



U.S. Department of Energy
Office of River Protection

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03-OSR-0007

Mr. R. F. Naventi, Project Manager
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Dear Mr. Naventi:

**CONTRACT NO. DE-AC-01RV14136 – INSPECTION REPORT A-03-OSR-RPPWTP-004 –
ASSESSMENT, CORRECTIVE ACTION, AND PRICE-ANDERSON AMENDMENTS ACT
OF 1988 (PAAA) PROGRAM INSPECTION**

This letter forwards the results of the U.S. Department of Energy, Office of River Protection review of Bechtel National, Inc. (BNI) Assessment, Corrective Action, and PAAA Program Inspection conducted November 18 through December 9, 2002. No findings were identified during this inspection. Details of the inspection are documented in the enclosed inspection report.

The inspection included independent audits/assessments, management assessments, incident investigation and reporting, corrective actions, significant conditions adverse to quality, quality trending, stop work, audit/lead auditor qualifications, and the PAAA Program. BNI's independent audits/assessments, incident investigation and reporting, stop work, auditor/lead auditor qualifications and PAAA programs met the contractual requirements.

The Contractor had self-identified (e.g., through gap analyses) several weaknesses within their management assessment, corrective action, significant conditions adverse to quality, and quality trending programs, and had begun corrective action on these areas of weakness. The inspectors reviewed the Contractor's results of the gap analyses, and the resultant corrective actions. The inspectors concluded the corrective actions to improve the areas of weakness will make the Contractor's management assessment, corrective action, significant conditions adverse to quality, and quality trending programs more effective.

Mr. R. F. Naventi
03-OSR-0007

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If you have any questions, please contact me, or your staff may call Robert C. Barr, WTP Safety Regulation Division, (509) 376-7851.

Sincerely,

OSR:PPC

Roy J. Schepens
Manager

Enclosure

cc w/encl:
G. Shell, BNI

U.S. DEPARTMENT OF ENERGY
Office of River Protection
WTP Safety Regulation Division

INSPECTION: ASSESSMENT, CORRECTIVE ACTION, AND PRICE-ANDERSON
AMENDMENTS ACT OF 1988 (PAAA) PROGRAM INSPECTION

REPORT: IR-A-03-OSR-RPPWTP-004

FACILITY: Bechtel National, Inc.

LOCATION: 3000 George Washington Way
Richland, Washington 99352

DATES: November 18 through December 9, 2002

INSPECTORS: W. Pasciak, Lead Inspector
P. Carier, Inspector
P. Hernandez, Inspector
S. English, Inspector
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APPROVED BY: P. Carier, Verification and Confirmation Official
WTP Safety Regulation Division

EXECUTIVE SUMMARY

Assessment, Corrective Action, and
Price-Anderson Amendments Act of 1988 (PAAA) Program Inspection
Inspection Report Number IR-A-03-OSR-RPPWTP-004

INTRODUCTION

This inspection of Bechtel National, Inc. (BNI – the Contractor) Assessment and Corrective Action processes, and the PAAA Program covered the following specific areas:

- Independent Audits/Assessments (Section 1.2)
- Management Assessments (Section 1.3)
- Incident Investigation and Reporting (Section 1.4)
- Corrective Actions (Section 1.5)
- Significant Conditions Adverse to Quality (Section 1.6)
- Quality Trending (Section 1.7)
- Stop Work (Section 1.8)
- Auditor/Lead Auditor Qualifications (Section 1.9)
- PAAA Program (Section 1.10)

SIGNIFICANT OBSERVATIONS AND CONCLUSIONS

- **Independent Audits/Assessments** – The Contractor’s independent audit/assessment procedure was effective, and independent audits/assessments were scheduled, planned, performed, and reported in accordance with the procedure. In addition, the inspectors concluded independent audit/assessment teams were selected in accordance with the procedure, deficiencies identified during the independent audits/assessments were documented in corrective action reports (CAR), and independent audit/assessment reports and plans were maintained within the Contractor's records management system.
- **Management Assessments** – The Contractor conducted a gap analysis to confirm the management assessment process complied with the QA Manual Policy Q-18.3 and contractual requirements prior to the inspection. During this gap analysis, the Contractor self-identified the following two conditions adverse to quality and documented them on a CAR: (1) there was no evidence adequacy of resources was evaluated in several management assessments; and (2) there was no evidence proper distribution was performed on several management assessments. The inspectors reviewed the gap analysis, the management assessments listed above, and the CAR, and agreed with the actions taken and proposed actions to be taken by the Contractor.

In addition, the Contractor identified the following areas for improvement in the management assessment program to facilitate improved effectiveness: (1) the management assessment procedure could be improved to provide clarification on management’s expectations on subjects for management assessments (i.e., focused on high risk activities) and the depth of the review; and (2) individuals should be encouraged to write CARs on items identified that need improvement. The Contractor’s Deputy

Project Manager expressed his expectations (see above) for future management assessments via internal memorandum.¹ The inspectors reviewed the memorandum and concluded the direction communicated should help the Contractor's management improve their management assessments of their organizations. (Section 1.3)

- **Incident Investigation and Reporting** – The Contractor's categorization, notification, investigation, and reporting of events was performed in accordance with requirements of the Contractor's procedure 24590-WTP-GPP-SIND-001B, *Reporting Occurrences in Accordance with DOE Order 232.1A*, and DOE O 232.1A, *Occurrence Reporting and Processing of Operations Information (ORPS)*. (Section 1.4)
- **Corrective Actions** – The Contractor conducted a gap analysis to confirm the corrective action process complied with the QA Manual Policy Q-16.1 and procedure 24590-WTP-GPP-QA-201 prior to the inspection, in the areas of identification and classification of conditions adverse to quality, notification of appropriate levels of management, and determination and verification of corrective action. Within the gap analysis, the Contractor identified areas of weakness involving the determination of the extent of the condition adverse to quality and the timeliness of implementation of the corrective actions. The Contractor had taken a variety of actions to correct these areas of weakness, including establishing a Safety Quality Council to review requests for extensions in implementation of corrective actions.

In addition, the Contractor had taken several other actions to make improvements in the overall corrective action process. The inspectors reviewed the Contractor's gap analysis and the CARs reviewed by the Contractor during the gap analysis, and concluded the Contractor had developed significant corrective actions to improve the corrective action process. (Section 1.5)

- **Significant Conditions Adverse to Quality** – The Contractor's gap analysis on the corrective action process discussed in Section 1.5 of this report included the CARs classified as significant conditions adverse to quality. The Contractor identified an area of weakness specific to the significant conditions adverse to quality (i.e., the depth and breadth of root cause investigation and analysis was insufficient). The Contractor had committed to DOE in writing to improve the root cause analysis process through training and experience opportunities to staff and establishing a leader for project-wide application of causal analysis. The inspectors reviewed the Contractor's gap analysis, all CARs classified as significant conditions adverse to quality, and the memorandum from the Contractor to DOE related to root cause analysis, and concluded the Contractor was actively making improvements in this area. The inspectors concluded root cause analysis improved as the corrective actions by the Contractor were implemented. (Section 1.6)
- **Quality Trending** – The Contractor's gap analysis on the corrective action process discussed in Section 1.5 of this report included the area of quality trending. The Contractor determined the trends were reported at too high of a level to allow identification of distinct problem areas, and was actively making improvements in this

¹ BNI internal memorandum from J. P. Betts to Distribution, "WTP Management Assessment Program," CCN-042876, dated September 30, 2002.

area. The Contractor's improvements included re-categorization of the CARs to allow better identification of specific problems. The inspectors reviewed the gap analysis and several trend reports, and concluded the Contractor had improved in the quality trending process.

In addition, the Contractor identified a trend in the decline in timeliness of implementation of corrective actions and closure of CARs as discussed in Section 1.5 of this report. The Contractor had self-initiated corrective actions to require any requests for extensions to be approved by the Safety Quality Council. The inspectors concluded this corrective action had improved the process. (Section 1.7)

- **Stop Work** – No formal Stop Work Orders had been issued by the QA organization, thus, no conclusions on the stop work process could be drawn. The Contractor's QA Manager expressed no reluctance in initiating a formal Stop Work Order should the situation warrant it. (Section 1.8)
- **Auditor/Lead Auditor Qualifications** – The Contractor's process for qualifying and certifying auditors and lead auditors was in compliance with the QA Manual and procedure with the exception of the requirement within the procedure to submit qualification and certification records to the Project Document Control (PDC) for forwarding to the training department. Current practice is the records are not sent to PDC, but are sent directly to the training department. The Contractor's procedure should be changed to reflect current practice. This issue will be followed as Inspector Follow-up Item A-03-OSR-RPPWTP-004-IFI. (Section 1.9)
- **PAAA Program** – The Contractor's PAAA Program met contractual requirements for identifying, reporting, correcting and tracking PAAA noncompliances. The inspectors identified several positive aspects and opportunities for improvement within the PAAA Program. (Section 1.10)

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**ASSESSMENT, CORRECTIVE ACTION, AND
PRICE-ANDERSON AMENDMENTS ACT OF 1988 (PAAA) PROGRAM
INSPECTION REPORT**

1.0 REPORT DETAILS

1.1 Introduction

In accordance with the River Protection Project Waste Treatment and Immobilization Plant (WTP) Contract,² the Contractor must comply with the accepted and approved *Quality Assurance Manual*, 24590-WTP-QAM-QA-01-001, Rev. 2 (referred to as the QA Manual in this report).

The inspectors reviewed the Contractor's assessment and corrective action programs and activities to determine if they complied with the commitments in the QA Manual and the implementing procedures that deploy the requirements. The inspectors reviewed the Contractor's PAAA Program. This onsite review was initiated on November 18, 2002, and completed with an exit meeting on November 25, 2002.

The PAAA Program portion of the inspection was performed to assess the Contractor's program for identifying, reporting, correcting and tracking PAAA noncompliances. The contractual requirements for establishing a PAAA reporting program were described in the Contractor's Integrated Safety Management Plan (ISMP), Section 2.5, *Compliance with 10 CFR 820, "Procedural Rules for DOE Nuclear Activities."* The U.S. Department of Energy (DOE), Office of Enforcement and Investigation (OE) provided guidance on how to conduct a PAAA program review to ensure the Contractor's program for noncompliance identification and reporting accomplishes the following basic functions: (1) identification and screening; (2) evaluation of reportability; (3) cause determination; and (4) noncompliance/ corrective action closure.

This guidance was provided to DOE and Contractor PAAA Coordinators via Enforcement Guidance Supplement (EGS) 00-02, PAAA Program Reviews, dated August 21, 2000. The criteria described in the EGS served as the basis for this portion of the inspection. Since most of the scope covered in the EGS was non-mandatory the inspection write-up consists of strengths and opportunities for improvements for the functional areas listed above. The format for this section of the inspection report was intended to mirror the format used by OE when they perform a program review.

The inspection also included a verification of completion of corrective actions from two findings from previous inspections: IR-02-001-01-FIN and IR-02-002-01-FIN.

The scope of this inspection included activities conducted since the previous inspection performed in January 2002 (i.e., IR-02-001).

² Contract DE-AC27-01RV14136 between the U.S. Department of Energy and Bechtel National, Inc., dated December 11, 2000.

1.2 Independent Audits/Assessments (Inspection Technical Procedure (ITP) I-103)

1.2.1 Inspection Scope

The inspectors interviewed Contractor personnel responsible for leading audits/assessments and reviewed records of independent audits/assessments to confirm compliance in the following areas:

- Effectiveness of the Independent Audit/Assessment Procedure
- Scheduling of Independent Audits/Assessments
- Independent Audit/Assessment Planning
- Independent Audit/Assessment Team Selection
- Independent Audit/Assessment Performance
- Independent Audit/Assessment Reporting
- Independent Audit/Assessment Responses
- Independent Audit/Assessment Records.

1.2.2 Observations and Assessments

Effectiveness of the Independent Audit/Assessment Procedures

The inspectors selected the following three independent audit/assessments to review and interviewed the respective Audit Team Leaders to confirm compliance in the areas listed above:

- 24590-WTP-IAR-QA-02-002, an unscheduled independent audit/assessment of procurement activities, conducted January 17, 2002 through February 6, 2002, and the report was issued on March 21, 2002.
- 24590-WTP-IAR-QA-02-006, an independent audit/assessment of engineering design activities, performed July 8 through 18, 2002, and the report was issued on September 4, 2002.
- 24590-WTP-IAR-QA-02-007, an independent audit/assessment of the Research and Technology organization, conducted August 12 through 19, 2002, and the report was issued October 16, 2002.

The inspectors interviewed the Audit Team Leaders from each of the independent audits/assessments selected above to determine if they had any problems using the procedure 24590-WTP-GPP-QA-501, *Independent Audits (Assessments)*. Each of the Audit Team Leaders told the inspectors they had no problems using the procedure, and found it to be straightforward and easy to follow. The inspectors reviewed the Contractor's procedure and confirmed it contained the requirements of QA Manual Policy Q-18.1, and was adequately implemented.

Scheduling of Independent Audits/Assessments

The inspectors reviewed Revision 3 (dated May 2002), Revision 4 (dated July 2002), and Revision 5 (dated October 2002) of 24590-WTP-SC-QA-01-002, the WTP QA Internal Audit Schedule, to confirm the schedule had been developed, reviewed periodically, and revised as necessary. The inspectors compared the listing of independent audits/assessments provided by the Contractor in preparation for the inspection with the scheduled independent audits/assessments and confirmed the scheduled independent audits/assessments had been performed as scheduled. The inspectors determined development, review, and revision of the annual independent audit/assessment schedule was conducted in accordance with QA Manual Policy Q-18.1, Sections 3.2.6 and 3.3.4.

The inspectors interviewed the Manager of QA Assessments to determine the criteria used in scheduling independent audits/assessments. The Manager of QA Assessments told the inspectors feedback from the construction surveillances fed into the audit schedule. He told the inspectors he informally contacted (via telephone) construction management personnel periodically to determine the construction activities to be audited. In addition, the Manager of QA Assessments told the inspectors the QA representative at the site attended the daily construction meetings and discussed the need to conduct independent audits/assessments based on results of the meetings. The inspectors attempted to verify these things; however there was no objective evidence of these discussions. The inspectors did not consider this a problem since review of the schedules concluded coverage of independent audits/assessments was satisfactory and met the requirements of QA Manual Policy Q-18.1, Sections 3.2.1, 3.2.2, 3.2.3, and 3.2.4.

Independent Audit/Assessment Planning

The inspectors reviewed the audit plans for the three independent audits/assessments selected above to confirm they contained the following information as required by the Contractor's QA Manual Policy Q-18.1, Section 3.4.2:

- Audit scope
- Requirements for performing the audit
- Type of audit personnel needed
- Activities to be audited
- Organizations to be notified
- Applicable documents
- Schedule
- Written implementing documents or checklist to be used.

The inspectors concluded the required information was included in the audit plans reviewed. The inspectors determined the audit plans were developed in accordance with the requirements of QA Manual Policy Q-18.1, Section 3.4.2.

The inspectors reviewed the three independent audit/assessment reports selected above to confirm technical evaluations were included within the audit scope. In all cases, technical documents were evaluated during the independent audit/assessment, and in one case (i.e., independent audit/assessment 24590-WTP-IAR-QA-02-006) a technical specialist participated as

an audit team member. The inspectors determined the independent audits/assessments contained technical evaluations of the applicable procedures, as required by the QA Manual Policy Q-18.1, Section 3.4.3.

The inspectors interviewed the Audit Team Leaders to confirm the scope of the three independent audits/assessments selected above was based on the required factors from the Contractor's QA Manual Policy Q-18.1, Section 3.4.4. The inspectors were satisfied the Audit Team Leaders considered results of previous audits, impact of significant changes in personnel, procedures, and organization, and items to be audited when developing the scope for their respective independent audits/assessments.

Independent Audit/Assessment Team Selection

The inspectors interviewed the Manager of QA Assessments to determine how the independent audit/assessment team members were selected. The inspectors were told the Audit Team Leaders selected the independent audit/assessment team members. The inspectors interviewed the Audit Team Leaders and confirmed that was correct. The Audit Team Leaders for the three independent audits/assessments selected above each said they selected the independent audit/assessment team members by their experience and availability. The Audit Team Leader who selected a technical specialist (i.e., independent audit/assessment 24590-WTP-IAR-QA-02-006) selected the individual because of her experience and familiarity with the design control process. All Audit Team Leaders mentioned they confirmed the selected independent audit/assessment team members were not directly responsible for the work to be audited, as required by QA Manual Policy Q-18.1, Section 3.6.1. The inspectors reviewed the Contractor's organization chart and confirmed the independent audit/assessment team members, including the technical specialist used, were not directly responsible for the work to be audited.

The inspectors reviewed the independent audit/assessment reports for the three independent audits/assessments selected above to confirm the independent audit/assessment team included representatives from the QA organization. Each Audit Team Leader was from the QA organization, and each independent audit/assessment contained one or more auditors as required by the QA Manual Policy Q-18.1, Sections 3.6.2 and 3.6.3.

Independent Audit/Assessment Performance

The inspectors reviewed the completed checklists used for each of the three independent audits/assessments selected above to confirm the elements selected for each independent audit/assessment were evaluated against specified requirements. In addition, the inspectors reviewed the selected independent audit/assessment reports to determine the effectiveness of the QA program during each independent audit/assessment. The inspectors confirmed the requirements of QA Manual Policy Q-18.1, Sections 3.1.1, 3.2.5, and 3.7.3 were met satisfactorily.

The inspectors interviewed the Audit Team Leaders from the three independent audits/assessments selected above and reviewed the independent audit/assessment reports to confirm the assigned team members had received training prior to the beginning of the audit. One report (i.e., 24590-WTP-IAR-QA-02-006) mentioned the training provided to the technical

specialist. The inspectors determined the training described in the report was sufficient to familiarize the technical specialist with good auditing techniques. Each Audit Team Leader mentioned the expectations of the independent audit/assessment, area assignments, and any questions by the independent audit/assessment team were discussed during the pre-audit meeting. No meeting minutes were recorded during the pre-audit meetings; however, the inspectors determined the training provided to the independent audit/assessment teams was satisfactory to meet the requirements of QA Manual Policy Q-18.1, Section 3.6.7.

The inspectors reviewed the three independent audit/assessment reports selected above and completed written checklists for each independent audit/assessment to confirm objective evidence was examined to the depth necessary to determine if the elements were being effectively implemented. The inspectors determined the checklists prepared by the independent audit/assessment teams were satisfactory to meet the requirements of QA Manual Policy Q-18.1, Sections 3.5.1 and 3.7.2, and contained sufficient references to objective evidence reviewed during the independent audit/assessment as required by QA Manual Policy Q-18.1, Section 3.7.4.

Independent Audit/Assessment Reporting

The inspectors reviewed the three independent audit/assessment reports selected above to confirm the Audit Team Leader had signed each report, and each report was distributed to the audited and impacted organizations. The inspectors determined the reports were signed by the respective Audit Team Leader, and the reports were distributed to the audited and impacted organizations as required by QA Manual Policy Q-18.1, Section 3.7.5 and 3.8.1.

The inspectors reviewed the three independent audit/assessment reports selected above to confirm they contained the following information, as required by QA Manual Policy Q-18.1, Section 3.8.2:

- Description of the audit scope
- Identification of the auditors and persons contacted
- Summary of audit results, documents reviewed, persons interviewed and results of the interviews
- Statement of effectiveness of the elements audited
- Description of each reported adverse audit finding.

The information listed above was included in each of the three independent audit/assessment reports selected above. The inspectors confirmed independent audits/assessments were documented satisfactorily.

The inspectors reviewed the three independent audit/assessment reports selected above to confirm conditions requiring prompt corrective action were reported to management of the audited organization. The following Corrective Action Reports (CAR) were reviewed for each

of the independent audits/assessments. The adequacy of the CAR process is further discussed in Section 1.5 of this report.

Independent Audit Report (IAR) Number	CAR Number
24590-WTP-IAR-QA-02-002	24590-WTP-CAR-QA-02-025
	24590-WTP-CAR-QA-02-027
	24590-WTP-CAR-QA-02-028
	24590-WTP-CAR-QA-02-029
	24590-WTP-CAR-QA-02-030
	24590-WTP-CAR-QA-02-031
	24590-WTP-CAR-QA-02-035
24590-WTP-IAR-QA-02-006	24590-WTP-CAR-QA-02-144
	24590-WTP-CAR-QA-02-154
	24590-WTP-CAR-QA-02-155
	24590-WTP-CAR-QA-02-156
	24590-WTP-CAR-QA-02-159
	24590-WTP-CAR-QA-02-160
24590-WTP-IAR-QA-02-007	24590-WTP-CAR-QA-02-222
	24590-WTP-CAR-QA-02-223
	24590-WTP-CAR-QA-02-224
	24590-WTP-CAR-QA-02-225
	24590-WTP-CAR-QA-02-226

Each CAR was distributed to the management of the audited organization, as required by QA Manual Policy Q-18.1, Section 3.7.6.

Independent Audit/Assessment Responses

The inspectors reviewed the selected independent audit/assessment reports and CARs (see the table above) to confirm the management of the audited organization or activity performed the following activities as applicable:

- Investigated adverse audit findings
- Determined and scheduled corrective action
- Notified the appropriate organization in writing of the actions taken or planned.

Each CAR was investigated, corrective action determined and scheduled, and the appropriate organization was notified, as required by QA Manual Policy Q-18.1, Section 3.9.1.

The inspectors reviewed the three independent audit/assessment reports selected above and the associated CARs (see the table above) to confirm the QA organization had verified the adequacy of corrective actions for conditions adverse to quality. Verification of adequacy of corrective actions had been conducted and documented on each CAR, as required by QA Manual Policy Q-18.1, Section 3.9.2.

Independent Audit/Assessment Records

The inspectors confirmed audit reports and audit plans for the three independent audit/assessment reports selected above had been treated as records by the following methods:

- Reviewing the memorandums distributing the independent audit/assessment reports and audit plans to confirm the Contractor's Project Document Control (PDC) was listed, and
- Observing the independent audit/assessment reports maintained within the Contractor's PDC records management system.

The inspectors determined PDC was listed on the distribution memorandums for the three independent audit/assessment reports selected above. In addition, the inspectors located each report within the Contractor's PDC records management system, as required by QA Manual Policy Q-18.1, Section 5.2.

1.2.3 Conclusions

The inspectors concluded the Contractor's independent audit/assessment procedure was effective, and independent audits/assessments were scheduled, planned, performed, and reported in accordance with the procedure. In addition, the inspectors concluded independent audit/assessment teams were selected in accordance with the procedure, deficiencies identified during the independent audits/assessments were documented in CARs, and independent audit/assessment reports and plans were maintained within the Contractor's records management system.

1.3 Management Assessments (ITP I-103)

1.3.1 Inspection Scope

The inspectors examined the Contractor's procedure and records, and interviewed personnel who had conducted management assessments to determine whether or not the management assessment procedure was adequate and effective. In addition, the inspectors examined records and interviewed personnel to confirm the following requirements from QA Manual Policy Q-18.3, Sections 3.1.1 and 3.1.5 had been achieved during implementation of the management assessment process:

- Management regularly assessed (i.e., at least annually) the adequacy and effective implementation of the Contractor's management processes
- Management identified and corrected problems that hindered the organization from achieving its objectives
- Results of management assessments were documented and distributed to the appropriate management.

1.3.2 Observations and Assessments

The inspectors reviewed procedure 24590-WTP-GPP-MGT-002, Project Management Assessment, dated February 28, 2002, and interviewed the Management Assessment Coordinator. In addition, the inspectors reviewed the gap analysis the Contractor had conducted and provided to the inspection team prior to the inspection. The inspectors determined through the interview with the Management Assessment Coordinator, review of management assessment reports, and review of the gap analysis management assessment were conducted of functional areas and at a lower level by line management within each functional area.

The inspectors reviewed the results of the Contractor's detailed gap analysis³ prior the OSR inspection. The Contractor self-identified the following two deviations from procedure 24590-WTP-GPP-MGT-002:

- Section 3.5.3 - there is no evidence adequacy of resources was evaluated in a number of assessments conducted during 2002
- Section 3.7.11 - there is no evidence proper distribution of the assessments was made for a number of assessments conducted during 2002.

The corrective actions for these two conditions adverse to quality were documented on CAR No. 24590-WTP-CAR-QA-02-274, identified October 28, 2002. The inspectors reviewed the CAR and determined it adequately addressed the conditions adverse to quality identified during the Contractor's gap analysis.

Management Assessments of Functional Areas

The inspectors determined the Contractor complied with the procedure by scheduling and conducting management assessments of the following ten functional areas:

- Business Services
- Engineering
- Operations
- Environmental, Safety & Health
- Quality Assurance
- Procurement
- Construction
- Project Safety Committee
- Project Management
- Employee Concerns Program.

In order to determine whether or not the Contractor's management assessment procedure was effective, the inspectors interviewed the five individuals who had conducted the following management assessments of functional areas:

³ BNI internal memorandum from D. McKenzie to G. Shell, "Transmittal of Gap Analysis Report for Management Assessment Program," CCN 046287, dated November 12, 2002.

- 24590-WTP-MAR-ESH-02-005, RPP-WTP Management Assessment of the Project Safety Committee, March 2002
- 24590-WTP-MAR-C-02-001, Construction Management Assessment Report, Concrete Operations "Rebar Fabrication and Installation," April 2002
- 24590-WTP-MAR-ENG-02-006, Engineering Management Assessment Systems and Projects, June 2002
- 24590-WTP-MAR-OP-02-001, Management Assessment of the Operations Functional Area, July 2002
- 24590-WTP-MAR-MG-02-003, Project-Wide Management Assessment, August/September 2002.

The individuals interviewed stated the procedure was easy to use and the process was useful to identify problems within each organization. In addition, the interviews resulted in the following observations of areas for improvement:

- The procedure could be improved to provide additional clarification on the expectations for depth of review
- Management assessments should be conducted on high risk activities
- Individuals should be encouraged to write Corrective Action Reports on items identified that need improvement.

The inspectors reviewed the management assessment procedure and concurred with the areas of improvement identified by the Contractor's personnel who conducted the management assessments. The inspectors discussed the areas for improvement with the Management Assessment Coordinator who told the inspectors a memorandum addressing each of the areas for improvement listed above had been sent by the Deputy Project Manager to the managers of the functional areas in order to improve the quality of the future management assessments.

The inspectors reviewed the memorandum,⁴ which addressed the following areas: (1) subjects and depth of assessments; (2) development and execution of action items; and (3) procedure revision and management expectations. The purpose of the memorandum was to clarify and emphasize management's expectations for the performance of management assessments. Although the memorandum did not require specific corrective action to be taken on management assessments previously conducted, the inspectors concluded the memorandum adequately addressed each of the above self-identified areas for improvement for future management assessments. The inspectors determined the memorandum and the previously discussed CAR should improve the effectiveness of the management assessment process.

⁴ BNI internal memorandum from J. P. Betts to Distribution, "WTP Management Assessment Program," CCN-042876, dated September 30, 2002.

The inspectors reviewed the following management assessment schedules to confirm management assessments were scheduled for each area during a one-year period:

- 24590-WTP-MAS-MG-01-002, WTP Management Assessment Schedule, Revision 3
- 24590-WTP-MAS-MG-01-002, WTP Management Assessment Schedule, Revision 4
- 24590-WTP-MAS-MG-01-002, WTP Management Assessment Schedule, Revision 5.

The inspectors concluded the scheduling of management assessments of the functional areas was compliant with QA Manual Policy Q-18.3 and the Contractor's management assessment procedure.

The inspectors obtained and reviewed copies of the management assessment reports conducted in 2002 to confirm management assessments had been conducted in each of the Contractor's functional areas. These functional areas included the following:

Number	Functional Area	Month Conducted
1.	Environmental, Safety & Health	January 2002
2.	Project Safety Committee	March 2002
3.	Employee Concerns Program	March/April 2002
4.	Construction	April 2002
5.	Project Management	May/August/September 2002
6.	Engineering	June 2002
7.	Business Services	July 2002
8.	Operations	July 2002
9.	Procurement	August/September 2002
10.	Project Management	September 2002
11.	Quality Assurance	November 2002

The inspectors concluded these functional area management assessments were comprehensive in nature, and provided useful information regarding problems within the respective organization.

Management Assessments by Line Management Within Functional Areas

In addition to the annual management assessments of the functional areas, line management conducted management assessments of their organization. These management assessments conducted by line management were not included on the management assessment schedule. The inspectors reviewed the gap analysis conducted by the Management Assessment Coordinator and confirmed 37 line management assessments had been conducted during the period February 28 through October 15, 2002.

The inspectors reviewed 11 of the 37 management assessments conducted by the Contractor's line management to confirm the following requirements from the QA Manual Policy Q-18.3, Section 3.1.4, were evaluated:

- Adequacy of resources and personnel
- Adequacy of procedure content and coverage
- Effectiveness of procedure implementation were evaluated.

The inspectors reviewed the following management assessments conducted by line management from the Contractor's engineering and PDC organizations:

Number	Report Number	Management Assessment Topic	Month Conducted
1.	24590-BOF-MAR-ENG-02-001	Compliance with ALARA Design Review (ADR) Record Requirements in BOF Plant Design	April/May 2002
2.	24590-WTP-MAR-ENG-02-001	Configuration Management Assessment of Field Change Requests	April 2002
3.	24590-WTP-MAR-ENG-02-004	Engineering Technology Management Assessment - Engineering Process	May 2002
4.	24590-WTP-MAR-ENG-02-006	Engineering Management Assessment Systems and Projects	June 2002
5.	24590-WTP-MAR-ENG-02-007	Engineering Management Assessment Mechanical Group	June 2002
6.	24590-WTP-MAR-ENG-02-008	Engineering Management Assessment Electrical, Control Systems, and HVAC/FP	June 2002
7.	24590-WTP-MAR-PADC-02-001	Annual Assessment of Training Records	May 2002
8.	24590-WTP-MAR-PADC-02-002	Annual Assessment of Employee Concerns Program Records	June 2002
9.	24590-WTP-MAR-PADC-02-003	Project Document Control Sensitive Document Audit	June 2002
10.	24590-WTP-MAR-PADC-02-004	Annual Assessment of Human Resource Records	June 2002
11.	24590-WTP-MAR-PADC-02-005	Annual Assessment of Medical Records	May 2002

The inspectors agreed with conditions adverse to quality identified by the Contractor during the gap analysis.

1.3.3 Conclusions

The Contractor conducted a gap analysis to confirm the management assessment process complied with the QA Manual Policy Q-18.3 and contractual requirements prior to the inspection. During this gap analysis, the Contractor self-identified the following two conditions adverse to quality and documented them on a CAR: 1) there was no evidence adequacy of resources was evaluated in several management assessments; and 2) there was no evidence proper distribution was performed on several management assessments. The inspectors reviewed the gap analysis, the management assessments listed above, and the CAR, and agreed with the actions taken and proposed actions to be taken by the Contractor.

In addition, the Contractor identified the following areas for improvement in the management assessment program to facilitate improved effectiveness: 1) the management assessment procedure could be improved to provide clarification on management's expectations on subjects

for management assessments (i.e., focused on high risk activities) and the depth of the review; and 2) individuals should be encouraged to write CARs on items identified that need improvement. The Contractor's Deputy Project Manager expressed his expectations (see above) for future management assessments via internal memorandum. The inspectors reviewed the memorandum and concluded the direction communicated should help the Contractor's management improve their management assessments of their organizations.

1.4 Incident Investigation and Reporting (ITP I-103)

1.4.1 Inspection Scope

The inspectors examined the Contractor procedure, associated records governing the processing of reportable occurrences and interviewed the staff identified to have primary responsibility for incident investigation and reporting. Incident investigation and reporting is a DOE-mandated process (i.e., DOE O 232.1A, *Occurrence Reporting and Processing of Operations Information* [ORPS]). Contractor compliance with DOE O 232.1A is a requirement of the Contractor's contract (i.e., Contract No. DE-AC27-01RV14136).

1.4.2 Observations and Assessments

The inspectors reviewed the Contractor's list of all occurrence reports generated to date. The Contractor maintained a log of all events submitted for consideration and made appropriate decisions in regard to what should be reported as an Off Normal Occurrence Report. The Contractor had reported twelve Off Normal Occurrence Reports of which five were related to Group 5, Safeguard and Security, which involves determination of "unfit for duty" due to alcohol or drugs. The Contractor stated that they had received permission from DOE to not report this category of occurrences as Off Normal Occurrence Reports in the future. The inspectors examined the following documents and determined they followed Contractor Procedure 24590-WTP-GPP-SIND-001B, *Reporting Occurrences in Accordance with DOE Order 232.1A*:

- RP-BNRP-RPPWTP-2002-0002, Damage to 12,000 Gallon South Water Stand Tower
- RP-BNRP-RPPWTP-2002-0006, Damage to Model LS278H Linkbelt 250 Ton Crawler Crane in the Luffing Configuration
- RP-BNRP-RPPWTP-2002-0010, Environmental Non-Compliance.

The corrective actions for the three identified Off Normal Occurrence Reports were identified, tracked, and closed via the DOE software program associated with the occurrence reports. Each of the three identified reports included a root cause analysis. Due to the limited number of reportable events identified to date, no formal trending had been performed. There had been no management assessments of this area to date but the staff member responsible for occurrence reporting indicated he wanted to evaluate the knowledge and understanding of key staff in the future.

QA staff who perform screening of corrective action reports for potential occurrence reporting had received a briefing during an All Hands Quality Staff Meeting on January 11, 2002. Some Quality Assurance staff had also performed a reading assignment for the subject area. The inspectors interviewed the key QA staff responsible for screening the corrective action reports for potential occurrence reporting. There was a good level understanding of what should be considered for occurrence reporting and staff identified they would use the criteria in the procedure if they were uncertain if something should be included in the occurrence reporting system.

In addition, occurrence reporting is a topic in the new employee staff training. Construction managers, who have the highest likelihood of being involved or being notified of events that should be reported as occurrences, were provided computer-based training. The inspectors reviewed a hard copy of the information that was included in the computer-based training module (i.e., issued on November 11, 2002), and concluded the training to be adequate.

1.4.3 Conclusions

The Contractor's categorization, notification, investigation, and reporting of events was performed in accordance with the requirements of the Contractor's procedure 24590-WTP-GPP-SIND-001B, *Reporting Occurrences in Accordance with DOE Order 232.1A*, and DOE Order 232.1A, *Occurrence Reporting and Processing of Operations Information (ORPS)*.

1.5 Corrective Actions (ITP I-103)

1.5.1 Inspection Scope

The inspectors examined the Contractor procedures and associated corrective action reports that were written to describe conditions adverse to quality, and the inspectors interviewed personnel who were responsible for aspects of writing, reviewing, and monitoring these reports. The inspectors examined the records of corrective actions resulting from independent and management assessments and from compliance audits

1.5.2 Observations and Assessments

The inspectors examined the following CARs to determine if procedure 24590-WTP-GPP-QA-201, *Corrective Action*, was being followed:

CAR Number	Topic
24590-WTP-CAR-QA-02-059	Subcontractor/Vendor Document Submittals
24590-WTP-CAR-QA-02-073	Use of Corrected on the Spot Process in Surveillances
24590-WTP-CAR-QA-02-081	Uncontrolled thermometer used for concrete curing temperatures.
24590-WTP-CAR-QA-02-096	Listed drawings were found at the work area having incorrect revision as identified on the stick.
24590-WTP-CAR-QA-02-102	Codes used for seismic design not on baseline or SDL.

CAR Number	Topic
24590-WTP-CAR-QA-02-113	125 interface control issues remain open with resolution delays.
24590-WTP-CAR-QA-02-121	Interface management documentation fails to provide traceability for design change records.
24590-WTP-CAR-QA-02-160	Loss of Configuration Control
24590-WTP-CAR-QA-02-170	Difference between SIPD and PING Databases
24590-WTP-CAR-QA-02-178	3 Staff signed documents based on what they thought would be done - not what was in the field.
24590-WTP-CAR-QA-02-186	Discrepancies in CS&A calculations.
24590-WTP-CAR-QA-02-239	Unverified assumptions in engineering calculations.
24590-WTP-CAR-QA-02-248	Documentation of noncompliance with WTP QA Manual not being documented at offsite supplier.
24590-WTP-CAR-QA-02-269	Discrepancy in SRD.
24590-WTP-CAR-QA-02-270	Structural Design Criteria not in compliance with SRD.
24590-WTP-CAR-QA-02-271	IT procedures fail to fully implement QA Manual requirements.
24590-WTP-CAR-QA-02-272	Engineering SSCs.
24590-WTP-CAR-QA-02-273	Discrepancies in Design Change Notices
24590-WTP-CAR-QA-02-274	Review of Management Assessments

The inspectors evaluated the CARs listed above to determine if they were:

- Appropriately classified as a routine or significant condition adverse to quality
- Promptly reported
- Corrected in a reasonable amount of time
- Granted extensions in accordance with requirements
- Investigated to determine the extent of noncompliance
- Reported to appropriate levels of management
- Entered into the Quality Assurance Information System (QAIS)
- Reviewed for potential occurrence reporting, PAAA reportability, and potential Stop Work
- Concurred by QA on the planned corrective actions
- Tracked
- Verified for closure.

In addition, the Contractor had conducted a gap analysis (i.e., the Contractor's comparison of their programs with the WTP Safety Regulation Division *Inspection Technical Procedure I-103, Assessment and Corrective Action Assessment*, November 2002) prior to the inspection, and the inspectors reviewed the gap analysis.

The gap analysis identified areas of weakness involving the determination of the extent of condition of noncompliance and the timeliness and implementation of corrective actions. The inspectors examined in-depth the nineteen CARs listed above and agreed with the Contractor's identified areas for improvement. Other than the areas of weakness identified in the Contractor's gap analysis, the inspectors identified no additional areas for improvement. The inspectors determined the CARs were classified appropriately, reported promptly, reported to appropriate management, reviewed for PAAA reportability and stop work, and corrective actions were concurred upon and verified by QA. The inspectors determined extensions (when necessary) were granted in accordance with requirements.

The inspectors confirmed through review of a printout from the QAIS database, the CARs listed above were entered and tracked. The QAIS system captured all information submitted for consideration as a “condition adverse to quality.” Since the system was implemented in May 2002, there had been less than 10 of approximately 150 entries that had been screened out as not significant to quality.

QA Manual Policy Q-18.3, Section 3.1.1, requires “Management shall regularly assess the adequacy and effective implementation of their management processes.” The Contractor had performed self-evaluations of topics that included elements of the corrective action process during the previous twelve months. The self-evaluations included the following:

- Gap Analysis for Office of Safety Regulation *Inspection Technical Procedure I-103, Assessment and Corrective Action Assessment*, (November 2002).
- Line Management Assessment – Review of Corrected on the Spot Application in the QA Surveillance Program, 24590-WTP-MAR-QA-02-002.
- Project Wide Management Assessment Program, 24590-WTP-MAR-MG-02-003, (October 2002).
- Root Cause Analysis for the Corrective Action Report, 24590-WTP-CAR-QA-02-008 (i.e. a failure of the corrective action process that allowed a significant Authorization Basis corrective action to remain open for too long) (March 2002).

Inspectors reviewed each of these reports and concluded the Contractor had a corrective action process that was compliant with the requirements associated with corrective action but held opportunities for improvement in effectiveness. These opportunities for improvement were discussed earlier in this section of this report.

The Contractor took a variety of actions to make improvements in the overall process. These actions included the following:

- Implemented a new improved computer software program, QAIS, for entering, tracking, and analyzing corrective actions. The new improved program is user friendly, provides automatic notification to responsible personnel, including management, allows for better report generation, and is very timely. The program was implemented in May 2002. All previously corrective action reports were included in the database of this program.
- Communicated to all QA personnel that CARs are to be assigned to Functional Managers, not Senior Managers as they were previously, to provide better assurance they will be corrected in a timely manner (March 2002).
- Issued a procedure, 24590-WTP-GPP-MGT-006_0, *Management Oversight*, to clarify roles and responsibilities (March 2002).

- Established the Safety Quality Council to apply additional management attention to ensure that management and supervisory staff understand their accountability for the action or inaction of their personnel (April 2002).
- Implemented a management expectation that current requests for time extensions to CARs must be presented to the Safety Quality Council for approval. October 2002. This is being formalized in revision 4 of the *Corrective Action* procedure, currently under review (November 2002).
- Reanalyzed and standardized the cause codes for previous corrective actions to aid in better trending (August 2002).
- Issued four revisions to 24590-WTP-GPP-QA-201, *Corrective Action* procedure, and 2 revisions to the 24590-WTP-GPP-QA-204, *Quality Trending* procedure to improve the processes during the last twelve months.
- Conducted meetings with QA staff to strengthen knowledge, skill and understanding of expectations (March 2002).

The inspectors reviewed the improvement actions listed above and determined them to be appropriate for improving the overall process.

1.5.3 Conclusions

The Contractor had conducted a gap analysis to confirm the corrective action process complied with the QA Manual Policy Q-16.1 and procedure 24590-WTP-GPP-QA-201 prior to the inspection, in the areas of identification and classification of conditions adverse to quality, notification of appropriate levels of management, and determination and verification of corrective action. Within the gap analysis, the Contractor identified areas of weakness involving the determination of the extent of the condition adverse to quality and the timeliness of implementation of the corrective actions. The Contractor had taken a variety of actions to correct these areas of weakness, including establishing a Safety Quality Council to review requests for extensions in implementation of corrective actions. In addition, the Contractor had taken several other actions to make improvements in the overall corrective action process. The inspectors reviewed the Contractor's gap analysis and the CARs reviewed by the Contractor during the gap analysis, and concluded the Contractor had developed significant corrective actions to improve the corrective action process.

1.6 Significant Conditions Adverse to Quality (ITP I-103)

1.6.1 Inspection Scope

The inspectors examined the Contractor's procedure 24590-WTP-GPP-QA-201, *Correction Action*, and several corrective action reports written to describe significant conditions adverse to quality. The inspectors interviewed personnel who were responsible for aspects of reviewing

and monitoring significant conditions adverse to quality to confirm significant conditions adverse to quality had been identified, cause determined, corrective actions taken, reported to management, and tracked in accordance with QA Manual Policy Q-16.1 and the Contractor's procedure.

1.6.2 Observations and Assessments

The inspectors examined the following corrective action reports and associated root cause analyses for events determined to be significant conditions adverse to quality:

Significant Condition Adverse to Quality	Topic
24590-WTP-CAR-QA-02-008	Untimely Corrective Action
24590-WTP-CAR-QA-02-027	Procurement Procedures Not Adequately Implemented
24590-WTP-CAR-QA-02-089	Sealed Radioactive Source Receipt Unknown
24590-WTP-CAR-QA-02-095/ 24590-WTP-CAR-QA-02-119	Errors in Calculations
24590-WTP-CAR-QA-02-132	NTS Reportable Procurement Weaknesses
24590-WTP-CAR-QA-02-139	Concrete Exceeding 70 Degrees
24590-WTP-CAR-QA-02-252	Design Documents Conflict with PSAR (in process)

The inspectors determined these CARs and corresponding root cause analyses were reported to appropriate levels of management and tracked by the QA organization. QA had reviewed planned corrective actions for each of the CARs reviewed by the inspectors.

The inspectors confirmed a root cause analysis had been performed for each of the first six of the eight significant conditions adverse to quality identified above. The depth and breath of investigation and analysis to support the identification of the root causes improved over time. For example, after two rejected efforts, root cause analysis 24590-WTP-RCA-G-02-002, "Calculation Errors," was issued and it was very well done with thorough causal analysis investigation and a small number of succinct and focused root causes.

The Contractor's Project Manager had made commitments⁵ to DOE to improve the root cause analysis process by providing training and experience opportunities to staff and establishing the Deputy Project Manager as the leader for project-wide application of causal analysis. Corrective actions as a result of significant conditions adverse to quality had been entered into the new QAIS and tracked to closure or remained open with a future due date that was accepted by QA. The Contractor presents all requests for extensions to the Safety Quality Council to improve the timeliness of closure of corrective actions including those for significant conditions adverse to quality.

⁵ BNI letter from R. F. Naventi to R. J. Schepens, ORP, "Hanford Tank Waste Treatment And Immobilization Plant – Construction Authorization Readiness in Consideration of Recent Assessments and Inspections of Engineering Activities," CCN-042775, dated October 30,2002.

1.6.3 Conclusions

The Contractor's gap analysis on the corrective action process discussed in Section 1.5 of this report included the CARs classified as significant conditions adverse to quality. The Contractor identified an area of weakness specific to the significant conditions adverse to quality (i.e., the depth and breadth of root cause investigation and analysis was insufficient). The Contractor had committed to DOE in writing to improve the root cause analysis process through training and experience opportunities to staff and establishing a leader for project-wide application of causal analysis. The inspectors reviewed the Contractor's gap analysis, all CARs classified as significant conditions adverse to quality, and the memorandum from the Contractor to DOE related to root cause analysis, and concluded the Contractor was actively making improvements in this area. The inspectors concluded root cause analysis improved as the corrective actions by the Contractor were implemented.

1.7 Quality Trending (ITP I-103)

1.7.1 Inspection Scope

The inspectors examined the Contractor's process as described in QA Manual Policy Q-16.1, and procedure 24590-WTP-GPP-QA-204, *Quality Trending*, to determine compliance to the requirements. The inspectors reviewed quarterly trending reports, and interviewed responsible staff in order to confirm the Contractor had established criteria for determining adverse quality trends, evaluated conditions adverse to quality to identify adverse quality trends on a quarterly basis, distributed trend evaluations to the Project Manager and the manager of the impacted organization, and reported the trend evaluations to the organization responsible for corrective action.

1.7.2 Observations and Assessments

The inspectors examined the last three of the quarterly reports:

- RPP-WTP Quarterly QA Performance Indicators Fourth Quarter CY2001, CCN-027869
- RPP-WTP Quarterly QA Performance Indicators First Quarter CY2002, CCN-033412
- RPP-WTP Quarterly QA Performance Indicators Second Quarter CY2002, CCN-039066.

The QA Program Manager stated he had determined the current reports are at too high of a level to allow identification of distinct problem areas. To address this concern, several actions were being taken, including the re-categorization of CARs that are tracked in the QAIS to aid in identification of specific problems.

The Contractor had self-identified a decline in timeliness of closing corrective actions. As a result, the Contractor established the Safety Quality Council to review all requests for extensions of corrective action commitment dates. The inspectors' review of the trend analysis reports confirmed the decline. The inspectors interviewed several individuals who had responsibility for closing corrective actions, and confirmed these individuals were aware of the requirement for

requests for extensions to be brought before the Safety Quality Council. The individuals interviewed stated this requirement was a definite deterrent to requesting an extension.

The inspectors reviewed the three quarterly trend reports identified above and confirmed the reports were distributed to appropriate levels of management.

1.7.3 Conclusions

The Contractor's gap analysis on the corrective action process discussed in Section 1.5 of this report included the area of quality trending. The Contractor determined the trends were reported at too high of a level to allow identification of distinct problem areas, and was actively making improvements in this area. The Contractor's improvements included re-categorization of the CARs to allow better identification of specific problems. The inspectors reviewed the gap analysis and several trend reports, and concluded the Contractor had improved in the quality trending process.

In addition, the Contractor identified a trend in the decline in timeliness of implementation of corrective actions and closure of CARs as discussed in Section 1.5 of this report. The Contractor had self-initiated corrective actions to require any requests for extensions to be approved by the Safety Quality Council. The inspectors concluded this corrective action had improved the process.

1.8 Stop Work (ITP I-103)

1.8.1 Inspection Scope

The inspectors reviewed the Contractor's stop work process as described in QA Manual Policy Q-16.2 and procedure 24590-WTP-GPP-QA-206, *Stop Work*, to confirm the QA Manual requirements were included within the procedure. In addition, the inspectors interviewed staff responsible for the formal stop work process to determine the individuals felt comfortable in initiating the stop work process.

1.8.2 Observations and Assessments

The inspectors reviewed the Contractor's procedure for stop work and confirmed it described a formal process initiated by the Project Director for office work and the Construction Manager for site activities. The Contractor's procedure also allowed for the QA Manager to initiate a stop work. The requirements within the stop work procedure were consistent with the requirements within the QA Manual Policy Q-16.2.

Although there have been several instances where the Construction Manager chose to cease work activities for various reasons, the project chose not to follow their stop work process. There have been no formal Stop Work Orders issued by the Project Director, Construction Manager, or the QA Manager to date. The inspectors selected one instance where the Construction Manager

stopped work to determine the process used. The inspectors examined records (e.g., 24590-WTP-CAR-QA-02-139) of the July 2002 work cessation that occurred as a result of concrete poured during high ambient air temperatures. The review indicated the QA organization was aware of work stoppages by the Construction Manager and reviewed the activities leading up to the work cessation event. The inspectors determined the process followed by the Construction Manager was adequate, and agreed a formal stop work order was unnecessary.

The inspectors interviewed the QA Manager to determine if he felt free to initiate a formal Stop Work Order on the project. The QA Manager confirmed he did feel comfortable in doing so if the situation warranted it.

1.8.3 Conclusions

No formal Stop Work Orders had been issued by the QA organization, thus, no conclusions on the stop work process could be drawn. The Contractor's QA Manager expressed no reluctance in initiating a formal Stop Work Order should the situation warrant it.

1.9 Auditor/Lead Auditor Qualifications (ITP I-125)

1.9.1 Inspection Scope

The inspectors reviewed the Contractor's QA Manual Policy Q-02.3 and procedure 24590-WTP-GPP-QA-203, *Auditor/Lead Auditor Training and Qualification*, to determine whether the QA Manual requirements had been adequately incorporated into the procedure. The inspectors reviewed documents and interviewed the Contractor's staff to confirm implementation of the procedure in the following areas: The scope of the inspection included review of auditor qualifications and lead auditor qualifications, including: (1) review of auditor qualifications; (2) lead auditor certification, including communication skills, training, audit participation, examination; and (3) training of technical specialists.

1.9.2 Observations and Assessments

Review of Auditor Qualifications

The inspectors reviewed the auditor qualification documents and training records for a selected group of six auditors and determined they were qualified in accordance with the requirements of QA Manual Policy Q-02.3 and procedure 24590-WTP-GPP-QA-203. The qualification of auditors and lead auditors was the responsibility of the QA Manager or his designee. The personnel selected to perform audits were independent of any direct responsibility for the performance of the activities they audited. The auditors had proficiency in the activity commensurate with the scope, complexity, or special nature of the activities audited.

Lead Auditor Certification

The QA Manager's designee performed and documented an evaluation for each prospective lead auditor's qualification. Once satisfied that all of the qualification requirements had been met, he certified the prospective lead auditor's qualification record. The inspectors determined all lead auditor qualification and certification files documented the evaluation as required by the procedure. Further, the inspectors determined certification requirements for lead auditors were documented using credits as required by the procedure.

- Communication Skills

The inspectors interviewed the Contractor's Assessments Manager and were informed the QA Manager had designated him and his predecessor, in writing, to perform and document an evaluation of each prospective Lead Auditor's written and oral communications skills. Evaluations were documented on the individuals' Qualification and Certification Record. The inspectors reviewed several Qualification and Certification Record forms to confirm the evaluations of written and oral communication skills were included. In addition, the inspectors reviewed one audit report (i.e., 24590-WTP-IAR-QA-02-007, *Internal Audit of Research and Technology*, Revision 0, dated October 16, 2002) and determined the Lead Auditor's writing skills were acceptable. The number of written audit reports available for review was limited to one, because the Lead Auditors selected for review during the inspection were newly qualified and certified.

- Training

The inspectors selected five auditors and reviewed their training profiles to determine if the individuals had been qualified as required by procedure 24590-WTP-GPP-QA-203. The inspectors reviewed training records to confirm QA management had provided indoctrination to prospective lead auditors to ensure the auditors and lead auditors had the following knowledge:

- Knowledge of requirement documents and other related nuclear-related codes, standards, regulatory guides applicable to the work
- General structure of the QA program as a whole, and all applicable requirements delineated in the requirements documents
- Auditing techniques of examining, questioning, evaluating, and reporting, methods of identifying and closing out audit findings
- Organizing, planning, and directing audits of activities affecting quality.

The inspectors determined the auditors had completed the training required by Section 3.4.2 of the procedure, and the Lead Auditors had completed the training required by Section 3.5.1 of the procedure.

The inspectors interviewed the Contractor's QA and training staff to determine records of Lead Auditor Qualification and Certification were submitted to the training department. The

Contractor's procedure 24590-WTP-GPP-QA-203, Section 4.0, "Records," required the records to be sent to PDC and forwarded to the training department. The Contractor's QA staff told the inspectors the qualification and certification records were sent directly to training, and not to PDC as was required by the procedure. When asked to explain the difference between the procedure requirement and implementation, the training department cited memorandum⁶ as a justification for their direct receipt of records from QA. The inspectors reviewed the memorandum and determined it was an inappropriate means to justify procedure noncompliance, and a revision to the procedure was determined to be necessary.

In a meeting on January 7, 2003, the inspectors discussed the need to revise the procedure with the Contractor's QA Manager and QA Program Manager. During this meeting, the QA Manager committed to change the procedure to reflect current implementation practice. The inspectors agreed to this corrective action, and this item will be followed as Inspector Follow-up Item No. A-03-OSR-RPPWTP-004-IFI.

- **Audit Participation**

The inspectors reviewed the selected lead auditor qualification records to confirm they had participated in a minimum of five quality assurance audits, to gain on-the-job experience, within a period of time not to exceed three years prior to the date of qualification and certification, as is required by QA Manual Policy Q-02.3, Section 3.3.4. The inspectors determined these requirements were satisfied.

- **Examination**

The inspectors reviewed the selected lead auditor qualification records to confirm they had completed a lead auditor training course, and passed a proctored examination, as is required by QA Manual Policy Q-02.3, Section 3.3.5. The selected records indicated the lead auditors had taken and passed the proctored examination. In addition to the proctored examination, the Contractor had developed a separate test for prospective lead auditors and required a passing score prior to certification as a lead auditor. The inspectors determined the requirements for examination of lead auditors were adequate.

The inspectors examined the storage area for the Contractor's lead auditor examinations and confirmed the integrity of the examination was maintained as required by QA Manual Policy Q-02.3, Section 3.3.8. The inspectors observed the lead auditor examinations and records and confirmed they were maintained in confidential files in a locked file cabinet as required by QA Manual Policy Q-17.1, Quality Assurance Records. The inspectors determined the requirements for storage of auditor and lead auditor qualification and certification records were adequate.

Training of Technical Specialists

The inspectors interviewed the Contractor's Assessment Manager and reviewed records to determine the technical specialist used on one independent assessment/audit had been

⁶ BNI internal memorandum from G. Hagen to File, "Delegation of Project Document Controls Records Process for the Training Department," CCN-046889, dated November 18, 2002.

indoctrinated to achieve initial proficiency prior to participation in an audit. This documentation satisfied the requirements of the QA Manual Policy Q-02.3 and procedure 24590-WTP-GPP-QA-203.

1.9.3 Conclusions

The Contractor's process for qualifying and certifying auditors and lead auditors was in compliance with the QA Manual and procedure with the exception of the requirement within the procedure to submit qualification and certification records to the PDC for forwarding to the training department. Current practice is the records are not sent to PDC, but are sent directly to the training department. The Contractor's procedure should be changed to reflect current practice. This issue will be followed as Inspector Follow-up Item A-03-OSR-RPPWTP-004-IFI.

1.10 PAAA Program (ITP-128)

1.10.1 Inspection Scope

The inspectors reviewed the Contractor's PAAA Program to confirm the program accomplished the following basic functions:

- General PAAA Program Implementation
- Identification and Screening of Noncompliances
- Evaluation of Noncompliance Tracking System (NTS) Reportability
- Assessments/Quality Improvements
- WTP Contract Requirements.

1.10.2 Observations and Assessments

General PAAA Program Implementation

The inspectors reviewed the Contractor's organization chart dated September 30, 2002, and interviewed the Contractor's PAAA Coordinator. The inspectors determined the following:

- Organizationally, the PAAA Coordinator reported directly to the project QA Manager who reported directly to the Bechtel National, Inc. Corporate QA Manager. The project QA organization was a matrixed organization which reported functionally to the to the WTP Project Director. On matters relating to Quality Assurance, the PAAA Coordinator reported directly to the WTP Project Director. The inspectors determined this reporting mechanism provided adequate authority and independence to make decisions without undue pressure from the line organization.
- The PAAA Coordinator was supported by one PAAA Evaluator to assist in handling PAAA screenings on a day-to-day basis.

The Contractor's PAAA program was formally established and described in procedure 24590-WTP-GPP-QA-101, Price-Anderson Amendments Act Compliance and Reporting, dated February 19, 2002, (i.e., PAAA procedure). The PAAA procedure provided implementing instructions for identifying, evaluating and reporting potential PAAA noncompliances for the WTP. The PAAA procedure described the following:

- Scope of documents to be reviewed for PAAA applicability
- Responsibilities for the PAAA Coordinator and staff, and Project Director
- Establishment and responsibilities of the PAAA Review Board (PRB).

Screening of project documents for PAAA applicability was the responsibility of the PAAA organization. Once an item was determined to be PAAA applicable, the PAAA staff was responsible for determining if an item met the threshold for potential reportability.

The PRB was responsible for making a recommendation to the Project Director on whether a PAAA noncompliance was reportable or not. The PRB consisted of senior contractor managers. This approach of determining reportability demonstrated strong management involvement in the PAAA process. The Project Director was responsible for making the final determination on whether an item was reportable or not. Once an item was determined reportable the PAAA Coordinator was responsible for entering the item in NTS.

Based on the above, the inspectors concluded the PAAA Program was established and implemented by a formal procedure.

PAAA related training was performed at two levels. The first level of training was provided to all project personnel who received indoctrination on the QA Manual. The inspectors reviewed training module 24590-WTP-CRM-TRA-00502, Revision 1, to confirm the level of training provided to all project personnel. The training module provided an overview of the Contractor's QA Manual and the PAAA processes. The inspectors attended a training session provided during the week of the inspection. The training session provided a detailed overview of the quality assurance requirements and described how these requirements were being implemented in multiple project procedures. The PAAA portion of the training module covered the following areas:

- Background information on how PAAA became applicable to DOE contractors
- PAAA Enforceable Rules
- How to prevent PAAA noncompliances
- Nuclear Nexus and how the concept applies to the WTP
- PAAA Noncompliance Reporting and Tracking Process
- Statistics on recent NTS Noncompliance Reporting
- Lessons Learned from recent PAAA Enforcement Action.

The inspectors found the above training module to be adequate for the intended audience and provided line workers with an awareness of the relationship between nuclear safety requirements, promulgated through the QA Manual policies and project procedures, and the WTP PAAA program.

The second level of training was intended for those individuals who required more detailed knowledge of the PAAA process and the PAAA enforceable rules. This training consisted mainly of required reading. The required reading consisted of reading the following procedures:

- 24590-WTP-GPP-QA-101, Price-Anderson Amendments Act Compliance and Reporting
- 24590-WTP-GPP-QA-201, Corrective Action Program.

The inspectors reviewed the training profiles for the PAAA staff and individuals involved with the PRB. The inspectors found the two levels of training were provided to all the voting members of the PRB and the PAAA staff. Non-voting members, as a minimum, received the first level of training. The training requirements, described above, were not covered in the PAAA implementing procedure. This observation was made during the Contractor's March 2002 independent assessment and the inspectors concurred with this observation. The Contractor was in the process of revising the PAAA implementing procedure, and they committed to incorporate the training requirements in the next revision.

The inspectors reviewed Blanket Purchase Order 24590-QL-POA-SS01-00002, Special Condition (SC) 11, Nuclear Safety and Indemnity. Through review of the SC, the inspectors confirmed the scope of PAAA was applicable to activities performed by subcontractors and suppliers for the WTP project.

Identification and Screening of Noncompliances

The inspectors reviewed the PAAA procedure and interviewed the PAAA Coordinator to determine the scope and process used to screen deficient conditions for PAAA applicability. The Contractor's PAAA procedure provides the scope, process, responsibilities, and criteria for screening deficient conditions for PAAA applicability. Section 2 of the procedure, Scope, describes the type of project documents to get screened for applicability. The documents listed included the following:

- Occurrence Reports
- CARs
- Assessments
- Employee suggestions
- Investigation and critiques
- External review reports
- Trending reports.

The inspectors were told the list in the procedure was not intended to be comprehensive. The inspectors agreed with the Contractor's position, however, several additional documents were missing from the list. Examples of missing documents included the following:

- Management Assessments
- Nonconformance Reports (NCRs)
- Employee Concerns
- Defense Nuclear Facilities Safety Board (DNFSB) reviews
- Supplier Deviation Disposition Requests.

The PAAA procedure delineated the responsibility for performing initial screening reviews to the Contractor's PAAA Coordinator and his staff. The PAAA staff screened all source documents and the Contractor did not rely on subject matter experts in determining PAAA applicability. Review of the PAAA staff's background and training indicated they were qualified to perform the screening process.

Evaluation criteria was provided in Appendix C, PAAA Evaluation Guidelines/Criteria. The criteria described in Appendix C directly correlated with the guidance provided in the "Guidance for Identifying, Reporting and Tracking Nuclear Safety Noncompliances (DOE-HBK-1089-95). The inspectors found no evidence that source documents were being screened out based on inappropriate criteria.

During review of the PAAA procedure the inspectors found a couple of non-compliances with the implementation of the procedure. These non-compliances included the following:

- The first non-compliance involved a note following paragraph 3.5.10. The note described a written notification to the DOE PAAA Coordinator when a corrective action due date was extended. The written notification through the QA Manager was not being performed.
- The second non-compliance involved paragraph 3.6.1. The paragraph described a notification of the DOE PAAA Coordinator when a PRB deliberated issue was found to be non-PAAA reportable. The notification described in the above paragraph was not occurring. The inspectors noted the above notifications were not required. The Contractor acknowledged the above and stated they would consider removing the requirements in the next procedure revision.

The Contractor's Correction Action Program (CAP) served as the main source of information for identifying potential PAAA non-compliances. The CAP was described in project procedure 24590-WTP-GPP-QA-201, Corrective Action. A detailed review of the Contractor's corrective action program and significant conditions adverse to quality were discussed in Sections 1.5 and 1.6 of this report.

The procedure described a method for documenting, implementing and verifying corrective actions for conditions adverse to quality or safety and health. Conditions adverse to quality were documented using a CAR, categorized, analyzed, corrected and tracked to closure using the QAIS. The CAP required a root cause determination for all significant CARs.

NTS-reportable PAAA non-compliances were classified as significant conditions adverse to quality, and required root cause analyses in accordance with project procedure 24590-WTP-GPP-QA-205, Root Cause Analysis. The Corrective Action procedure required the QA Manager to ensure all CARs receive a PAAA review in accordance with the PAAA procedure. This requirement was accomplished by electronic notification of the PAAA Coordinator whenever a CAR was initiated.

The inspectors reviewed the documentation of screening reviews performed during the past year. The documentation consisted of a table providing the following information:

- Review date (date screening was performed)
- Document Number (typically CAR number)
- WTP issues (Problem area such as inadequate procedure, procedure compliance, etc.)
- Description of the problem
- Analysis (typically listed which section of the Federal law applied to the issue being screened)
- Comments (analysis by PAAA staff)
- Action (trend, track).

The table was heavily focused on documenting screenings done on the CAR process. The inspectors reviewed the content of the screenings performed over the last six months and documented in the table. All documented screenings were for CARs.

The inspectors did not find documented evidence other documents listed in the PAAA scope statements had been screened by the PAAA staff. The inspectors asked for documentation of screening reviews performed for other source documents. The Contractor provided a second table demonstrating NCRs had been screened during the past year. The NCR table contained the following information:

- Document Number (NCR number)
- Title (title of the NCR)
- PAAA (indicated whether the screening process was complete or not)
- Comment.

The Contractor could not provide documented evidence that other documents listed in the PAAA procedure had been screened for PAAA applicability. The PAAA Coordinator described an “ad hoc” process for screening other documents (besides CARs and NCRs) which relied on reviews of various project databases and reliance on document control to provide copies, to the PAAA Coordinator, of applicable documents as delineated in the scope section of the PAAA procedure. The screening process described above was not documented in the Contractor’s PAAA procedure.

Evidence that other documents were being reviewed by the PAAA staff was provided in the form an NTS report filed as a result of an occurrence report (NTS-RP - BNRP-RRPWTP-2002-0001) and a memorandum (CCN-023667) issued to document control which provided direction for the types of documents that should be forwarded to the PAAA Coordinator for screening review. The attachment to the memorandum provided a substantial list of documents to be reviewed by the PAAA organization. The inspectors found this list of documents complete and should be reflected in the scope statement of the revised PAAA procedure.

The tables described above were not considered formal tracking systems and the project's tracking system for CARs and NCRs did not identify which of those source documents were considered PAAA non-compliances. Additionally, the tables did not provide documented evidence of the judgments made by the PAAA staff to determine whether a source document was or was not a PAAA non-compliance. Therefore, the inspectors were unable to evaluate the Contractor's judgment process.

Based on interviews with the PAAA Coordinator and the review of the tables described above the Contractor did not appear to have a backlog of source documents to evaluate for PAAA applicability.

Evaluation of NTS Reportability

The Contractor's process for reportability was described in the PAAA procedure. Once the PAAA staff had determined a source document to be potentially reportable the PAAA Coordinator convened a meeting of the PRB. The PRB was responsible for making a recommendation to the Project Manager. The Project Manager made the final determination on reportability. The PRB consisted of the following managers:

- Project QA Manager (currently serves as the PRB chairperson (subject matter expert [SME] on 10 CFR 830, Subpart A)
- PAAA Coordinator
- Environmental, Safety and Health Manager (SME on 10 CFR 835, and 10 CFR 830, Subpart B)
- Operations Manager
- Engineering Manager
- Business/Project Controls Manager
- Construction Manager
- Prime Contract Manager
- Employee Concerns Officer.

The PAAA Coordinator was responsible for presenting the pertinent information to the PRB to ensure an appropriate recommendation could be made to the Project Manager. The PRB deliberation resulted in one of the following three outcomes: (1) reportable non-compliance, (2) non-reportable non-compliance, and (3) not a PAAA concern or action.

The results of the PRB's deliberation were documented via Appendix D, Documentation of PAAA Review Board Recommendation, of the PAAA procedure. If an issue was determined to

be reportable the PAAA Coordinator was responsible for filing the report on NTS. The responsible manager for the issue being reported was responsible for ensuring the item was entered in the corrective action program. The manager was also responsible for conducting a root cause analysis and developing a corrective action plan in accordance with project procedures. The PRB was responsible for approving the responsible manager's corrective action plan.

Once the corrective action plan was approved by the PRB, the PAAA Coordinator updated the report on NTS. The above process was described in the Contractor's PAAA procedure and the process was followed for the NTS reports reviewed and discussed below.

The inspectors reviewed the following PRB meeting minutes:

- PRB Meeting Minutes, April 20, 2001, CCN-019716
- PRB Meeting Minutes, January 28, 2002, CCN-027863
- PRB Meeting Minutes, February 14, 2002, CCN-027863
- PRB Meeting Minutes, March 28, 2002, CCN-031187
- PRB Meeting Minutes, May 9, 2002, CCN-033431
- PRB Meeting Minutes, June 11, 2002, CCN-034557
- PRB Meeting Minutes, August 13, 2002, CCN-038527
- PRB Meeting Minutes, October 28, 2002, CCN-045538.

The inspectors determined the meeting minutes were detailed and provided a good summary of the PRB deliberations. The deliberations covered implementation of corrective actions and described the logic for recommending items as PAAA NTS reportable. The minutes were issued in a timely manner.

As of the date of the inspection, the Contractor had submitted four NTS reports. The inspectors reviewed the NTS reports to determine timeliness of reporting and timely completion of corrective actions. Of the four NTS reports reviewed, only one report would have been considered untimely. The first report submitted by the Contractor took over six months to get entered in the NTS report.

The Contractor and the facility were new and the Contractor had some difficulty establishing a facility acronym and also experienced some problems establishing connection with the NTS system. This time frame exceeded the 20-day guidance provide by OE. The remaining three reports were reported within the guidelines. In general, the target completion dates for the corrective actions described in the NTS reports were achieved on or ahead of schedule.

The inspector reviewed the PAAA procedure for conformance with OE guidance in the area of reportability. The inspectors determined the PAAA procedure was inconsistent with the reporting timeframes discussed in the OE guidance. The procedure discussed reporting should not exceed thirty working days. The OE guidance discussed twenty days. This issue was identified in the Contractor's independent assessment, and had not been corrected in the current version of the PAAA procedure.

The OE guidance also discussed a 45-day timeframe for completing a formal investigation/causal analysis from the time a PAAA noncompliance had been identified. The inspector's review of the Contractor's PAAA, Corrective Action, and Root Cause Analysis procedures revealed the timeframe discussed above was not captured in the Contractor's implementing procedures. The Contractor acknowledged the above timeframe had not been captured in their implementing procedures.

Specific trending was not performed on PAAA non-compliances. Trending information provided by the PAAA Coordinator was qualitative in nature and provided as an input to the WTP Quarterly QA Performance Indicator Report. The inspectors reviewed the last two performance indicator reports, and determined the PAAA trend information consisted of complex-wide PAAA activities which did not provide specific data on the project's PAAA activities (e.g., data on the number of source documents reviewed over the last quarter, a breakdown of PAAA vs. non-PAAA source documents, timeliness of reporting). Trending information was mainly performed for CARs and NCRs and this process was governed by project procedure 24590-WTP-GPP-QA-204, *Quality Trending and Analysis*. Detailed discussion of the Contractor's trending process was discussed in Section 1.7 of this report.

The process for conducting root cause analysis was proceduralized and included the following:

- Requirements for training of the Root Cause Analysis (RCA) Team Leader and RCA team members
- Root Cause Process
- Content of the Root Cause Analysis Report
- Verification of the Root Cause Effectiveness.

The inspectors previously reviewed root cause analyses performed for NTS reports NTS-RP - BNRP-RRPWTP-2001-0001 and NTS-RP - BNRP-RRPWTP-2002-0003. Both root cause analyses were found to be of high quality and addressed the issues identified in the report (see Inspection Reports A-03-ORP-RPPWTP-002, Construction Authorization Request Readiness Inspection, and A-03-ORP-RPPWTP-003, As Low As Reasonably Achievable Program Inspection).

Assessments/Quality Improvements

The inspectors reviewed audit report 24590-WTP-IAR-QA-02-003, PAAA Audit, dated March 28, 2002. This independent assessment was performed by three individuals and included two SMEs. The SME are PAAA coordinators, one from the Nevada Test Site and one from Bechtel-Jacobs in Oak Ridge, Tennessee.

The audit report noted strong management involvement in the PAAA process and found the Contractor's staff knowledgeable in quality issues and their applicability to PAAA enforcement. The inspectors determined the audit was comprehensive and provided twenty observations as opportunities for improvement. Through interviews and reviews of documents, the inspectors

determined corrective actions had not been taken for several of the observations. The observations had not been entered in the Contractor's observation tracking system and as a result did not get appropriate management attention.

The inspectors reviewed the following monthly management assessments for the WTP Radiation Protection Program:

- 24590-WTP-MAR-ESH-01-006, November 2001, Assessment of WTP Radiation Protection Program
- 24590-WTP-MAR-ESH-01-008, December 2001, Assessment of WTP Radiation Protection Program
- 24590-WTP-MAR-ESH-02-001, Assessment of WTP Radiation Protection Program, January 2002
- 24590-WTP-MAR-ESH-02-002, Assessment of WTP Radiation Protection Program, February 2002
- 24590-WTP-MAR-ESH-02-004, Assessment of WTP Radiation Protection Program, March 2002
- 24590-WTP-MAR-ESH-02-006, Assessment of WTP Radiation Protection Program, April 2002
- 24590-WTP-MAR-ESH-02-007, Assessment of WTP Radiation Protection Program, May 2002
- 24590-WTP-MAR-ESH-02-014, Assessment of WTP Radiation Protection Program, June 2002
- 24590-WTP-MAR-ESH-02-011, Assessment of WTP Radiation Protection Program, July 2002
- 24590-WTP-MAR-ESH-02-012, Assessment of WTP Radiation Protection Program, August 2002
- 24590-WTP-MAR-ESH-02-017, Assessment of WTP Radiation Protection Program, September 2002.

The inspectors determined the above management assessments to be of high quality and provided coverage of all major 10 CFR 835 areas (subparts) over a three-year period. The same individual performed each of the management assessments listed above. The individual was well qualified. Observations made in management assessments needing action by the Contractor were tracked in the Observations section of the RITS database. As previously stated this section of the report, the Contractor could not provide documented evidence the above reports or the observation database were reviewed and screened for PAAA applicability.

WTP Requirements

The discussion in the above sections of the inspection report demonstrated the Contractor had implemented the requirements of ISMP, Section 2.5. Based on the above, the inspectors concluded the Contractor met contractual requirements related to identifying, reporting, correcting, and tracking PAAA non-compliances. Therefore, no findings were issued for this section of the inspection report.

1.10.3 Conclusions

The inspectors concluded the Contractor met contractual requirements for identifying, reporting, correcting and tracking PAAA non-compliances. The inspectors identified the following positive aspects of the PAAA Program:

- The reporting threshold for the phase of project was appropriate.
- Senior Management was actively involved in the PAAA process.
- PAAA staff and Contractor staff were knowledgeable in quality issues and their applicability to PAAA enforcement.
- The PAAA non-compliance determination and reporting process was structured and was described in a formal project procedure.
- Independent Assessment was performed on the WTP PAAA process.
- PAAA training was provided to all project personnel.
- Root cause analyses performed for the two NTS reports reviewed were of high quality.

The inspectors identified the following opportunities for improvement:

- No objective evidence was provided for all the screenings performed by the PAAA staff (exceptions CARs and NCRs).
- No formal tracking system was being used to identify PAAA non-compliances.
- Corrective Actions for the observations made in the March 2002 independent assessment had not been implemented and did not receive management attention.
- Evidence of screening reviews performed for CARs and NCRs did not provide the logic for determining an item PAAA non-reportable.
- Recommended timeframe for reportability (20 days) discussed in the PAAA procedure was inconsistent with the OE guidance.

- Recommended timeframe for cause analysis (45 days) was not discussed in any of the project procedures.
- Trending performed to date was qualitative in nature and not PAAA-specific.

1.11 Adequacy and Closure of Previous Inspection Items (Inspection Administrative Procedure A-106)

The following inspection follow-up items, which were identified in previous inspection reports, were reviewed to determine if they could be closed. The inspectors verified through records review that the items were appropriately addressed.

(Closed) IR-02-001-01-IFI, "Address lack of timeliness in corrective action and noncompliance with ISMP requirements." This item was identified in Inspection Report IR-02-001, *Assessment and Corrective Action Inspection*, issued in February 2002.

The Contractor responded in a letter dated March 14, 2002.⁷

The inspectors examined the records to confirm the Contractor had:

- Issued a Significant Condition Adverse to Quality, CAR No. 24590-WTP-CAR-QA-02-008, Untimely Corrective Action
- Conducted a root cause analysis, "Root Cause Analysis for Corrective Action Report 245990-WTP-CAR-QA-02-008"
- Modified the software program for entering and tracking CARs to make it mandatory to identify the responsible manager with an automatic electronic notification
- Modified procedure 24590-WTP-GPP-QA-201, *Corrective Action*, to match with the software program for entering and tracking CARS
- Issued procedure 24590-WTP-GPP-MGT-006, *Management Oversight*
- Sent an e-mail notification to QA personnel on March 11, 2002, informing them CARs are to be assigned to Functional Managers and clarifying that original action dates are to be retained when CARs are to be reassigned
- Expectations for processing CARs was reinforced with staff during a QA "All Hands Meeting" on March 22, 2002
- Conducted a follow-on evaluation on March 25, 2002, to confirm all actions had occurred and closed the CAR.

⁷ BNI letter from A. R. Veirup to M. K. Barrett, ORP, "Bechtel National, Inc.'s Response to Assessment and Corrective Action Report, IR-02-001," CCN-028935, dated March 14, 2002.

The Contractor completed all commitments for corrective action. It is recommended this finding be closed.

(Closed) IR-02-002-01-FIN, "PSC needs to perform their annual self-assessment, define reviews required during design and construction, perform reviews and document the completion of review in PSC meeting minutes." This item was identified in Inspection Report IR-02-002, *Safety Integration Assessment*, issued in February 2002.

The Contractor responded in a letter dated March 11, 2002.⁸ The Contractor committed to the following corrective actions:

- Revise procedure 24590-WTP-GPP-SREG-001, "Project Safety Committee," in the following manner:
 - An individual Project Safety Committee (PSC) member will be assigned to each activity and safety-related document identified as a review item for the PSC. The PSC member will be responsible for ensuring assigned items are reviewed by the PSC as required by the procedure. Activities that are not applicable to construction will not have a PSC member assigned at this time.
 - A schedule for PSC review of each item will be included. The schedule will have the review items assigned frequencies of "quarterly" and "as needed," as appropriate. Activities that are not related to construction will not be scheduled at this time.
- Conduct a management assessment of the PSC. This assessment will evaluate both the performance of the PSC against the procedure and the items PSC is reviewing.

The inspectors examined the records indicating the Contractor had completed the following activities:

- Revised procedure 24590-WTP-GPP-SREG-001 to include Appendix A: PSC Oversight Matrix, which describes the activities, responsible manager, and frequency of review. Revision 3 of the procedure was effective 11/04/02.
- Conducted management assessment 24590-WTP-MAS-ESH-02-005 on the PSC February 28, 2002, through March 15, 2002.

The Contractor completed all commitments for corrective action. It is recommended this finding be closed.

⁸ BNI letter from A. R. Veirup to M. K. Barrett, ORP, "Bechtel National, Inc. Response to Safety Integration Assessment Report, IR-02-002," CCN-029862, dated March 11, 2002.

2.0 EXIT MEETING SUMMARY

The inspectors presented preliminary inspection results to members of the Contractor's management at an exit meeting held on November 25, 2002. The Contractor acknowledged the findings, observations, and conclusions presented.

The inspectors asked the Contractor whether any materials examined during the inspection should be considered as limited rights data. No limited rights data were identified.

3.0 REPORT BACKGROUND INFORMATION

3.1 Partial List of Persons Interviewed

D. Berndt, Occurrence Coordinator/Event Reporting
 D. Canazaro, QA Programs Manager
 G. Eaton, Facility Common Training Lead
 M. Ehlinger, Area Quality Assurance Representative
 T. Jenkins, Associate Training Specialist
 H. Kaczmarek, Senior Quality Engineer (Audit Team Leader)
 B. Klinger, QA Assessment Manager
 D. MacKenzie, Management Assessment Coordinator, Operations Support & Integration
 V. McIntyre, PAAA Evaluator
 D. Murphy, PAAA Coordinator
 D. Neal, Senior Quality Assurance Engineer
 J. Rutherford, Senior Quality Engineer (Audit Team Leader)
 G. Shell, QA Manager
 D. Shugars, Senior Engineer, Lead Auditor
 S. Sunday, Quality Engineer (QAIS Database Manager)
 W. Stone, Quality Engineer (QAIS Programmer)
 P. Talmage, Senior Quality Engineer (Audit Team Leader)
 C. Volkman, Senior Quality Engineer
 G. Warner, Quality Engineering Manager
 C. White, Administrative Specialist.

3.2 Inspection Procedures Used

Inspection Technical Procedure I-103, Rev. 3, "Assessment and Corrective Action Assessment"

Inspection Technical Procedure I-125, Rev. 0, "Auditor/Lead Auditor Qualification and Certification Assessment"

Inspection Technical Procedure I-128, Rev. 0, "Price-Anderson Amendments Act (PAAA) Program Assessment"

Inspection Administrative Procedure A-106, Rev. 1, "Verification of Corrective Actions."

3.3 List of Items Opened, Closed, and Discussed

Opened

Number	Type	Description
A-03-OSR-RPPWTP-004-IFI	IFI	Procedure 24590-WTP-GPP-QA-203 required auditor/lead auditor qualification and certification records to be submitted to PDC for forwarding to the training department. The procedure should be changed to reflect current practice, which is the records are not sent to PDC, but are sent directly to the training department.

Closed

Number	Type	Description
IR-02-001-01-FIN	Finding	Address lack of timeliness in corrective action and noncompliance with ISMP requirements.
IR-02-002-01-FIN	Finding	PSC needs to perform their annual self-assessment, define reviews required during design and construction, perform reviews, and document the completion of reviews in PSC meeting minutes.

Discussed

None

3.4 List of Acronyms

BNI	Bechtel National, Inc.
CAR	corrective action report (reporting)
DOE	U.S. Department of Energy
EGS	Enforcement Guidance Supplement
IR	inspection report
ISMP	Integrated Safety Management Plan
ITP	Inspection Technical Procedure
NTS	Noncompliance Tracking System
OE	Office of Enforcement and Investigation
ORP	Office of River Protection
OSR	WTP Safety Regulation Division
PAAA	Price-Anderson Amendments Act
PDC	Project Document Control
POC	point of contact
PRB	PAAA Review Board
PSC	Project Safety Committee
QA	quality assurance

QAIS	Quality Assurance Information System
RCA	root cause analysis
RPP	River Protection Project
SC	Special Condition
SME	subject matter expert
SRD	Safety Requirements Document
WTP	Waste Treatment and Immobilization Plant