

Department of Energy

Washington, DC 20585

October 10, 2002

Dr. D.B. Shipp

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Bechtel BWXT Idaho, L.L.C.

2525 Freemont Avenue

Idaho Falls, Idaho 83415

Subject: Bechtel BWXT Idaho Price-Anderson Amendments Act Program Review

Dear Dr. Shipp:

The Department of Energy's (DOE) Office of Price-Anderson Enforcement conducted a review of Bechtel BWXT Idaho's (BBWI) Price-Anderson Amendments Act Program (PAAA) during August 13-14, 2002. This PAAA program review included onsite interviews with key personnel.

The BBWI PAAA Program was evaluated against the criteria and guidance established by DOE Enforcement Guidance Supplement 00-02. As part of this review, your processes for identifying and screening nuclear safety noncompliances for PAAA applicability, reporting applicable noncompliances into DOE's Noncompliance Tracking System, your internal tracking and trending of noncompliances, and your causal analysis and corrective action processes were evaluated.

Overall, our review concluded that your PAAA program generally meets DOE expectations and guidance. The review identified some strengths and weaknesses in your program; these are summarized below and are described in more detail in the enclosed report.

PAAA Program Strengths

- BBWI has developed a centralized database--ICARE--for tracking and management of noncompliances and corrective actions.
- PAAA Office staff are knowledgeable and experienced, and have adequate authority and independence to make necessary decisions.
- PAAA training is formally established and required for designated individuals.
- The PAAA program is formally established through implementing procedures, and these procedures adequately address implementation of key program elements.

- PAAA noncompliance identification, screening, and reporting into NTS are generally consistent with DOE expectations.
- Causal analysis is performed using a graded approach for PAAA noncompliances and personnel performing causal analyses are trained and qualified.
- Self-assessments of PAAA program implementation are performed on a routine basis.

PAAA Program Weaknesses

- Identification and screening of PAAA noncompliances for subcontractors and vendors is not being consistently performed.

No reply to this program review or letter is required. Please contact Steven Zobel of my staff at (301) 903-2615 if you have any questions.

Sincerely,

for Stephen M. Sohinki
Director
Office of Price-Anderson Enforcement

Enclosure: PAAA Program Review

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Price-Anderson Amendments Act Program Review Bechtel BWXT Idaho, LLC

I. Introduction

The Department of Energy (DOE) Office of Price-Anderson Enforcement (OE) conducted a review of the Price-Anderson Amendments Act (PAAA) Program implemented by Bechtel BWXT Idaho, LLC (BBWI), at the Idaho National Engineering and Environmental Laboratory (INEEL). OE staff performed the review in accordance with DOE Enforcement Guidance Supplement 00-02, "Price-Anderson Amendment Act Program Reviews." This review evaluated BBWI's PAAA program pertaining to the identification and screening of nuclear safety noncompliances, how a noncompliance's reportability to the DOE Noncompliance Tracking System (NTS) is determined, the causal determination process for a noncompliance reported to the onsite tracking system and, possibly, the NTS, and corrective action implementation and closure. OE staff also reviewed BBWI procedures and other documents, and interviewed BBWI personnel during August 13-14, 2002.

II. General PAAA Program Implementation

The BBWI PAAA program is formally established and described in the following documents:

- Management Control Procedure (MCP) MCP-2547, "Identification, Reporting and Resolution of Price-Anderson Noncompliances," revision 6, dated January 11, 2001.
- Program Description Document (PDD) PDD-1102, "Price-Anderson Amendments Act (PAAA) Compliance Program," revision 0, dated September 30, 2000.
- Program Requirements Document (PRD) PRD-5071, "2.1 Quality Assurance Program," revision 3, dated March 6, 2002.
- PDD-1022, "RadCon Organization Function, Roles, Responsibilities and Interfaces," revision 1, dated November 16, 2000.
- PRD-183, "INEEL Radiological Control Manual," revision 6, dated July 6, 2000.

- MCP-598, "Corrective Action System," revision 14, dated January 11, 2001.

PDD-1102 provides the overall structure of the PAAA program, establishes the duties and responsibilities for BBWI personnel who are tasked by MCP-2547, describes the purpose of the PAAA Program, and establishes training requirements for the Compliance Officer and Compliance Coordinator.

MCP-2547 requires each administrative organization and major facility whose activities, including associated subcontractor/vendor activities, that have the potential for radiological harm, to designate a Compliance Officer and one or more Compliance Coordinators. The Compliance Officer and Compliance Coordinator have PAAA responsibilities for identifying, categorizing, reporting, and resolving nuclear safety noncompliances. This procedure also describes program oversight responsibilities for the PAAA Coordinator. Given the size and complexity of the INEEL, the decentralization of PAAA activities appears necessary. MCP-2547 is currently undergoing revision and is expected to be implemented by the end of 2002. The draft revision updates some of the terminology used for identifying cognizant individuals and includes time frames for certain activities.

PRD-5071 describes BBWI's Quality Assurance Program and provides roles and responsibilities for various individuals. This document assigns responsibility for the corrective action system to the Performance Assurance Manager and several self-assessment and surveillance requirements to other specific quality assurance managers. The roles and responsibilities for higher-level managers are further described in the following supplemental documents:

- BBWI intranet html document R2A2-66.htm "Quality Assurance Director," effective March 1, 2002.
- "Roles and Responsibilities, Accountabilities and Authorities for the Quality Assurance Directorate," revision 0, dated March 2002.

PDD-1022 establishes the roles, responsibilities, authorities, and interfaces for BBWI's Radiological Control Program (RadCon) and it directs the RadCon organization to assess PAAA issues within its purview. This document furthermore requires the development and implementation of performance indicators and a self-assessment program in accordance with established procedures.

PRD-183 is the site radiological control manual and provides, in its chapter 1, administrative requirements for maintaining radiological excellence in all activities governed by BBWI's Radiological Control Manual and Radiation Protection Program.

MCP-598 establishes the process and responsibilities for implementing a risk-based corrective action system. This procedure includes requirements for documenting noncompliances and corrective actions into the Issue Communication and Resolution Environment (ICARE) System.

The PAAA Program key elements are adequately described in these procedures, roles and responsibilities are defined, and sufficient detail is provided to facilitate program implementation. No weaknesses were identified in the scope and adequacy of these procedures.

Two qualified individuals staff the BBWI PAAA Program Office on a full-time basis, and the PAAA Coordinator reports to the General Manager for Environment, Safety, Health & Quality Assurance. The Coordinator, whose office is located near the President and Laboratory Director's office, has direct access to senior management.

Compliance Officers and Compliance Coordinators are responsible for identifying and screening potential PAAA noncompliances. The training requirements for Compliance Officers and Compliance Coordinators are described in PDD-1102 and training is provided by PAAA staff on a periodic basis; training records are also maintained by the PAAA Office and the sitewide Operations Training Directorate database. Presentation slides used for PAAA training were reviewed and found to provide a good overview for the general worker population. More in-depth training is provided to compliance personnel tasked through MCP-2547 with specific training requirements for the PAAA Compliance Officers and Coordinators. Individuals selected to perform causal analyses undergo qualification and training according to the following documents:

- PDD-1114, "Cause Analyst Training and Qualification Program," revision 2, dated March 20, 2002.
- Standard STD-1113, "Cause Analysis and Corrective Action Development," revision 0, dated September 1, 2000.

BBWI PAAA program applicability to subcontractors and vendors is established in PDD-1102. BBWI self-assessments of PAAA program implementation and OE staff's review identified that PAAA screening of subcontractor and vendor nonconformance reports (NCRs) was not being consistently performed. This is discussed in more detail in the next section.

III. Identification and Screening of Noncompliances

Compliance Officers and Compliance Coordinators within each site area, functional area, and program, as identified by MCP-2547, screen deficiency reports for PAAA applicability according to BBWI Form 410.07, "Price-Anderson Amendments Act (PAAA) Screening Form," revision 2, dated January 2, 2001. Instructions for the screening form are provided in Form 410.07A, revision 00, dated January 2, 2001. These instructions provide sufficient detail for conducting an initial assessment of a deficiency report. Each PAAA screening form is linked to its deficiency report by way of the deficiency report identifier number and both items are incorporated into the ICARE database; this database is used as the site's primary database for issues tracking. Deficiencies reported to ICARE include noncompliances occurring during

work activities, findings discussed in assessment reports, and from issues tracking and trending.

There are several other databases used for issues tracking including the Occurrence Reporting and Processing System (ORPS) and one for NCRs. The only ORPS issues tracked in ICARE are those having a PAAA noncompliance. NCRs, in the past, have not been consistently reviewed for PAAA issues. BBWI has identified this problem in one of its self-assessments of the PAAA program. During the onsite review, BBWI staff stated that NCRs would soon be incorporated into the ICARE database.

OE staff discussed the issue of identifying and assessing subcontractor deficiency issues concerning procured materials. BBWI includes two clauses in each contract for procured materials implementing PAAA requirements and requiring notification of nonconformances. BBWI personnel stated that it requires the subcontractor/vendor to be responsible for PAAA compliance since BBWI performs approximately 5,000 transactions annually through short-term contracts; thus, the impetus is to have the subcontractor/vendor conduct its own in-house surveillances. BBWI does do material receipt inspections as needed, and reports to ICARE any deficiency identified to BBWI by a subcontractor/vendor. A BBWI self-assessment identified that NCRs for subcontractor/vendor issues have not been consistently reviewed for PAAA noncompliances. OE staff selectively evaluated 11 NCRs generated within the past 12 months; only 5 of these NCRs had a documented PAAA screening. These 5 PAAA screening forms identified the nonconformance issues as not being PAAA noncompliances. Several of these determinations (NCR 27597, NCR 27871 and NCR 27925) were based on the fact that BBWI discovered the noncompliance during receipt inspection, and did not take into account the failure by the subcontractor Quality Assurance (QA) program to identify these deficiencies prior to releasing the product for use. Therefore, in these cases, a PAAA noncompliance did occur in the subcontractor QA program and should have resulted in a positive noncompliance screening.

A number of deficiency reports were obtained during the onsite review and later reviewed to assess the PAAA screening process. These reports, with the possible exception of one (as explained in section IV), appear to have been properly screened.

IV. Evaluation for Reportability

As stated in section II, MCP-2547 establishes the roles and responsibilities for individuals responsible for assessing deficiency issues for PAAA purposes, and Form 410.07 outlines that process from determining whether a deficiency is a PAAA noncompliance to if that noncompliance is reportable. The Compliance Office and Compliance Coordinator perform the initial determination of NTS reportability. The "owner" of the noncompliance, e.g., a site area director, is the authority who approves the reporting of a noncompliance to the DOE NTS. For the most part,

those deficiency reports that were reviewed and that had a positive screening for NTS reportability were submitted within the 20 day timeframe as stated in OE guidance. Furthermore, those issues reported to the NTS were found to be consistent with DOE guidance.

OE staff did have an issue with one NTS report in regard to timely reporting and complete information. In September 2001, DOE-ID issued an assessment report (QA-2001-11) to BBWI concerning quality assurance issues identified during July and August of that year. The assessment report had one major finding in that a number of instances were identified where quality-significant material was improperly controlled and stored; the report further stated this condition was considered to be site-wide and had been identified in previous DOE-ID surveillances. On August 16, 2002, though, BBWI submitted NTS report NTS-ID--BBWI-INEELPROGM-2002-0002 stating that its own assessment conducted during April and May 2002 (and report issued on June 10) identified this issue, and made no mention of DOE-ID's 2001 report. BBWI provided additional information to OE during a teleconference in that its Facility Evaluation Board (FEB) reviews conducted during 2001 had identified numerous similar issues prior to DOE-ID having found them. The NTS report, however, provided no information concerning the long-standing and recurring nature of these problems. Furthermore, no information was provided by the NTS report that would have allowed DOE and DOE-ID to know these problems were previously identified by the FEB, and identified substantially before the June 10, 2002, self-assessment report date. DOE probably would not grant mitigation credit for timely reporting or for self-identification of the long-standing and recurring nature of this noncompliance had this Quality Assurance issue resulted in an enforcement action.

OE staff interviewed several PAAA compliance officers from various site areas with respect to how each addresses PAAA issues. All were relatively consistent in their application of MCP-2547, and each seemed adequately qualified to perform these duties.

Due to the decentralized PAAA program for the INEEL, MCP-2547 requires each compliance officer to review non-NTS reportable noncompliances for adverse trends. MCP-2547 recommends this review be performed on a quarterly basis unless authorized by the cognizant site area director, or equivalent, to use a different frequency. MCP-598, "Corrective Action System," revision 14, dated January 11, 2001, furthermore requires quarterly reviews using established performance indicators. Quarterly evaluations of PAAA items appear to be the norm.

The BBWI PAAA Coordinator attends the biweekly Senior Operations Review Board meetings and provides to the Board a status report of all ongoing PAAA items.

V. Cause Determination/Corrective Action Closure

Causal determinations are performed by trained and qualified individuals as described in section II, and causal analyses are performed according to STD-1113. This document allows the use of either apparent or formal cause analysis depending upon the significance of the event; a formal cause analysis also involves the use of two root cause analysis techniques. An extent of condition (EOC) evaluation is recommended by PDD-1005, "Site Operations Manual," appendix E, revision 4, however, discussions with BBWI staff found that this is reserved for programmatic issues. In one instance, though, an EOC was not performed for an assessment of programmatic issues concerning waste handling at the Radioactive Waste Management Complex.

Corrective actions are developed in conjunction with the cause analysis and subsequently tracked through ICARE. However, since ICARE allows the extension of a due date without keeping a record of that extension, there was no evidence of any overdue corrective actions. The PAAA Coordinator, though, does track NTS corrective action due dates.

The OE staff did an evaluation of the timeliness for completing corrective actions for NTS reports submitted in 2001. NTS noncompliances are considered significant noncompliances and correction of these problems typically would be expected to be expeditiously completed. This evaluation compared the timeframe from when corrective actions were reported complete to the reports' occurrence identification date; this was also performed for those selected reports where corrective actions were still in progress. This evaluation did not include corrective actions that were scheduled as effectiveness evaluations. OE's evaluation found 20 percent of the 2001 NTS reports had corrective actions that were not completed until a year or more after identification. This is presented as an observation where further review may be warranted by DOE and DOE-ID to ensure corrective actions are being completed in a timely manner.

VI. Conclusion

The OE review determined that the BBWI PAAA program generally met DOE expectations and guidance. Specific strengths and the one weaknesses identified during the review are described in sections II-V of this report. The DOE Enforcement Policy (10 CFR 820, Appendix A) provides positive incentives for contractors who identify, report, and promptly and comprehensively correct nuclear safety noncompliances. The weaknesses identified in this report, if not corrected, could impact the application of enforcement discretion in any future enforcement action.