



U.S. Department of Energy  
**Office of River Protection**

P.O. Box 450  
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04-ESQ-013

Mr. J. P. Henschel, Project Director  
Bechtel National, Inc.  
2435 Stevens Center  
Richland, Washington 99352

Dear Mr. Henschel:

CONTRACT NO. DE-AC27-01RV14136 – ASSESSMENT REPORT A-04-ESQ-RPP-WTP-001 – PRICE-ANDERSON AMENDMENTS ACT (PAAA) PROGRAM ASSESSMENT FOR THE PERIOD JANUARY 5 THROUGH 12, 2004

This letter forwards the results of the U.S. Department of Energy (DOE), Office of River Protection (ORP), assessment of the Bechtel National, Inc. (BNI), PAAA Program Assessment conducted from January 5 through 12, 2004. A summary of the inspection is documented in the attached inspection report (Attachment 1).

The assessment team found BNI to have adequately addressed all of the Office of Price-Anderson Enforcement (OE) PAAA program weaknesses identified during the BNI PAAA program review conducted March 11 and 12, 2003. All corrective actions committed to by BNI in the corrective action plan submitted in letter CCN: 059140, "Contract No. AC27-01RV14136-Action Plan to Address Price-Anderson Amendments Act Program Review Recommendations," dated May 30, 2003, have been adequately implemented. The Contractor PAAA program conforms to established program requirements.

The assessment team identified the following areas that require improvement and will track them as an assessment follow-up item:

- Training requirements:
  - The screening of potentially reportable PAAA events by the BNI employee concerns group did not consider training requirements for all BNI staff that perform the screenings.
  
- Quarterly Noncompliance Tracking System (NTS) trending report:
  - Contained only limited performance indicator information;
  - Did not include sufficient rationale for some quarterly and real-time trend reviews; and
  - Did not get wide distribution.

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The team also evaluated the BNI PAAA Process Management Assessment (MA) of November 2003. The MA identified a weakness with the timeliness in completing root-cause analysis for NTS reported items. Problem contributors included the overall poor quality of past root-cause analyses and associated corrective action plans. ORP will track BNI's resolution of the MA recommendation, as an assessment follow-up item.

If you have any questions, please contact me, or your staff may call Robert C. Barr, Director, Office of Environmental Safety and Quality, (509) 376-7851.

Sincerely,

ESQ:SAV

Roy J. Schepens  
Manager

Attachments:

1. PAAA Program Assessment
2. Inspection Notes

cc w/attachs:

G. Shell, BNI  
W. R. Spezialetti, BNI  
Administrative Record

U.S. DEPARTMENT OF ENERGY  
Office of River Protection

INSPECTION: Price-Anderson Amendments Act (PAAA) Program Assessment

REPORT NO: A-04-ESQ-RPP-WTP-001

FACILITY: Bechtel National, Inc.

LOCATION: 2435 Stevens Center  
Richland, Washington 99352

DATES: January 5-12, 2004

INSPECTORS: Patrick P. Carrier, Inspection Lead  
Samuel A. Vega, DOE Inspector

APPROVED BY: Patrick P. Carrier, Verification and Confirmation Official  
WTP Safety Regulation Division

## **Price-Anderson Amendments Act (PAAA) Program Assessment From January 5 through 12, 2004**

### **Introduction**

In March 2003, the Office of Price-Anderson Enforcement (OE) performed a review of the Bechtel National, Inc. (BNI) PAAA Program. This review included an evaluation of contractor processes for identification and screening of potential noncompliances, reporting and tracking noncompliances in the Noncompliance Tracking System (NTS) and the BNI internal tracking system, and the formal resolution and tracking of NTS reported issues. The results of this review indicated that the BNI program was a “startup” program that would require additional improvements to effectively support the expanding scope of project activities. OE noted that fundamental program elements were in place and PAAA activities were being carried out, including effective identification and reporting of several significant quality problems. In the report issued April 17, 2003, the OE identified nine program weaknesses in the six program areas reviewed. These included:

### **General Implementation:**

- BNI procedure 24590-WTP-GPP-QA-101, Revision 2 did not adequately describe how the BNI PAAA program was implemented; and
- No formal training and or qualification requirements had been established for the BNI PAAA Coordinator and the PAAA Analyst positions.

### **Identification and Screening:**

- Terms used to indicate disposition/action of the reviewed items (“track,” “trend”) were not formally defined and the intended BNI action was not apparent;
- Examples were noted in which source items were reviewed > six months previous and no determination or intended action was identified; and
- With the expectation of Corrective Action Reports (CAR), documentation was generally lacking for PAAA screening activities performed by the PAAA coordinator.

### **Evaluation of NTS Reputability:**

- Noted weakness in the documentation of trending performed by the PAAA coordinator.

### **Causal Analysis:**

- Management direction and focus on including behavior issues as part of the root cause process had not been institutionalized in any policy, procedure or guide.

**Corrective Action Process:**

- The CAR procedure did not address steps to withdraw or cancel a CAR.

**PAAA Program Assessment:**

- Many improvement areas identified by OE had been previously identified in assessments of BNI PAAA program performed during 2002. OE is concerned with the lack of management attention and emphasis in correcting these previously identified problems.

On May 8, 2003, The U.S. Department of Energy, Office of River Protection (ORP) issued a letter requesting BNI develop an action plan to address the OE identified program weaknesses. BNI responded with a plan committing to address all the OE recommendations.

During the period January 5-12, 2004, ORP conducted an assessment of BNI (the Contractor) PAAA Program. The focus of this assessment was to verify the adequate completion by BNI of the corrective actions addressing the OE identified PAAA program weaknesses.

**Significant Observations and Conclusions**

**Overall Conclusion**

The Contractor adequately addressed all the OE PAAA program weaknesses identified during the BNI PAAA program review conducted March 11-12, 2003. All corrective actions submitted by BNI in letter CCN: 059140, "Contract No. AC27-01RV14136-Action Plan to Address Price-Anderson Amendments Act Program Review Recommendations," dated May 30, 2003, have been implemented. The Team concluded the Contractor PAAA program conforms to established program requirements. Corrective actions implemented included:

- Revamping of the PAAA process procedures to implement process improvements, and recommendations made by the OE and other assessment activities;
- Correcting inconsistencies with actual work practices and the written procedures;
- Formalizing training and qualification requirements; and
- Improving the PAAA processes to enhance documentation of NTS applicability and trend reviews, including trend reporting.

This assessment identified the following areas requiring improvement:

- Training requirements:
  - The screening of potentially reportable PAAA events by the BNI employee concerns group did not consider training requirements for all BNI staff that perform the screenings.

- Quarterly NTS trending report:
  - Contained limited performance indicator information;
  - Insufficient rationale was provided for some quarterly and real-time trend reviews; and
  - Distribution of the report was too limited to assure proper management attention.

These improvement areas will be tracked as a follow-up item by ORP.

The BNI Management Assessment (MA) conducted in November 2003, of the BNI PAAA process identified a weakness with the timeliness in completing root cause analysis for NTS reported items. Problems with the overall quality of past root-cause analyses and the associated corrective action plans contributed to the lack of timeliness. This was entered into the BNI Quality Assurance Information System (QAIS) database for resolution tracking. ORP will track BNI's resolution of the MA recommendations as a follow-up item.

### **General Implementation**

- The Contractor procedure 24590-WTP-GPP-QA-101, "Price-Anderson Amendments Act Compliance and Reporting," and the associated evaluation guide, 24590-WTP-GPP-QA-011, Revision 1 were revised to address OE concerns with procedures not adequately describing how the BNI program was implemented. Discrepancies between the procedure and the process flow chart provided in Appendix A of the procedure also were corrected. Current BNI procedures reflect actual program implementation and satisfied the process requirements identified in the OE published operational procedure; "Identifying, Reporting, and Tracking Nuclear Safety Noncompliances." (Inspector Notes 001-01)
- Contractor procedure 24590-WTP-GPP-QA-101, "Price-Anderson Amendments Act Compliance and Reporting," was revised to address OE concerns with the lack of a formalized training process for those involved in PAAA related activities. The procedure revision defined the minimum experience requirements for the PAAA Coordinator, the PAAA Evaluator, and specified the PAAA Review Board (PRB) was to consist of senior management of specified organizations. Training requirements and qualifications were adequately specified for coordinators, evaluators, board members, and for the project director. (Inspector Notes 001-01)
- Contractor procedure 24590-WTP-GPP-QA-101, "Price-Anderson Amendments Act Compliance and Reporting," depended on the individual training profile to assure training (mostly reading assignments) of the BNI procedures for activities applicable to the PAAA process. The procedure adds additional required reading of PAAA rules and requirements. The BNI procedure was adequate in identifying required training. (Inspector Notes 001-01)
- The assessor found that limited PAAA applicability screenings were performed by an Employee Concerns Program staff (principally for 10 CFR 708 related items). Indoctrination and coaching was provided to this evaluator, but was not documented. The procedure was not clear as to what training and qualification requirements apply to individuals outside the PAAA organization performing PAAA applicability screens. The procedure is also silent as

to how the PAAA organization will maintain responsibility and monitor these applicability screenings. BNI was in the process of correcting this training process weakness.

- The Contractor MA conducted November of 2003 focused on process effectiveness with emphasis on the correction of previously identified weaknesses. The MA identified a weakness with the timeliness in completing root-cause analysis for NTS reported items. Problems with the overall quality of past root cause analyses and the associated corrective action plans contributed to the lack of timeliness. To resolve this problem PAAA staff had been working closely with and coaching organizations responsible for conducting NTS related root cause analysis and corrective action plans. This is an organizational, problem requiring management attention and resources to correct. ORP will monitor BNI's progress in correcting this weakness. (Inspector Notes 001-01)

### **Conclusion:**

The assessor concluded the Contractor had adequately addressed all the OE concerns in this area. Except for the weaknesses noted above, the BNI procedures meet PAAA program requirements. BNI PAAA staff was found to be knowledgeable of the process and requirements, and the BNI process procedures were being followed. The BNI MA was thorough in the scope and coverage. Recommendations provided were good, and the team was well qualified, containing members with PAAA experience from other sites.

### **Identification and Screening**

- The Contractor adequately addressed the OE concern with not defining terms used to indicate disposition/action of applicability reviews. This was accomplished by removing unnecessary or ambiguous terms from the procedures. 24590-WTP-GPG-QA-011, "PAAA Issues Evaluation Guide," continued to use the disposition "Track," but the procedure was clear as to its intent. (Inspection Note 001-02)
- The Contractor was successful in eliminating the backlog of documents requiring PAAA applicability screenings and processing by adding a PAAA Applicability Screening Module to the QAIS. The applicability screenings were documented and tracked in QAIS, allowing for better management of the process. (Inspection Note 001-02)
- The QAIS Applicability Screening Module also allowed the Contractor to adequately address the OE concern with the lack of documentation of PAAA screening activities performed by the PAAA coordinator. All screenings were documented in the QAIS. In addition, 24590-WTP-GPP-QA-101, "Price-Anderson Amendments Act Compliance and Reporting," was revised to identify a list of primary documents requiring 100% PAAA applicability screening, and a secondary list of documents that were "reviewed selectively." The assessor found BNI has screened all recent issues identified by the documents on the primary list and also a majority of the documents on the secondary list. The addition of the PAAA module to the QAIS has provided a valuable tool to the PAAA staff to manage the PAAA process. All

applicability reviews were documented and maintained within the module. (Inspection Note 001-02)

### **Conclusion:**

The assessor concluded the Contractor had adequately addressed all the OE concerns in this area. The assessor found the PAAA Screening module to be a good tool for managing and documenting the PAAA applicability screenings.

### **Evaluation of NTS Reportability**

- At the time of the OE visit, documentation was only maintained for those issues identified as repetitive or programmatic trends and subsequently sent to the PRB for reportability review, but there were no records maintained to document the PAAA coordinator's routine review and decisions indicating a PAAA related trend did not exist. This was a concern to the OE. The Contractor adequately addressed this concern by initiating the following:
  - Revising PAAA trending to include assigning a cause code, which identifies the specific rule requirement not satisfied, and by adding the assignment of "bin" categories to all PAAA applicable issues based on the process the issue impacts. The cause code and bin category for each issue applicable to PAAA is documented in the QAIS PAAA Module;
  - Initiating periodic reviews of cause codes and bin categories to identify suspect trends. Suspected trends are verified and sent to the PRB for review if warranted; and
  - Initiating quarterly reviews of all trend data and issuing a quarterly trend reports. Reported topics include status of performance indicators, identification of processes failings identified as potential trends needing further investigation, and the results of investigations performed to verify if a PAAA reportable trend exists. (Inspection Note 001-03)
  
- To date, only one quarterly report had been issued. The assessor found the report to satisfy the OE concern, but also identified the following weaknesses:
  - The report contains limited performance Indicator information. The report should contain indicators of needed process improvement previously identified. Examples from the latest BNI MA would include root-cause analysis and corrective action timeliness;
  - Insufficient rationale was provided of some quarterly and real-time trend reviews. This report becomes the only documentation of this type of reviews and should have sufficient detail to support BNI's non-reportable decision; and
  - Distribution of the report was too limited to assure proper management attention. (Inspection Note 001-03)
  
- Interview with BNI PAAA staff indicated that improvements such as those identified by the assessor were also identified by BNI and were planned to be incorporated in the next quarterly report. (Inspection Note 001-03)



**Conclusion:**

The assessor concluded the Contractor had adequately addressed all the OE concerns in this area. The assessor found the PAAA Screening module to be a good tool for documenting the PAAA applicability screenings and the initial trending information necessary to generate the quarterly trend report. The real time trending effort was also found to be a good tool for identifying trend related issues more timely then once per quarter.

**Causal Analysis:**

- The Contractor adequately addressed the OE concern with the lack of management direction within a BNI policy, procedure or guide on including behavior issues as part of the root cause process by revising both the procedure and the guide (24590-WTP-GPP-QA-205, “Root Cause Analysis,” and 24590-WTP-GPG-QA-204, “Root Cause Analysis Guide,”) to include in the introduction an explanation of management’s expectation to include analysis of behavior issues when conducting a root cause. The process described in the guide also provides guidance on including behavior as well as process and program issues in the analysis. (Inspection Note 001-04)

**Conclusion:**

The assessor concluded the Contractor had adequately addressed the OE concern in this area. Both the root cause analysis procedure and the guide were clear in explaining the expectation of including an analysis of behavior as well as process and program issues when conducting a root cause analysis.

**Corrective Action Process**

- The Contractor adequately addressed the OE concern with the corrective action procedure not addressing steps to withdraw or cancel a CAR by revising 24590-WTP-GPP-QA-201, “Corrective Action,” to include a process for canceling previously validated CARs. The assessor verified the process was implemented and found it to satisfy the OE concern. (Inspection Note 001-05)
- The OE report identified two CARs canceled bases on inappropriate resolution. The Contractor responded by conducting a review of all previously canceled CARs for adequacy in the rational provided. The assessor reviewed the final report and the corrective actions implemented. In many cases, including the two CARs identified by OE, the justification for canceling the CAR only needed to be revised or augmented to make the rational clearer. The review did not find any inappropriately canceled CARs. The assessor found the results of this review and the revised justifications to be adequate. (Inspection Note 001-05)

**Conclusion:**

The assessor concluded the Contractor had adequately addressed all the OE concerns in this area. The procedure revision and current practices meet program requirements.

**PAAA Program Assessment**

- The Contractor adequately addressed the OE concern with the lack of management attention and emphasis in correcting previously identified problems by requiring all the Contractor organizations to enter all recommendations and issues into the newly developed Recommendations and Issues Tracking System (RITS) for tracking these issues and recommendations to resolution. Associated Contractor procedures were revised to require the use of the RITS. (Inspection Note 001-06); and
- The assessor verified all identified recommendations and issues relating to PAAA were being tracked in the RITS. The assessor found no instance where PAAA related recommendations or issues were not documented and tracked in RITS. (Inspection Note 001-06)

**Conclusion:**

The assessor concluded the Contractor had adequately addressed all the OE concerns in this area. All PAAA related recommendations and issues were maintained and managed in RITS.

**List of Items Opened, Closed, and Discussed**

A-04-ESQ-RPP-WTP-001-A01	Follow-up Item	Determine if the Contractor has resolved the identified weakness with the timeliness in completing root cause analysis for NTS reported items where lack of timeliness was contributed to the overall quality of past root cause analyses and the associated corrective action plans See Inspector Notes A-04-ESQ-RPP-WTP-001-01.
A-04-ESQ-RPP-WTP-001-A02	Follow-up Item	Determine if the Contractor has formally established within PAAA operating procedures the qualification and training requirements for individuals outside the PAAA organization performing preliminary PAAA screening (i.e., Employee Concerns organization) See Inspector Notes A-04-ESQ-RPP-WTP-001-01.
A-04-ESQ-RPP-WTP-001-A03	Follow-up Item	Determine if the Contractor has incorporated the following improvements into the quarterly NTS trending reports: <ul style="list-style-type: none"><li>• Contains limited performance Indicator information;</li><li>• Insufficient rationale provided of quarterly and real-time trend evaluations not sent to the PRB for review; and</li><li>• Distribution of report was to limited to assure proper management attention.</li></ul> See Inspector Notes A-04-ESQ-RPP-WTP-001-03.