



Department of Energy
Washington, DC 20585

March 5, 2007

Mr. Robert Iotti
President and Chief Executive Officer
CH2M-WG Idaho, L.L.C.
Mail Stop 4143
P.O. Box 1625
Idaho Falls, Idaho 83415

Subject: Price-Anderson Amendments Act Program Review

Dear Mr. Iotti:

The Office of Enforcement recently conducted a review of the Price-Anderson Amendments Act (PAAA) program in use by CH2M-WG Idaho (CWI). Our review included an evaluation of processes to screen deficiencies for applicability under the PAAA, reporting and tracking in the Noncompliance Tracking System (NTS) and internal tracking systems, and correcting noncompliances in a timely manner.

Overall, we found a program that displayed many positive attributes. Examples of observed program strengths are as follows:

- Those individuals who are participating in the PAAA program and were interviewed were found to be skilled, experienced, and well-motivated.
- The PAAA coordinator has sufficient time to assess noncompliance-related issues.
- A large number of issues are screened from a variety of sources.
- Within approximately the first 18 months of its contract, CWI has submitted 15 NTS reports, most of which described noncompliances found through assessments.
- The corrective action process was found to be comprehensive and robust.
- Effectiveness reviews are performed on all NTS-reported issues.
- The Quality Assurance organization reviews all closure packages.
- CWI is performing a substantial number of effective management assessments across most projects and functional areas.

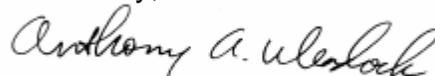
- Project Evaluation Board assessments are structured to provide rigorous reviews of ongoing activities.

Several weaknesses were identified, including the following:

- The PAAA procedure and forms need to be updated and corrected with respect to noncompliance identification.
- There needs to be the consideration of minimum qualifications for individuals who perform compliance officer and compliance coordinator duties.
- A number of screenings for PAAA applicability had insufficient documentation or vague statements supporting the determination.
- The reviewed PAAA screenings included multiple examples of incorrect determination of Rule applicability as the screening form allows for too much interpretation.
- The Radiological Control organization had no effective mechanism for identifying trends or recurrences. Only non-routine, *ad hoc* data reviews were performed.
- Radiological control assessments were not rigorous in that they were not identifying substantive issues.
- The Project Evaluation Board process is not governed by a requirements document.
- A CWI assessment of the Nuclear Materials Disposition Project management assessment program identified deficiencies in assessment completion and effectiveness.

Details of the Office of Enforcement's review are provided in the enclosure. No reply to this letter is required. Please contact me at (301) 903-0100, or have your staff contact Mr. Steven Zobel at (301) 903-2615, if you have any questions regarding this review.

Sincerely,



Anthony A. Weadock
Acting Director
Office of Enforcement
Office of Health, Safety and Security

Enclosure: PAAA Program Review

cc: L. Fife, CWI PAAA Coordinator

ENCLOSURE

CH2M-WG IDAHO PRICE-ANDERSON AMENDMENTS ACT PROGRAM REVIEW

I. Introduction

During September 12-13, 2006, the Office of Enforcement performed an onsite review of the Price-Anderson Amendments Act (PAAA) program in use by CH2M-WG Idaho (CWI) at the Idaho National Laboratory. This was the first program review for this contractor since it began work for the Department of Energy (DOE) in June 2005. The Office of Enforcement also conducted a limited review of CWI's management and independent assessment programs. Overall, CWI's program was viewed as effective, with necessary program elements in place and a number of notable program strengths. The review did, however, identify several areas for improvement which should be addressed to ensure appropriate mitigation consideration associated with possible future enforcement actions as well as continued Office of Enforcement exercise of discretion for noncompliances of lesser significance. The program review's results are summarized below.

II. General Implementation

CWI has implemented a decentralized PAAA program where the PAAA coordinator receives noncompliance information from approximately 41 compliance officers and coordinators who are located in various facilities and projects. All 41 individuals had taken the basic PAAA training conducted by the coordinator. The coordinator's position is within the Program Support group of the Environment, Safety, Health and Quality (ESH&Q) organization. Though the placement of this position within CWI's organization is somewhat removed from the Chief Executive Officer, discussions confirmed that the coordinator does have direct access to all senior managers to discuss nuclear safety noncompliance issues.

The program is implemented through Management Control Procedure (MCP) 2547, *Identification, Reporting, and Resolution of Price-Anderson Noncompliances*, revision 11, dated November 14, 2005. This procedure provides direction to all individuals involved in noncompliance screening of identified deficiencies, the development of Noncompliance Tracking System (NTS) reports, corrective action plans, report closure validation, and coordination of all related activities. MCP-2547 requires the use of Form 410.7 for screening nuclear safety deficiencies and its instructions are provided in Form 410.7A.

Strengths:

- Those individuals who are participating in the PAAA program and were interviewed were found to be skilled, experienced, and well-motivated.
- The PAAA Coordinator has sufficient time to assess noncompliance-related issues.
- The program has been compared to the operation and performance of other PAAA programs, has undergone a recent corporate-level assessment which had identified several weaknesses, and an improvement program to resolve the deficiencies has been initiated.

Weaknesses:

- The PAAA procedure and forms need to be updated to be consistent with current NTS reporting thresholds as provided in Enforcement Guidance Supplement 03-02, *Revision to Occurrence Report-Based Noncompliance Tracking System Reporting Criteria*, and for the correction of inaccuracies with respect to noncompliance identification.
- There needs to be the consideration of minimum technical background qualifications for individuals who perform compliance officer and compliance coordinator duties. This will help to make noncompliance identification and reporting determinations more consistent within CWI's various activities.

III. Identification and Screening

As noted in the above section, CWI has employed a decentralized program where the compliance coordinators and officers who perform the initial deficiency screenings are employees of the various projects and facilities. Thus, each of these individuals has other, primary duties and responsibilities and performs the PAAA function as an ancillary function. Each compliance coordinator is responsible for reviewing the company's Issue Communication and Resolution Environment (ICARE) system for related deficiencies (potential issue reports) and screening them in accordance with Form 410.7; compliance officers review and approve these screenings.

Strengths:

A large number of issues are screened from a broad variety of sources and the majority of determinations and reportings are well within current guidelines.

Weaknesses:

- The screenings that were reviewed by Office of Enforcement staff had numerous examples of incorrect determination of Rule applicability as the screening form

allowed for too much interpretation and thus resulted in multiple nuclear safety deficiencies not being identified as PAAA-related.

- Of those ICARE deficiency reports that were reviewed by Office of Enforcement staff, several did not have supportive documentation, such as the screening forms that were used.
- A number of screenings for PAAA applicability had insufficient documentation or vague statements supporting the determination.

IV. Evaluation of NTS Reportability

Noncompliance determinations are first performed by the compliance coordinators during their periodic reviews of deficiency reports within ICARE. Those deficiencies identified as noncompliances are then reviewed by the compliance officers for NTS reportability. Compliance officers are also responsible for trending deficiencies and performing a PAAA screen as necessary. If a noncompliance is reportable, the compliance officer then drafts the NTS report and submits it to the PAAA coordinator for review. A nonreportable noncompliance remains within the ICARE system for resolution. The draft report is distributed for review and comment, and finally to the CWI president who has final approval authority for NTS submission. MCP-2547 controls this process.

Strengths:

Within approximately the first 18 months of its contract, CWI has submitted 15 NTS reports, most of which described noncompliances found through assessments. All of these reports were submitted to the NTS within a timeframe consistent with Office of Enforcement guidelines.

V. Corrective Action Management

The corrective action process is controlled by MCP-598. A corrective action plan is developed by the ICARE Responsible Manager, an employee who has been assigned responsibility for resolving the noncompliance and who also performs an extent of condition review as well as conducting any causal analysis, if required. The ICARE Responsible Manager obtains approval of the corrective action plan, oversees completion of the corrective actions, and verifies their completion. Upon completion, the corrective actions undergo verification and an effectiveness review by the Quality Assurance organization; MCP-598 requires this to be performed within 12 months of completion of all corrective actions.

Strengths:

- The corrective action process was found to be timely and comprehensive.

- CWI has consolidated its issue data bases into the ICARE system which therefore allows efficient issues searches and trending to be performed.
- Clear guidance is given on when a causal analysis is required.
- Corrective action packages submitted to the DOE Idaho Operations Office for review and approval have received no negative feedback.
- Effectiveness reviews are performed on all NTS-reported issues.
- The Quality Assurance organization reviews all closure packages.
- The Quality Assurance organization conducts trending analyses and develops performance metrics for ESH&Q.

Weaknesses:

The Radiological Control organization was not found to have a sufficient mechanism for identifying deficiency trends or recurrences. Only non-routine, *ad hoc* data reviews were performed.

VI. Assessment Program

As part of this program review, the Office of Enforcement evaluated implementation of the CWI management and independent assessment programs, since the Office of Enforcement believes that an effective assessment program is the most proactive method to identify and address nuclear safety problems before they result in serious nuclear safety incidents. It should be noted that the Office of Enforcement's review in this area was limited in scope, and does not constitute a comprehensive evaluation of the CWI assessment program.

A. Management Assessment

CWI's management assessment program is managed by the Performance Assurance Group. Performance Assurance works with project and functional support area designated points of contact for scheduling, assistance, and mentoring for the assessment program. As part of this role, Performance Assurance reviews assessment reports, and provides feedback to those who conducted the assessment to improve the assessment process. Performance Assurance also prepares an integrated schedule of planned CWI management assessments.

Procedure MCP-8 "Performing Management Assessments and Management Reviews" governs the process for conducting management assessments. Management Assessments are performed under the direction of line managers or functional area managers. Managers assign a lead assessor, and designate a management individual to participate in the assessments. CWI has scheduled 108

management assessments across all projects and functional areas. Issues from assessments are entered into the corrective action system, and tracked and managed to resolution through the ICARE system.

Office of Enforcement staff also reviewed several of the assessments being conducted by the ICP Radiological Control organization, which collectively are intended to satisfy the 10 CFR 835 requirements to assess all elements of the Radiological Control Program every three years.

Strengths:

- The work by the Performance Assurance Group appears to be adding value to improve consistency and quality in the management assessment area. These efforts include development of an integrated schedule and mentoring those performing assessments.
- CWI is performing a substantial number of management assessments across all projects and functional areas.

Weaknesses:

- Despite the encouraging structure of the management assessment area, and the efforts of the Performance Assurance Group in this area, an April 2006 Project Evaluation Board assessment of the Nuclear Materials Disposition (NMD) Project found substantial deficiencies in that project's management assessment program. These included: not all required assessments were being conducted, assessments were not being formally documented, tracking and trending of results were not occurring, assessments were ineffective in identifying systemic or significant problems, assessments were focusing on administrative issues and not actual process performance, and assessments were not being performed by managers as required by 10 CFR 830.122. It is not clear whether the extent of these problems extended to other projects or functional areas.
- Office of Enforcement staff found that radiological control assessments going back about two years were not rigorous in that they were not identifying substantive issues. Additionally, those issues that were identified were most typically classified as concerns, including ones that clearly represented noncompliance conditions and thus should have been classified as findings. The Radiological Control organization indicated they were aware of this weakness, and had recently been attempting to implement more rigorous assessments. One recent assessment of contamination control practices, dated July 2006, does appear to be more rigorous and classified certain items as findings. However, even in this more recent assessment several other issues that involved noncompliance conditions were still incorrectly classified as concerns rather than as findings. Correct classification affects management attention, priority in

developing corrective actions, and potentially screening for PAAA applicability and reporting.

- The reports for these radiological control program assessments include criteria for classifying the issues identified in the assessment. However, the criteria are only located in the assessment reports and are not embodied in any governing procedure. The Office of Enforcement noted that the criteria included inappropriately high thresholds for classifying issues as findings.

B. Independent Assessment

CWI's Independent Assessment program is primarily conducted by the Project Evaluation Board (PEB). The functioning of the PEB is described in the Program Description Document PDD-148, "Project Evaluation Board." While this document provides a comprehensive description of the intent of the program, it also includes what might be considered as governing requirements and methods for conduct of the independent assessment program. But this document is not a requirements document, since in the hierarchy of the CWI document control process this is a guidance document, and thus there is no requirements document for the independent assessment program.

PEB assessments are structured to be rigorous in that they are conducted by relatively large team (typically 15 to 17) of experts focusing broadly on activities and operations across an entire project or functional area. PEB assessments typically involve two-weeks of field time, in addition to preparation time and report writing. Structured this way, a project is subjected to a single comprehensive assessment once per year, as opposed to numerous smaller and more narrowly focused independent assessments. PEB assessments include verifying compliance of procedures or controls, direct observation of work, and judgments on the quality or adequacy of controls.

The above-referenced April 2006 PEB assessment report reflects identification of a broad range of noncompliance conditions (findings), including systemic issues. The breadth and nature of the findings reflects that a rigorous review was performed by the PEB of activities associated with the NMD Project. The management assessment deficiencies noted above as being identified by PEB are reflective of the level of scrutiny provided in this PEB review. The PEB serves management and the organization well by performing such rigorous reviews and identifying weaknesses that need to be addressed.

The PEB evaluation not only identifies findings and opportunities for improvement, but also provides a grading of performance in various areas as well as an overall grading of the project based on the collective results of the assessment. Areas identified as below average are highlighted for management to place broader or programmatic attention. As an example the April 2006 PEB assessment of the NMD

project graded as below average the assessment, conduct of operations, fuel handling operations, conduct of maintenance and training areas.

The PEB Department is in the ESH&Q organization, and reports to the Program Support Director so it is independent of functional areas within the ESH&Q organization as well as line organizations. Office of Enforcement staff reviewed the performance of the PEB by discussion with cognizant personnel and review of various program documentation, including a recent example PEB assessment report.

In addition to the PEB, independent assessments of implementation of selected quality assurance program elements are conducted by the Quality Assurance organization. Office of Enforcement staff also reviewed a sample of the Quality Assurance independent assessments.

Strengths:

- The PEB develops an annual schedule of projects and functional areas to be assessed, based on risk, hazards, process complexity, project or program performance, management concerns, and issues raised in other assessments. The schedule must be approved by the CWI Chief Operating Officer.
- PEB assessments are structured to provide rigorous reviews of ongoing activities.
- The April 2006 PEB assessment team included individuals from the Savannah River Site Facility Evaluation Board. Such exchange of information on assessment approaches and input from other sites enhances the effectiveness of the CWI PEB assessment activities.

Weaknesses:

- The PEB process is not governed by a requirements document, such as a governing procedure. It is only described by a program description document, which has the force of guidance. CWI's PEB process would be better served by leaving the general guiding principles and expectations of the program in the program description document, and institutionalizing the requirements for the program in a governing procedure.
- The PEB process was not effective at the early stages of contractual work in detecting the radiological control program issues that were later identified by the DOE Idaho Operations Office April 2006 assessment.

VII. Conclusion

The above summarizes the Office of Enforcement's review of CWI's PAAA program conducted during September 12-13, 2006. In general, the PAAA program was found to be generally acceptable. Any weaknesses identified during this review should be addressed to facilitate the Office of Enforcement's exercise of discretion as well as for mitigation consideration in any future enforcement action, and to ensure that nuclear safety problems receive appropriate recognition and corrective action. Any actions taken to address these items should be appropriately coordinated with the local DOE office.