	\$82,500
EA-2003-07	Washington Group Int.	PNOV	II	10/23/03	\$55,000
EA-2003-08	RTS Wright Industries	PNOV	II & III	10/23/03	\$41,250
EA-2003-09	Bechtel Jacobs Company	PNOV	II & III	11/10/03	\$192,500
EA-2003-10	UT- Battelle	PNOV	II & III	11/18/03	\$151,250

* Civil penalty waived due to statutory exemption.

** Monetary remedy in lieu of civil penalty

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5. CHANGES AND IMPROVEMENTS

Introduction

Experience gained through the implementation of the DOE's Enforcement Program during its initial eight years has led to some important lessons learned. This chapter discusses Enforcement Program improvements and initiatives planned for 2004 and beyond.

AREAS OF INCREASED FOCUS BY THE OFFICE OF PRICE-ANDERSON ENFORCEMENT

Investigation/Causal Analysis/Corrective Actions

During the course of its investigations into potential nuclear safety noncompliances, OE routinely evaluates the scope and depth of the contractor's investigation and causal analysis associated with an identified deficiency. As part of this evaluation, OE also assesses the adequacy of the contractor's corrective actions. An effective investigation and analysis of root causes by the contractor, coupled with the implementation of comprehensive corrective actions, can prevent recurrence of noncompliances, and can also serve as the basis for mitigation of potential civil penalties, or the application of enforcement discretion by OE.

As was the case last year, OE has identified deficiencies in contractor performance in the areas of root cause analysis, corrective action implementation/sustainability, and extent of condition review. Based on observations from multiple investigations and enforcement actions, OE has identified the following general weaknesses:

- Failure to evaluate the possible existence of site-wide deficiencies similar to those identified through the investigation of a facility specific issue (extent of condition review).
- Failure to address all discrepant conditions and/or underlying causes in the causal analysis. OE has noted multiple instances where causal analyses stop at apparent causes or easily identifiable failure conditions

(i.e., failure to follow procedures), rather than exploring the underlying issues.

- Failure to adequately address behavioral or "people" issues in the causal analysis and corrective action plan, instead over-emphasizing process, procedure, or engineering issues.
- Failure to develop and implement corrective actions addressing the underlying problems identified in the causal analysis.
- Failure to sustain implemented corrective actions over time.
- Failure to evaluate effectiveness of corrective actions.

OE will continue to highlight these concerns in communications with DOE and contractor management and during the OE sponsored PAAA Coordinator training.

Management and Independent Assessments

In 2001, an EGS was issued providing information on how OE would address various deficiencies in the areas of management and independent assessment. This EGS outlined the types of problems or deficiencies that would be viewed as potential violations, summarized how OE would evaluate a contractor's assessment function during an enforcement evaluation or investigation, and described OE's overall emphasis in this area.

During 2003, OE continued to focus on contractor assessment performance during the course of noncompliance investigations and through OE Director communications with contractor and DOE management. As an example, during 2003, OE undertook an enforcement action against a contractor for the unauthorized storage of numerous radioactive waste storage containers. These containers had been in place for several years and were not inventoried or analyzed as part the facility safety

basis. The unauthorized storage of these containers should have been a readily discoverable condition through a variety of mechanisms, including the contractor's management and/or independent assessment programs. However, the contractor's assessment functions failed to discover these problems for several years.

During discussions with DOE and contractor management in 2003, the OE Director has emphasized the importance of shifting from an "event-driven" to an "assessment-driven" culture for the identification and correction of nuclear safety deficiencies. Achieving excellence in performance assessment provides contractor management numerous positive benefits from a business perspective, including fewer stand-downs, project delays, lost workday cases, and investigations resulting in improved public confidence. Common deficiencies noted by OE with respect to contractor assessment programs include a scope of assessment that is too narrow, lack of objectivity, stovepiping, checklist mentality by auditors, and failure to conduct an extent of condition review for identified deficiencies.

During 2004, OE will continue to place emphasis on assessment issues during its investigations and reviews of potentially significant conditions.

Nuclear Safety Culture

The Institute of Nuclear Power Operations defines safety culture as "an organization's values and behaviors, modeled by its leaders and internalized by its members, that serve to make nuclear safety the overriding priority." This Definition is further supported by eight principles for a strong nuclear safety culture and is as follows:

1. Nuclear safety is everyone's responsibility.
2. Leaders demonstrate commitment to safety.
3. Trust permeates the organization.
4. Decision-making reflects safety first.
5. Nuclear is recognized as different.
6. A "what if" approach is cultivated.
7. Organizational learning is embraced.
8. Nuclear safety undergoes constant examination.

During 2003 OE noted a number of noncompliances that demonstrated personnel behavior contrary to these INPO principles for a strong nuclear safety culture.

A review of documentation and interviews with personnel suggest there are a number of factors that are influencing this poor nuclear safety mindset by some DOE personnel and include the following:

- Worker decision making during nuclear safety related job evolutions does not reflect an attitude that safety is of primary importance. There is often a perceived tension between doing work safely and doing the work within budget and on schedule. In some cases zeal to reach mission related milestones and Performance Based Incentives overrides the nuclear safety aspects of the job.
- DOE contractor senior management demonstrated commitment to excellence in nuclear safety performance is lacking in some cases. There seems to be a strong correlation between this lack of commitment and lapses in worker nuclear safety performance as exhibited by several of the enforcement actions taken in 2003. An underlying cause of this observation may be that some contractor senior management do not accept the premise that good nuclear safety performance is an investment rather than a cost and the return on this investment enhances the contractor bottom line.
- Technical inquisitiveness on the part of many DOE contractor employees appears lacking. Asking the "what if" questions when conducting work activities does not appear to be part of the workers mindset at times. Often nuclear safety is viewed as someone else's responsibility or that safety is not everyone's job.

During 2004, OE will place special emphasis on these and other nuclear safety culture issues during the conduct of its investigations and reviews of potentially significant conditions.

ENFORCEMENT PROGRAM ACTIVITIES

PAAA Program Reviews

Chapter 4 provides an overview of the process used by OE in conducting PAAA Program Reviews and the status of reviews conducted to date. In 2003, OE completed PAAA Program Reviews for all the larger DOE contractor organizations.

Although initially intended to be a one-time or baseline review process, OE has found that significant benefit would be derived from the routine and continuing performance of Program Reviews. Contractors and contractor programs may change significantly over time. Accordingly, OE has determined that it is appropriate to make Program Reviews a routine function of the office and will continue this effort in 2004. The performance of routine reviews will use a graded approach, initially focusing on those contractors whose initial Program Review was determined to be less than adequate.

Worker Safety Regulation and Enforcement

As stated in chapter 4 of this report, on December 8, 2003, DOE published a draft proposed rule 10 CFR 851, *Worker Safety and Health Rule*, for public notice and comment. When finalized, the Rule will initiate a new enforcement program encouraging improvements in worker safety and health programs relating to non-nuclear workplace hazards. Enforcement will begin one year after publication of the final rule.

During 2004, OE will be working with Department officials to establish the infrastructure necessary to implement an efficient worker safety enforcement program. A series of technical meetings and workshops are envisioned to facilitate implementation. Necessary work products will include: revisions to the Noncompliance Tracking System to accommodate new Occupational Safety and Health (OSH) specific data collection needs, guidance on establishing recommended reporting thresholds, and efficient procedures for OSH violation processing and documentation.

Enforcement Contribution to Improvements in Nuclear Safety Performance

As stated in chapter 4 of this report, OE initiated a project in 2003 to evaluate and document the impact and benefits that the PAAA Enforcement Program is making on nuclear safety. The office will continue working on this project during 2004, and will continue to assemble various site-specific and generic examples of safety benefits, and qualitative perspectives from DOE contractor and DOE Program Office and Field Office personnel in documenting the results of the evaluation. Further, efforts to (1) gather information by upgrading NTS, (2) establish a uniform process to solicit nuclear safety improvements, and (3) examine the potential use of performance metrics, will be undertaken in 2004.

NTS Revision

The current Noncompliance Tracking System is in need of a revision and an expansion of its capabilities. It was designed to accommodate a relatively small database of information, but without any capability for tracking and trending that information.

OE has now been assigned the responsibility for enforcement of the new worker safety and health regulations. The enforcement philosophy, as it is for nuclear safety requirements, is that contractors should have incentives for identifying, reporting and correcting their occupational safety and health noncompliances. Therefore, the NTS must be expanded to accommodate these noncompliance reports (reporting thresholds are yet to be determined). It is anticipated, based upon prior DOE experience, that the volume of such reports could easily be at least double the number of nuclear noncompliance reports. Accommodating this addition to the current database will require that significant revisions be made.

Furthermore, the existing database of NTS information for nuclear safety issues is growing large enough that useful trending information can be gleaned from the system if it is modified appropriately. The manual extraction of useful

data is becoming more and more difficult and time-consuming. In addition, the sheer volume of paper maintained by OE could be eliminated if the NTS had the capability to store this information electronically. In the course of the planned system revision, the NTS would also be made more user-friendly and efficient.

Therefore, OE has undertaken an internal review of its information management needs and surveyed the NTS community to determine what features should be incorporated in a revised NTS. Though no final decisions have been made, enhancements under consideration include a common draft and final report location for each contractor thereby making all of a contractor's reports available to its PAAA staff; a robust set of querying tools for searching the NTS database; automated e-mails for reminding contractor and DOE PAAA staff of various due dates, and better use of data dictionaries that can automate the input of routine information into draft and final reports.

OE anticipates starting work on an NTS revision during the latter part of 2004.

6. OE PERSONNEL CHANGES

Roy Gibbs

The year 2003 brought change to the Office of Price-Anderson Enforcement in that it marked the beginning of our efforts to establish enforcement requirements associated with 10 CFR 851 as described in chapter 4 of this report. To aid in the start-up of this effort OE sought to acquire a safety professional with extensive knowledge of worker safety and health requirements and the enforcement of these requirements. We were fortunate to find such a person in our own back yard (EH).

In July of 2003 Roy Gibbs was reassigned to the Office of Price-Anderson Enforcement to assist in readying the Department for enforcement of the new worker safety and health rule. Roy provides corporate program support relating to a variety of occupational safety and health issues across the DOE complex. For several years he served as the Acting Director, then Director for the Office of Occupational Safety in the Department of Energy's Office of Environment Safety and Health. The office establishes policy and guidance as well as providing technical assistance supporting advancement of the Department's Occupational Safety and Health Programs. His accomplishments at the Department of Energy range from the implementation of the Voluntary Protection Program to the publication of a new order affecting all construction activity.

Prior to this position Roy served as the Director of the Occupational Safety and Health Administration's (OSHA) Office of Science and Technology Assessment. During his 16 years at OSHA, he served as an Industrial Hygiene Supervisor and a field industrial hygienist performing hundreds of workplace evaluations. In addition, Roy performed numerous exposure assessments, accident and fatality investigations, and served as an industrial hygiene expert witness. Roy holds a B.S. in Environmental Health Sciences and a Masters degree in Occupational Safety and Health Management from New York University. Roy is married, has two adult children and resides in Germantown, Maryland.

Sharon Hurley

After nearly 26 years of federal service the Office of Price-Anderson Enforcement sadly announced the retirement of one of the office's most respected senior investigators, Mrs. Sharon Hurley. Sharon began her career in law enforcement with the General Services Administration at Los Angeles, CA. In 1980, she transferred to the Department of Labor, Office of Inspector General, where she worked as a Special Agent at the Dallas Regional Office. While in Dallas, Sharon earned a Bachelor of Science degree from the University of Texas. During her stint in Dallas, Sharon vigorously pursued violators of labor laws and programs and her work in conducting white collar crime investigations led to significant savings for the Labor Department. In November 1987, she was reassigned to the Labor Department's Headquarters' Office in Washington, DC, where she prepared a Special Agent Handbook to provide investigators with an authoritative source for information on legal requirements and office policy. In February 1992, Sharon transferred to the recently formed Office of Price-Anderson Enforcement. Here she had significant input in developing the Noncompliance Tracking System, internal investigative procedures and guidance documents and in sheparding the Office's Annual Report. She also played a significant role in increasing awareness throughout the DOE complex of procurement and other supply chain vulnerabilities. At a recent retirement luncheon, Sharon told us that while she appreciates the time to enjoy ballroom dance and her fish pond, two of her favorite hobbies, she misses the office camaraderie. All of us at the Office of Price-Anderson Enforcement thank Sharon for her dedicated service and wish her and her husband Kenneth the best years yet.

ACRONYMS

ALARA	as low as is reasonably achievable
BNFL	British Nuclear Fuels Limited
CFR	Code of Federal Regulations
DEAR	Department of Energy Acquisition Regulations
DNFSB	Defense Nuclear Facility Safety Board
DOE	Department of Energy
DRC	Dose Reconstruction Committee
EGS	Enforcement Guidance Supplement
EH	Office of Environment, Safety and Health
ES&H	Environment, Safety and Health
GC	Office of the General Counsel
HFIR	High Flux Isotope Reactor
H.R.	House of Representatives
LANL	Los Alamos National Laboratory
LLC	Limited Liability Company
LLNL	Lawrence Livermore National Laboratory
MWP	Maintenance Work Package
NNSA	National Nuclear Security Administration
NOV	Notice of Violation
NTS	Noncompliance Tracking System
OE	Office of Price-Anderson Enforcement
ORNL	Oak Ridge National Laboratory
ORPS	Occurrence Reporting & Processing System
OSH	Occupational Safety and Health
OSHA	Occupational Safety and Health Administration
PAAA	Price-Anderson Amendments Act
REDC	Radiochemical Engineering and Development Center
TA	Technical Area
TLD	Thermoluminescent Dosimeter
TSR	Technical Safety Requirement
USC	United States Code
UT	University of Tennessee
WIPP	Waste Isolation Pilot Plant

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APPENDIX A: ENFORCEMENT PROCESS

Introduction

The philosophy of the Department of Energy (DOE) Price-Anderson Amendments Act (PAAA) Enforcement Program is to utilize the civil penalty authority provided by Congress as a tool to promote proactive behavior by DOE contractors towards improvements in nuclear safety performance. Therefore, DOE provides substantial incentives to contractors for their self-identification, reporting, and timely identification and implementation of comprehensive actions to correct nuclear safety noncompliances, as part of their efforts to enhance the nuclear safety culture associated with their activities.

This section provides an overview of the DOE PAAA 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 logging onto 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. The effective period of the PAAA was extended until December 31, 2004, by amendment enacted in December 2002.

DOE's procedural rules for its Enforcement Program are published in 10 CFR Part 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

Notices of Violation (NOV) 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, two substantive rules have been released as final rules-10 CFR 830 (which includes subpart A, *Quality Assurance Requirements*, and subpart B, *Safety Basis Requirements*) and 10 CFR 835, *Occupational Radiation Protection*. Additionally, DOE Rules on Contractor Employee Protection and Accuracy of Information have been identified as nuclear safety requirements that are also enforceable.²

DOE's first enforcement action was issued in April 1996.³ Since then, DOE has routinely applied its Enforcement Program by issuing Program Review Letters, Enforcement Letters, Consent Orders, and Notices of Violation, and where appropriate, by imposing civil penalties. The Secretary of Energy is also authorized to issue Compliance Orders to particular contractors if the need to resolve a safety issue is immediate and apparent.

Administration

The Department's Enforcement Program is administered by a relatively small staff at DOE Headquarters in the Office of Price-Anderson Enforcement (OE), 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 requirements across the DOE complex are consistently applied.

¹ 42 U.S.C. 228.

² 10 CFR 708 AND 10 CFR 820.11, respectively.

³ EA 96-01, *Pacific Northwest National Laboratory*.

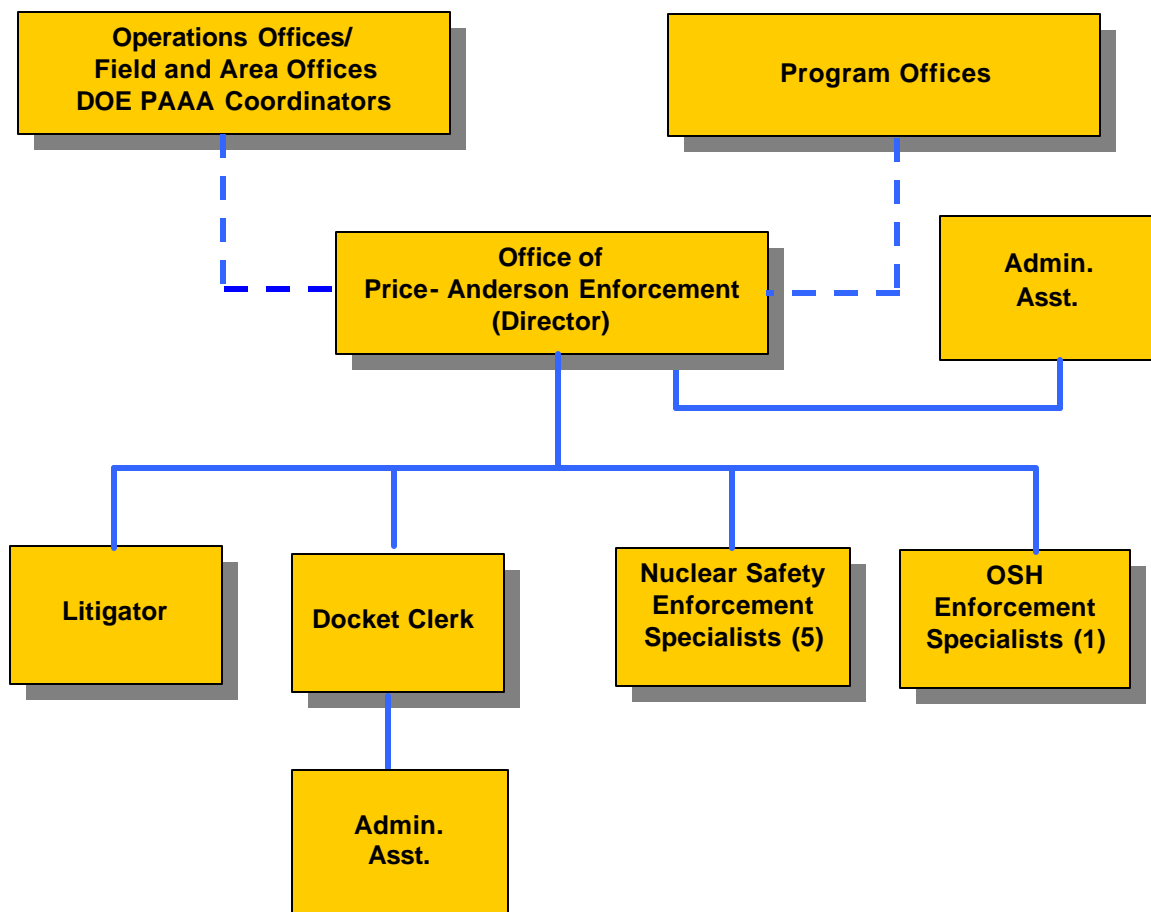
The OE team includes the Director, seven enforcement staff (including a Litigator), a Docket Clerk, two Administrative Assistants; two consultant technical experts; and over 50 Field

and Program Office Coordinators, assisted by numerous other DOE technical specialists. Figure A-1 illustrates the DOE enforcement organization network.

Figure A-1

Office of Price-Anderson Enforcement Organizational Structure

(Note: Dotted lines show matrix support integration)



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, and 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 or by OE personnel during PAAA program reviews. DOE expects that noncompliances meeting the reporting thresholds set forth in its guidance documents⁴ will be reported into the Department's Noncompliance Tracking System (NTS). Most cases are tracked to closure 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, the Defense Nuclear Facility Safety Board (DNFSB) activities, DOE PAAA Coordinators, DOE's Office of Independent Oversight and Performance Assurance, 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. After gathering necessary information from field program offices, OE determines which noncompliances have the requisite level of safety significance to warrant an investigation.

An investigation usually involves review of documentation from the contractor, assistance from DOE Field Office personnel, and in most cases, onsite visits to gather facts about the

⁴ DOE's reporting thresholds are contained in *Operational Procedures, Identifying, Reporting and Tracking Nuclear Safety Noncompliances under Price-Anderson Amendments Act of 1988*. Additional guidance may be found in *Enforcement Guidance Supplements issued by OE*.

noncompliance, conduct interviews, and understand contractor actions in response to the noncompliance.⁵ 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 safety culture and to demonstrate the desired proactive behavior towards identification and resolution of nuclear safety issues.

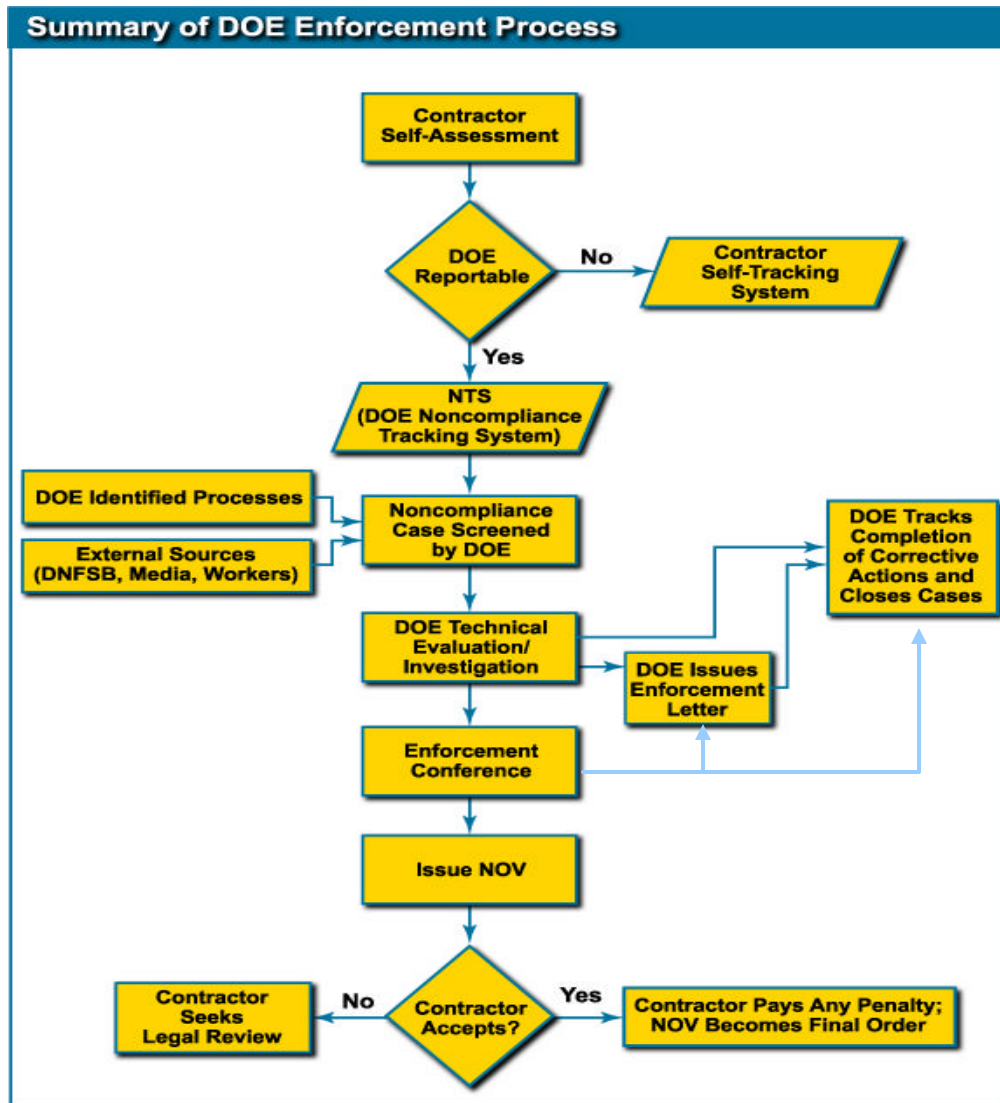
OE staff solicit input from DOE Field and Program Office management in making decisions about what enforcement actions are appropriate based on the findings of the investigation. If appropriate, an Enforcement Conference is held with senior contractor management, along with DOE Field and Program Office 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 violations as either Severity Level I (most significant, with actual or potential significant

⁵ Pursuant to 10 CFR part 820, the Director, OE, 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.

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.⁶ Figure A-2 summarizes the enforcement process

Figure A-2



⁶ *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
- Notice of Violation with no civil penalty
- Notice of Violation with a civil penalty
- 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 Preliminary NOV, 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 or that contractor actions in addressing the issues involved have been effective in identifying, reporting and correcting the problem, prompting DOE to determine that formal enforcement action is not appropriate at that time. 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, the Department, under appropriate facts and circumstances, will 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.⁷ Severity Level I violations are set at

⁷ On October 2, 1997, Part 820 was amended to increase the maximum civil penalty from \$100,000 to \$110,000 per violation. This

100 percent of the statutory limit per violation per day (i.e., \$110,000). Severity Level II violations are set at 50 percent of the statutory limit (i.e., \$55,000) per violation per day, and Severity Level III violations are set at ten percent of the statutory limit (i.e., \$11,000) per violation per day.⁸

The PAAA statute provides an exemption from civil penalties for certain not-for-profit contractor entities, and 10 CFR Part 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. The contractor can admit 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.

Another vehicle authorized by the nuclear safety procedural rules (10 CFR 820.23) is the Consent Order. A Consent Order is an agreement signed by DOE that stipulates the (1) conclusions of fact and/or law, (2) monetary remedy to be paid by the contractor, and (3) corrective actions to be taken by the contractor. DOE may elect to

increase was accomplished in accordance with the Debt Collection Improvement Act of 1996.

⁸ 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 in which 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.

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 proactively 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, avoids the segregation of costs mandated by the Major Fraud Act, and has the potential for lower penalties than would have been experienced following 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 nuclear safety requirements and thus, are independently enforceable under 10 CFR 820. Failure to perform the actions specified could lead to issuance of a separate NOV with civil penalties. Compliance Orders are used sparingly (only one has ever been issued), 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.

- 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 accord 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 system. Field Office personnel verify completion of all corrective actions before a case is closed.

The Docket Clerk maintains all records related to enforcement cases at DOE Headquarters.

DOE's approach to enforcement involves some relatively innovative methods to avoid human resource-intensive inspection forces 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.

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 Part 820, *Procedural Rules for DOE Nuclear Activities (subpart B)*, and its Appendix A, *General Statement of Enforcement Policy*.

APPENDIX B: ENFORCEMENT GUIDANCE SUPPLEMENTS

Enforcement Guidance Supplement EGS-03-01
Appendix E-Operational Procedures for Enforcement



Department of Energy
Washington, DC 20585

July 21, 2003

MEMORANDUM FOR: DOE PAAA COORDINATORS
CONTRACTOR PAAA COORDINATORS

FROM: STEPHEN M. SOHINKI *sm*
DIRECTOR
OFFICE OF PRICE-ANDERSON ENFORCEMENT

SUBJECT: Enforcement Guidance Supplement 03-01
Supplemental Guidance Concerning the Factual Bases for
Issuing Consent Orders Pursuant to 10 CFR 820.23

In October 2000, the Office of Price-Anderson Enforcement (OE) issued Enforcement Guidance Supplement (EGS) 00-04, "Factual Bases for Issuing Consent Orders Pursuant to 10 CFR 820.23 and Compliance Orders Pursuant to 10 CFR subpart C." That EGS, in part, delineated a set of criteria that OE would use to determine whether to apply its enforcement discretion, in this case through the use of Consent Orders. Those criteria provided both guidance to DOE contractors regarding situations for which the use of Consent Orders are appropriate, and a tool to assure consistency in the OE evaluation of requests for resolution of potential violations by Consent Order.

A pivotal aspect of EGS 00-04 is that the willingness of DOE to enter into a Consent Order represents, among other things, a conclusion that confidence, built over time, is warranted in a contractor's ability and commitment to anticipate precursor problems, comprehensively investigate significant issues and adverse events, and properly resolve these nuclear safety issues. Since the issuance of EGS 00-04, it has become increasingly apparent that additional guidance is needed to further define what is meant when OE draws the conclusion that it has **confidence** in a contractor's ability to anticipate and proactively resolve nuclear safety issues and that this conclusion is "**built over time.**"

OE recognizes that even a contractor with a history of strong, proactive nuclear safety performance may have an occasional event or other noncompliance issue that would justify consideration of potential enforcement action. In such cases, this history of strong performance, coupled with an aggressive investigation of the subject issues and comprehensive corrective actions, forms the basis for the use of a Consent Order. In this regard, a contractor's performance history over an extended period, i.e., about two years in most cases, must demonstrate a consistent proactive approach to the anticipation, comprehensive investigation and resolution of nuclear safety issues or be reflective of a consistent improving trend in performance.

A contractor organization that cannot demonstrate such consistent proactive behavior should not expect favorable action on a request for a Consent Order solely on the basis of recent aggressive action to deal with nuclear safety issues. Such recent proactive behavior may justify partial mitigation of a civil penalty but would not justify the use of a Consent Order. In this regard, 10 CFR 820 Appendix A, section IX, describes the means by which OE can provide a DOE contractor with enforcement discretion for initiative in promptly identifying, reporting, and correcting nuclear safety related problems. It is in this context that OE can recognize more recent contractor initiatives such as problem identification and reporting, investigatory efforts (including root cause analysis), and corrective action identification and implementation. It is important that the DOE contractor community understand this clear distinction between circumstances that warrant mitigation of an enforcement action and those circumstances that merit the use of a Consent Order.

Thus, this Office cannot support requests for Consent Orders based solely on the contractor response, however, aggressive, to recent safety noncompliance situations. Recent changes in contractor senior management and a resultant improvement in nuclear safety performance over the last few months are likewise not sufficient.

In making the final determination whether a contractor has demonstrated a history of strong nuclear safety performance, OE will obviously first consider its own enforcement experience with that contractor. However, OE will carefully consider the views of DOE-National Nuclear Security Administration line management personnel who have responsibility for safe operations of the various facilities around the complex. In addition, OE will solicit input from colleagues in the Office of Environment, Safety and Health who have conducted oversight reviews at the sites and facilities of interest. Finally, OE will review the results of relevant assessments performed by the DOE Office of Independent Oversight and Performance Assurance and others for any information that may inform OE's decision regarding a Consent Order.

The use of a settlement agreement in the form of a Consent Order is mutually beneficial to both DOE and the contractor. Further, OE encourages the application of this approach whenever appropriate. However, it is incumbent upon OE to apply this tool in a consistent manner and to assure that, when it is applied, it is in the best interest of DOE to do so.

cc: B. Cook, EH-1
A. Kindrick, EH-1
EH-6 Staff




Department of Energy

Washington, DC 20585

September 5, 2003

MEMORANDUM FOR: DOE PAAA COORDINATORS
CONTRACTOR PAAA COORDINATORS

FROM: STEPHEN M. SOHINKI 
DIRECTOR
OFFICE OF PRICE-ANDERSON ENFORCEMENT

SUBJECT: Enforcement Guidance Supplement 03-02:
Revision to Occurrence Report-Based Noncompliance Tracking
System Reporting Criteria

Section 1.3 of the *Operational Procedures for Enforcement*, published in June 1998, provides the opportunity for the Office of Price-Anderson Enforcement (OE) to periodically issue clarifying guidance regarding the processes used in its enforcement activities. OE typically issues such guidance in the form of Enforcement Guidance Supplements (EGS), which provide information or recommendations only and impose no requirements or actions on Department of Energy (DOE) contractors.

This EGS provides revised reporting criteria for use by contractors in submitting voluntary noncompliance reports to the DOE Noncompliance Tracking System (NTS). Revisions to current NTS reporting criteria were prompted by recent significant revisions to the DOE Occurrence Reporting and Processing System (ORPS).

Background

The DOE Nuclear Safety Enforcement Policy (10 CFR 820 Appendix A) provides incentives for DOE contractors to identify and report nuclear safety noncompliances. The NTS, established at the onset of the Enforcement Program, serves as the formal system for reporting of significant nuclear safety noncompliances. Non-NTS reportable noncompliances are "reported" into contractor internal tracking systems for resolution.

To assist contractors in determining which noncompliances should be reported into the NTS, OE established formal reporting criteria that are contained in the OE *Operational Procedures*¹. Table 3-1 of the *Operational Procedures* addresses reporting of programmatic, repetitive, and willful noncompliances. Table 3-2 of the *Operational Procedures* establishes criteria based on ORPS occurrence categories relating to nuclear safety for NTS reporting of event-related noncompliances.

¹ *Operational Procedures – Identifying, Reporting, and Tracking Nuclear Safety Noncompliances under Price-Anderson Amendments Act of 1988; June 1998.*

On August 19, 2003, DOE approved DOE Order 231.1A and DOE Manual 231.1-2, which provided significantly revised reporting criteria for use by contractors in submitting event reports to the ORPS. Transition to the new reporting software is to take place over an approximate 90 day period, with all sites using the revised criteria by November 30, 2003. In anticipation of the ORPS revisions, on August 5, 2003 OE issued for comment a draft revision to Table 3-2, which incorporated the planned revisions to the ORPS criteria. The attachment to this EGS contains the final revision to Table 3-2.

Basis/Clarifications

OE's review of the received comments and ongoing communications with contractor and DOE personnel within the PAAA community identified a need for additional clarification on the basis of the revisions and the objectives of Table 3-2. The following observations are provided:

- As emphasized in our August 5, 2003 transmittal for comment, the simple occurrence of an event in any of the listed categories is not enough to warrant NTS reporting. It is the identification of a nuclear safety noncompliance in association with the subject event that forms the basis for voluntary NTS reporting.
- Commenters noted that many of the ORPS criteria referenced in the table have been written to address both nuclear and non-nuclear impacts (i.e., "release of a hazardous substance, material, waste, or radionuclide..."). In light of the prior observation, OE is clearly interested only in those portions of the criteria with direct nuclear-safety implications, or in those in which programmatic noncompliances may ultimately affect nuclear safety.
- In developing the revised Table 3-2, OE strove for consistency with the overall level of reporting (and consequently the event types) used under the prior ORPS system. Comments were received suggesting additional event scenarios be added to the table; examples included events 2.B (2), 3.C (2), 4.B (3), 6.B (2), etc.

For the present, and in order to meet the real-time need of the PAAA community, OE continues to adopt the consistency approach and the revised Table 3-2 has not been supplemented with additional events or categories (other than those specifically addressed below). OE will continue to monitor NTS reporting levels and trends, however, and will continue to consider future arguments for additional inclusions to the table.

- Comments were also received suggesting that PAAA noncompliances could be occurring in other ORPS categories not listed in the table (i.e., Subgroup C - Hazardous Energy Control; Group 10 - Management Concerns/Issues).

Since the inception of NTS reporting and associated guidance, OE has considered the event criteria contained in Table 3-2 to be a guideline in defining or bracketing

what could be considered as "significant nuclear safety events;" these event criteria were not considered as all inclusive. The addition of fairly general ORPS Groups or Subgroups to Table 3-2 would be difficult and would require extensive supporting explanation. However, it should be emphasized that contractors identifying a significant nuclear safety noncompliance in association with an event type or category not listed on the table should evaluate the event for NTS reportability.

- The August 5, 2003 draft revision of Table 3-2 included a reporting criteria for "Recurring" ORPS reports. This inclusion prompted several comments concerning the use of Table 3-1, which includes criteria for reporting of repetitive events. To eliminate confusion, OE has chosen to delete the "Recurring" criteria from Table 3-2. Contractors should carefully evaluate any identified "Recurring" ORPS reports falling within the subject event categories, however, for potential reportability under the Table 3-1 repetitive noncompliance criteria.
- In response to comments, several changes were made to make the table more "user friendly." Significance categories for the specific events were deleted, as they provided no additional information for the purpose of NTS reporting. Short summary descriptions of the event type were also added to make the table more stand-alone; however users should refer to the entire event criteria in the ORPS Manual 231.1-2 when evaluating an event.
- The prior Table 3-2 did not explicitly flag reporting at the "Emergency" level of event; although it appeared generally well understood that reporting thresholds were established for "Unusual" or higher categories. For clarity, ORPS Group 1 - "Operational Emergencies" has been added to the revised Table 3-2. Contractors identifying a nuclear safety noncompliance in conjunction with any of the operational emergency categories should report it to the NTS.
- Commenters indicated our Notes 2 and 3 related to Group 3 Subgroup A were confusing and/or unnecessary considering the exceptions already identified in Manual 231.1-2. They have been deleted from the final table.

Additional guidance on identification and reporting of noncompliances is contained in the previously cited OE *Operational Procedures*.

Implementation

In recognition of the phased transition period associated with implementation of the new ORPS software, OE has chosen not to establish a specific date for implementation of the revised Table 3-2. Instead, contractors should transition to the new Table 3-2 on the same day they transition to the new ORPS reporting software. Table 3-1 of the *Operational Procedures* remains unchanged and should continue to be consulted as a guide for reporting programmatic, repetitive and willful nuclear safety noncompliances.

Questions regarding this EGS can be directed to me or to Tony Weadock of my staff at (301) 903-4283. As applicable, Enforcement Guidance Supplements will be incorporated in later revisions of the DOE Enforcement Handbook and will be made available on the OE web page (<http://tis.eh.doe.gov/enforce/>).

EGS 03-02 ATTACHMENT

Table 3-2: Noncompliances Associated with DOE Manual 231.1-2 Occurrences

REPORTING CRITERIA GROUP	SUBGROUP	OCCURRENCE CATEGORY AND SUMMARY DESCRIPTION ¹
1. Operational Emergencies ²	N/A	(1) Operational Emergency (2) Alert (3) Site Area Emergency (4) General Emergency
2. Personnel Safety and Health	B. Fires/Explosions	(1) Unplanned fire/explosion
3. Nuclear Safety Basis	A. TSR Violations	(1) Violation of TSR/OSR Safety Limit (2) Violation of other TSR/OSR reqmt (3) Violation of DSA hazard control
	B. DSA Inadequacies	(1) Positive USQ
	C. Nuclear Criticality Safety	(1) Loss of all valid criticality controls
4. Facility Status	A. Safety Structure/System/Component Degradation	(1) SSC performance degradation ³
	B. Operations	(2) Actuation of Safety Class SSC (4) Facility evacuation
5. Environmental	A. Releases	(1) Radionuclide release
6. Contamination/Radiation Control	A. Loss of Control of Radioactive Materials (RAM)	(1) Offsite RAM exceeding DOE limits (2) Loss of RAM (>100X 835 App. E)
	B. Spread of Radioactive Contamination	(1) Offsite radioactive contamination ⁴
	C. Radiation Exposure	(1) Exceedance of DOE dose limits (2) Unmonitored exposure (3) Single exposure > thresholds
	D. Personnel Contamination	(1) Offsite medical assistance (2) Offsite personnel/clothing contamination (3) Onsite personnel/clothing contamination ⁵
7. Nuclear Explosive Safety	N/A	(1) Damaged nuclear explosive (2) Introduction of electrical energy (3) Safety feature compromise (4) Inadvertent substitution (5) Violation of a safety rule (6) Damage to a training unit

Notes

1. These summary descriptions are a brief characterization of the related criteria. Use the full statement of the criteria contained in Manual 231.1-2 to establish NTS reportability of event-related nuclear safety noncompliances.
2. Report nuclear safety noncompliances associated with any of the M 231.1-2 Operational Emergency categories (Operational Emergency, Alert, Site Area Emergency, General Emergency).
3. Report noncompliances associated with a degradation of Safety Class Structure, System or Components preventing satisfactory performance of their design function when required to be operable or in operation.
4. Report noncompliances associated with offsite spread of contamination events where contamination levels exceed 100 times the applicable values identified in 10 CFR 835, App. D.
5. Report noncompliances associated with personnel/personal clothing contaminations where contamination levels exceed 100 times the applicable total contamination values identified in 10 CFR 835, App. D.