U.S. Department of Energy
Office of River Protection
P.O. Box 450
Richland, Washington 99352

03-OSR-0197

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

Dear Mr. Henschel:

CONTRACT NO. DE-AC-01RV14136 – INSPECTION REPORT A-03-OSR-RPPWTP-014 – QUALITY ASSURANCE (QA) ASSESSMENT

This letter forwards the results of the U.S. Department of Energy, Office of River Protection (ORP) inspection of Bechtel National, Inc. (BNI) QA for the Waste Treatment and Immobilization Plant during the period May 12 through 16, 2003. No Findings were identified during this inspection. The inspectors found BNI was adequately implementing its QA program in the areas reviewed. The inspectors identified good practices in the implementation of the Quality Assurance Information System and trend analysis and reporting processes.

The inspectors concluded the BNI QA organization was examining the activities of other BNI line organizations to assure effective QA implementation. ORP recognizes the actions, which are in the early stages of implementation, BNI has taken to improve performance in the area of problem self-identification; however, BNI is encouraged to aggressively monitor the results of these actions to ensure effective accomplishment of this important initiative. Details of the inspection are documented in the enclosed inspection report.

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

Sincerely,

Roy J. Schepens
Manager

OSR:PPC

Enclosure

cc w/encl:
W. R. Spezialetti, BNI

Enclosure
03-OSR-0197
A-03-OSR-RPPWTP-014

U.S. DEPARTMENT OF ENERGY
Office of River Protection

INSPECTION:	Quality Assurance Assessment
REPORT NO:	A-03-OSR-RPPWTP-014
FACILITY:	Bechtel National, Inc.
LOCATION:	2435 Stevens Center Richland, Washington 99352
DATES:	May 12 through 16, 2003
INSPECTORS:	P. Carier, Inspection Lead S. Vega, DOE Inspector D. Kirsch, Consultant L. Gouveia, Consultant
APPROVED BY:	P. Carier, Verification and Confirmation Official WTP Safety Regulation Division

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EXECUTIVE SUMMARY
Quality Assurance (QA) Assessment Inspection Report

INTRODUCTION

This inspection of Bechtel National, Inc. (the Contractor) quality assurance activities covered the following areas:

- Adequacy of the Quality Assurance Management Program and Processes. (Section 1.2)
- Adequacy of Training and Qualification of QA Auditors and Staff. (Section 1.3)
- Adequacy of QA Improvement Initiatives. (Section 1.4)
- Adequacy of QA Work Processes. (Section 1.5)
- Adequacy of QA Oversight and Monitoring of Design Quality. (Section 1.6)
- Adequacy of QA Oversight and Monitoring of the Procurement Program Implementation (Section 1.7)
- Adequacy of QA Oversight and Monitoring of the Inspection and Testing Program. (Section 1.8)
- Adequacy of QA Performance and Monitoring of Independent Assessments and Internal Management Assessments. (Section 1.9)

Significant Observations and Conclusions:

- The Contractor's QA organization reported to an appropriate level within the BNI corporate and Waste Treatment and Immobilization Plant (WTP) Project Management and had sufficient independence and authority to assure effective development and implementation of the Contractor’s QA Program. (Section 1.2)
- The QA organization had been effective in providing guidance to and oversight of the Contractor’s QA Program and had taken an active role in QA indoctrination and training of WTP Project personnel. (Section 1.2)
- The Contractor’s QA organization was effectively implementing its procedure for the training and Qualification of Auditors/Lead Auditors and staff. (Section 1.3)
- The Quality Assurance Information System provides the ability to identify quality requirement sources, translate the implementation of the requirement to a particular procedure, identify areas exhibiting a history of problems for further evaluation, track Corrective Action Reports to resolution, and provide valuable trending information to management. (Section 1.4)

- The Contractor's QA organization had (1) assured the requirements of the Quality Assurance Manual (QAM) were implemented in procedures; (2) performed good quality audits and surveillances to verify the implementation of procedural requirements; (3) assured and verified the specification and completion of corrective actions for identified discrepancies; (4) provided management with meaningful trend assessments and reports; and (5) reviewed problem reports for Price-Anderson Amendments Act reporting and compliance. (Section 1.4)

- The Contractor's project management had instituted systematic initiatives to improve problem self-identification performance; however, it was too early in the program implementation to determine the effectiveness of these initiatives. (Section 1.4)

- The Contractor's QA organization was aggressive in assessing conformance with specified requirements by the line organizations and effecting strong corrective action for identified discrepancies. (Section 1.4)

- The Contractor's QA organization had implemented an effective system for process and approval of administrative and technical documents and had adequately monitored QA program implementation of material handling and storage activities. (Section 1.5)

- The Contractor's QA organization provided extensive oversight and monitoring of the engineering organization work activities and self-improvement process. (Section 1.6)

- The Contractor's engineering organization was closely monitoring the progress of engineering work performance improvement initiatives and had implemented a thorough, detailed self-assessment program, in accordance with management expectations and approved procedures. (Section 1.6)

- The Contractor's QA organization had satisfactorily developed and implemented processes for the evaluation of supplier QA programs. (Section 1.7)

- The QA organization had adequately developed quality requirements for inclusion in procurement documents and had properly reviewed and approved procurement documents. (Section 1.7)

- The Contractor, in accordance with procedures, provided monitoring and oversight of field inspection activities. (Section 1.8)

- The Contractor implemented an effective system for scheduling, planning, conducting and reporting internal management assessments, including the identification and resolution of problems. (Section 1.9)

- The Contractor's QA organization implemented an effective program for the performance of independent assessments using appropriately qualified personnel. (Section 1.9)

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QUALITY ASSURANCE (QA) ASSESSMENT INSPECTION REPORT

1.0 REPORT DETAILS

1.1 Introduction

The River Protection Project Waste Treatment and Immobilization Project (WTP) Contractor, Bechtel National, Inc. (the Contractor) was conducting construction activities at the time of this inspection. The quality-related design, construction, and procurement programs were in-place and implemented. A previous QA assessment (IR-02-010) had been performed during July 2002 and had been oriented toward programmatic verifications. This inspection concentrated on the assessment and verification of performance of QA activities and assessing the effectiveness of the quality assurance organization in performing oversight and monitoring activities of the various Contractor organizations implementing the quality assurance program.

In accordance with the Contract[1] and 10 CFR 830, Subpart A, "Quality Assurance Requirements," the Contractor was required to have a Quality Assurance Manual (QAM) conforming to certain specified requirements. Revision 3 of the Contractor's QAM, dated January 6, 2003, was used as the basis for this inspection.

The inspectors reviewed the Contractor's quality assurance implementing procedures and conducted inspections to determine whether the QA organization was conducting their activities in conformance with the procedure requirements.

Details and conclusions regarding this inspection are described below.

1.2 Adequacy of Quality Assurance Management Program and Processes (ITP I-101)

1.2.1 Inspection Scope

The inspectors examined the management programs and processes of the QA organization for providing direction for the development and implementation of the Contractor's quality assurance program. The inspectors conducted discussions with QA and non-QA personnel and examined documentation of Contractor activities to assess the status and effectiveness of the QA organization in providing guidance to and oversight of the Contractor's quality assurance program to verify conformance with QAM Policy's Q-01.1, Q-02.1 and Q-16.2.

1.2.2 Observations and Assessments

The inspectors examined the applicable QAM Policy, various QA Program implementing procedures and organization charts, the QA Manager's job description and interviewed various QA and non-QA personnel to determine the QA Manager's reporting relationship, authority,

[1] Contract No. DE-AC27-01RV14136 between the U. S. Department of Energy and Bechtel National, Inc., dated December 11, 2000.

responsibility and independence. The inspectors found the QA Manager reported to the BNI Corporate QA Manager for program definition and functionally to the WTP Project Director for project QA matters. The inspectors concluded this reporting relationship provided the QA Manager with direct access to both Corporate and Project management and provided the necessary authority and independence to assure effective implementation and conformance with the Contractor's QA Program.

The inspectors examined the applicable QAM Policy, more than 60 of the QA Program implementing procedures and documents, and interviewed 14 QA and non-QA personnel to determine the effectiveness of the QA Manager in providing guidance and oversight for the development and implementation of the Contractor's QA Program. The responsibilities of the QA Manager, as described by the various procedures reviewed during the inspection, were well defined and provided the QA Manager with adequate opportunity to provide interpretation and guidance in developing and implementing the Contractor's QA Program. Through the review of surveillance reports, internal and supplier audit reports, trend reports, corrective action reports, and other documents reviewed during the inspection, noted throughout this report, the inspectors concluded the QA organization was effective in providing guidance to and oversight of the Contractor's QA Program and it was clear the quality assurance function was well integrated into WTP Project activities. No instances were noted, either procedurally, during the review of documents, or during personnel interviews, which indicated the QA Manager was performing duties unrelated to development and implementation of the Contractor's QA Program for the WTP Project.

To provide a more proactive approach in providing QA guidance to and oversight of project activities, in the time frame since the performance of last U.S. Department of Energy (DOE) QA management inspection, the QA Manager had assigned QA representatives to each of the main WTP construction areas (i.e., Balance of Plant/Laboratory [BOP/Lab], High Level Waste [HLW], Pre-Treatment [PT], and Low Activity Waste [LAW]). The roles and responsibilities for the Area QA Representatives, reporting to the QA Manager, were defined by procedure *(Project QA Organization)*. The Area QA Representatives provided a coordinating role and worked with the Area Project Managers (APM) to facilitate QA reviews and problem resolution in their assigned areas. In addition, the Area QA Representatives participated in the performance of audits and surveillances of their respective areas, conducted under the purview of the QA Audits & Surveillance Manager. Active participation of the representatives was noted in various documents reviewed during the inspection. Interviews with the Area QA Representatives and the APMs for the PT and HLW areas indicated a well functioning relationship between the organizations had been established and QA resources were adequate. Further, it was noted the Area QA Representatives had access to resources from the entire QA organization as necessary to provide specific expertise to resolve issues.

In addition to the more traditional modes of interface and communication by QA within any project, the inspectors noted the QA Manager participated in a number of activities, both project and non-project, affording him the opportunity to broaden the influence of the QA organization. The QA Manager participated in frequent meetings with the DOE Office of River Protection (ORP) to discuss QA Program matters and participated in weekly meetings with the Project Safety Committee and Safety/Quality Council to discuss both quality and safety matters. The latter two activities had been formalized by procedures for Project Safety Committee and

Safety/Quality Council. In addition, the QA Manager indicated he participated in industry activities such as the Tri-City Industrial Development Council, the American Society for Quality, Price-Anderson Amendments Act (PAAA), and National Industry Assessment Committee (NIAC) conferences.

The inspectors examined the applicable QAM Policy, the stop work and corrective action procedures, Corrective Action Reports (CAR), and other documents related to project stop work and work suspension activities, and interviewed QA and non-QA personnel to determine if the QA Manager had the authority to direct work stoppage on nonconforming materials or activities and to release work to proceed when appropriate corrective actions had been completed. The procedures and CARs reviewed during the inspection supported that the QA Manager had the authority to stop and release work. All CARs were screened by the QA organization to determine whether the occurrence was significant enough to warrant stopping work. The screening reviews on the CARs reviewed during the inspection were appropriate. Interviews with the QA Manager determined the QA organization had not issued any stop work orders directly on the WTP Project; however, the QA organization had issued stop work actions on two vendors who provided services to the project. Three work suspensions had been self-imposed by the WTP Project organization. Review of documentation associated with the two vendor stop work actions determined the occurrences were from June 2001 and January 2002 and were not considered recent enough to warrant further investigation during this inspection. Review of the documentation associated with the three self-imposed work suspensions indicated work was suspended in response to the initiation of CARs and the corrective action, including release of work, was adequately controlled through the corrective action process. The WTP Project was developing a new procedure *(Stop Work/Work Suspension)* to provide additional guidance for responding to Stop Work Orders issued by the QA organization and to project management for self-imposed work suspensions. The draft procedure was reviewed during the inspection, found to be consistent with related procedures, and provided adequate guidance in these areas.

The inspectors examined the following: (1) applicable QAM Policy; (2) QA program implementing procedures; (3) new employee QA indoctrination and training module; (4) Employee Training Profiles; and (5) QA audits and a QA surveillance of training. In addition, the inspectors attended a new QA indoctrination training class. The above activities were inspected to determine the level of involvement of the QA Manager in the development of QA indoctrination and training of QA and non-QA personnel and to determine whether the training was appropriately administered to the QA and non-QA personnel associated with the WTP Project.

The requirement for training all WTP Project personnel in "Core" requirements was established by procedure *(Training)*; however, the content of "Core" training was maintained by the Training Department. Review of the "Core" training requirements obtained from the Training Department established there were two "Core" training programs, one for "Regular" personnel and one for "Staff Aug" personnel. In both instances, personnel were required to attend the same QA indoctrination and training classroom-training module, *WTP Project Quality Assurance Program Overview* (QA Training Module). Attendance at this training was required for all personnel (i.e., QA, QC and non-QA personnel) prior to performing work on the WTP Project. The "Core" training requirements and the QA Training Module were maintained by the Training Department; however, administrative controls were in place to obtain the QA Manager's

approval prior to any changes in the "Core" requirements and the QA Training Module. Various methods (e.g., e-mails, memos, document approvals, etc.) were noted to obtain QA Manager approval of changes to these documents and the controls were adequate to prevent elimination of QA indoctrination and training as a "Core" training requirement. In addition, since the QA Training Module was authored and presented by the QA organization, changes could not be effected without concurrence by the QA organization.

The inspectors reviewed the QA Training Module and attended a training class that occurred during the inspection. The training, which was attended by six new or returning workers, took approximately one and one-half hours; one hour was devoted to the QA program and quality assurance and the remaining one-half hour was devoted to the PAAA. The instructor was well qualified, the training material and handouts were appropriate for QA indoctrination training, and the method of presentation resulted in interaction between the attendees and the instructor. The training handouts and presentation emphasized the basis for the quality assurance and PAAA requirements, the QA Program documents, following procedures and stopping work if the procedure could not be followed, stop work and problem identification responsibility, and the importance of adhering to the WTP Project safety practices and performing work in a safe manner.

The inspectors examined the Employee Training Profiles of three people from the QA organization, two people from the QC organization, and six people from non-QA/QC organizations (i.e., Engineering, Construction, APM, Contracts and Acquisition). The inspectors determined all personnel were current in their "Core" training requirements, including QA indoctrination and training, and the "Core" training administered to these people was consistent with the "Core" training list maintained by the Training Department. In addition, applicable re-training requirements were properly identified in the Employee Training Profiles and the administrative controls for determining when re-training was required were adequate.

The inspectors examined a recent QA audit report (exit meeting on February 6, 2003) and a recent QA surveillance report (March 3, 2003) of the Training Organization. The audit was performed to determine the effectiveness of implementation of training procedures and corrective action in response to previously issued CARs in the training area. The audit report indicated the training procedures were adequate and were properly implemented and that corrective action for the CARs was effective. The QA surveillance was performed to review training profiles to determine if procedure training and re-training were properly implemented. The surveillance report noted considerable reduction in the number of overdue training profiles and re-training for procedure revisions was properly controlled. Based on the independent review of training and review of the audit and surveillance reports, the inspectors concluded the QA audit and QA surveillance of the training area were satisfactory.

The inspectors examined the applicable QAM Policy, the current and superceded revisions of the QAM, and the QA Program implementing procedure to determine if the QA Manager had established and was properly implementing controls for the development and maintenance of the QAM. The process for developing and maintaining the QAM had been described in a procedure *(Quality Assurance Manual/Quality Assurance Provisions Document Maintenance)*. This procedure required the QA Manager, the Project Director and the BNI QA Manager approve the QAM and each revision prior to issue. In addition, this procedure required DOE approval be

obtained if the proposed revision reduces the commitments in the QA program requirements previously accepted by the DOE. The appropriate approval signatures were noted on the cover sheet of the current revision of the QAM and DOE noted appropriate approvals for superceded revisions of the QAM as each revision had been processed to DOE. Further, DOE review and analysis of each revision of the QAM had determined there had been no reduction in the QA Program commitments previously accepted by the DOE.

1.2.3 Conclusions

The inspectors concluded:

- A QA organization had been established at an appropriate level within the BNI and WTP Project organizations and the QA organization had sufficient authority and independence to assure proper development and implementation of the Contractor's QA Program.

- The QA organization had properly developed and controlled the QAM and had an effective involvement in the development of procedures implementing the QAM.

- The QA organization had taken proactive steps in establishing Area QA Representatives to provide a coordinated approach to facilitate QA reviews and problem resolution in the main construction areas.

- The QA organization had significant involvement in the development and implementation of the QA indoctrination and training program provided to all personnel working on the WTP Project.

1.3 Adequacy of Training and Qualification of QA Auditors and Staff (ITP I-101)

1.3.1 Inspection Scope

The inspectors examined the performance of the Contractor's QA activities of training and qualification of QA auditors and staff for conformance with the QAM Policy Q-02.3. The inspectors conducted discussions with responsible personnel and examined documentation of Contractor activities to verify implementation of QA requirements and to assess the level of effectiveness of Auditor/Lead Auditor Qualification and Certification activities.

1.3.2 Observations and Assessments

The inspectors examined and verified the Contractor's QA organization had a process in place for performing Auditor/Lead Auditor Qualification and Certification. The inspectors examined objective evidence to confirm auditors, lead auditors, and technical experts were trained and certified as specified by the procedure, WTP-GPP-QA-203, *Auditor/Lead Auditor Training and Qualification*, Revision 2, dated March 1, 2003. The inspectors examined auditor and lead auditor certification records of individuals listed as trained auditors and lead auditors. The

records of three lead auditors (30% sample), and three auditors (50% sample) were examined. The inspectors concluded the records conformed to established requirements. Lead auditor records contained resumes, certifications of completion for contracted training classes, and print outs of in-house classes completed. The inspectors verified the lead auditors and auditors satisfied the minimum experience requirements.

The inspectors observed several of the lead auditors employed by the Contractor had current NQA-1 lead auditor certifications from their previous employers. These individuals received credit for those previous certifications, and were only required to satisfy the re-certification requirements before obtaining new lead auditor certification from the Contractor. This was one of several acceptable industry practices for transferring NQA-1 certification from one company to another; however, the Contractor's procedure was silent in discussing how this type of re-certification was to be applied. The inspectors reviewed three additional lead auditor certifications to verify the Contractor was consistent in applying the practice. The inspectors found the Contractor had consistently applied their process for re-certification of personnel having previous certification.

The inspectors interviewed two lead auditors to assess whether technical specialists received indoctrination and training prior to conducting audit activities. The inspectors found lead auditors understood their responsibility to provide and document training of technical experts. Two methods of documenting technical specialist training were used: indicating in the audit report what training was provided, or filling out an "Audit Team Counseling and Evaluation Form" to document the training. This form was maintained as a training record. Both methods were acceptable for documenting indoctrination and training of technical experts. The inspectors observed the procedure was silent in indicating what documentation or records were required for the training and indoctrination of technical specialists. The inspectors reviewed five audit reports to verify each audit was led by a certified lead auditor, staffed by qualified auditors, and the training of technical experts was documented. No deficiencies were identified.

1.3.3 Conclusions

The inspectors determined the Contractor's QA organization was effectively implementing their procedure for the training and Qualification of Auditor/Lead Auditor and staff.

1.4 Adequacy of QA Improvement Initiatives (ITP I-101)

1.4.1 Inspection Scope

The inspectors examined the Contractor's activities (1) to provide assurance the requirements of the QAM were covered by implementing procedures; (2) to verify the implementation of the procedural requirements; (3) to assure and verify the specification and completion of corrective action for identified discrepancies; (4) to provide management with meaningful trend assessments and reports for use in improving quality performance; and (5) to review problem reports for PAAA reporting and compliance. The inspectors examined procedures,

documentation of activity completion and CAR reports for conformance with the Contractor's QAM, Policies Q-01, 15, and 16.

1.4.2 Observations and Assessments

The inspectors found the Contractor had established a computer based Quality Assurance Information System (QAIS) which provided an extensive QA data base, available to all WTP personnel, containing procedures, forms, training information, among other information. Some of the capabilities of the QAIS included a QAM requirement matrix. The matrix identified all QAM requirements and provided a roadmap to the specific implementing procedures. In addition, the QAIS would identify every QA audit and surveillance that evaluated conformance with each particular QAM and procedure requirement. Further, the QAIS system provided the capability to relate every problem identified by CARs to the particular QAM and procedure requirement violated, although the Contractor had not, as yet, made full use of the capability. The inspectors found the Contractor was continuing to refine and improve the QAIS and the usefulness to project management.

The inspectors examined the QAIS report listing the QAM section, implementing procedure, and associated QA audit/surveillance for the QA manual areas of design control (QAM Section 3), control of special processes (QAM Section 9), test control (QAM Section 11), and inspection, test and operating status (QAM Section 14). The inspectors observed the reports identified several situations, perceived by the QA organization procedure reviewer, wherein some specific sections of the QAM were not readily apparent in the implementing procedure requirements. The inspectors discussed this observation with responsible QA management and, by examination of documentation, found the potential procedure oversights had been referred to the organization owning the procedure to provide either information regarding the location of implementing details or to schedule a revision of the appropriate procedures. The inspectors concluded QA was fully aware of the issues and had taken action to resolve the potential problems. Accordingly, the inspectors concluded QA had performed responsibly in dealing with the issues regarding procedure implementation of QAM requirements.

The inspectors found, based upon review of the above QAIS functional areas, there was clear evidence to (1) provide assurance the QAM requirements were covered by implementing procedures and (2) provide assurance of QA review of line organization implementing procedures, in conformance with the requirements of the procedure for QA review of documents.

The inspectors examined the manner in which QAIS identified and tracked problems identified by audits or surveillances. The inspectors found the QAIS contained, at the time of the inspection, only those CARs generated by QA as a result of audits and surveillances. The CARs generated by the line organizations (i.e.: construction, engineering, and acquisition services) had not yet been included in the QAIS database. Discussions with responsible managers identified QA had plans to include line organization generated CARs in the database; however, the schedule for accomplishment was subject to personnel availability. The QA organization had other means established to track and monitor the line organization generated CARs. Accordingly, the inspectors concluded the relationships of problems (CARs) associated with

particular QAM subsections or procedures did not include the subset of problems identified by organizations other than QA.

The inspectors concluded the QAIS was a significant strength for the QA organization in providing the ability to identify quality requirement sources, translate the implementation of the requirement to a particular procedure, identify areas exhibiting a history of problems for further evaluation, track CARs to resolution, and provide valuable trending information to management.

The inspectors examined the procedure for Corrective Action, 72 open CARS, and a sample (10) of the CARS closed since March 2003. The inspectors found the CARs provided clear descriptions of the problems and clear, appropriate, corrective action responses. In addition, the inspectors verified and concluded QA had approved the line organization's corrective action responses, and verified acceptable completion of the specified corrective actions prior to closing the CARs. The inspectors found each corrective action specified in each CAR had a target date for completion. The individuals responsible for performing the corrective actions were notified electronically about one week before the action was due, one week after the action was due, and, again, two weeks after the due date. If the corrective action was late by three weeks, an electronic notification was provided to the Project Director regarding the chronically delinquent corrective action. Only the Safety/Quality Council (staffed by senior project management representatives) could give target date extension after hearing and agreeing on the need for an extension. The inspectors found the CARs examined conformed to Corrective Action procedure requirements and the Contractor completed corrective actions as specified by the procedure.

The inspectors found the Contractor was in the process of improving the details of problem area definitions on CARS by expanding the applicable process definitions for inclusion on the CAR. Previously, the Contractor had broadly scoped the problem area to which the CAR was applicable. The Contractor had established a much finer definition of potential problem areas; for example, calculations, specifications, drawings, and software control instead of merely engineering. The Contractor planned to assign more details regarding process definitions as the project construction activity increases. The inspectors concluded the planned improvement would enhance the QA organization's trending capability by more directly associating identified problems to the particular problem process and subcontractor.

The inspectors observed, during the review of the open and closed CARs, several CARs identified issues of Design Change Notice/Field Change Request incorporation in design documents. The inspectors examined the Contractor's actions regarding the repetitive situations and found the identified repetitive issues had been recognized by QA and incorporated in a significant CAR (24590-WTP-CAR-QA-03-009, dated January 9, 2003). A root cause evaluation had been completed for the significant CAR. The inspectors examined root cause analysis 24590-WTP-RPT-PADC-03-013, *Root Cause Analysis for Deficiencies Identified in Document Control*, Revision 0, dated April 21, 2003 and concluded the root cause analysis had been a comprehensive assessment of the reasons for the observed deficiencies. The corrective actions were being incorporated into CAR 03-009 for completion and verification.

The inspectors examined trend reports, provided to senior project management, for the 3rd and 4th quarters of 2002 and the 1st quarter of 2003. In addition, the inspectors examined the procedure

for Quality Trending. The inspectors concluded the procedure conformed with and implemented the applicable QAM policies Q-01.1 and Q16.1, regarding trending analysis.

The inspectors observed the trend reports identified a project goal that 80% of conditions adverse to quality within a specific organization be self-identified by that organization. However, the trend reports demonstrated the functional organizations had missed the goal by wide margins, although some improvement had been observed in the Engineering organization during the first quarter 2003. Other than Engineering, the 1st quarter 2003 trend report identified the trend for other organizations' problem self-identification performance was negative. The trend reports had been provided to senior project management with recommendations for corrective action.

The inspectors discussed, with senior Contractor management, the 80% goal for organizations to self-identify the majority of their own problems. The purpose of these discussions was to determine whether management had instituted systematic measures to effect improvement.

The inspectors learned senior Contractor management had recognized the need to improve problem self-identification and taken certain actions. The Project Manager had issued an inter-office letter to second and third level management (dated September 30, 2002) regarding expectations regarding the depth and scope of management assessments. Managers were charged to focus on areas of weakness; improve the depth and thoroughness of assessments; improve the clarity of issue documentation; and focus on timely closure of identified problems. The inspectors concluded senior project management had recognized the need to improve performance in the area of self-identification of problems and instituted expectations for performance improvement.

The Project Manager promulgated a schedule for management assessments (dated December 5, 2002), and reiterated the expectations provided by the September 30, 2002, letter. In addition, the Project Manager had identified several other actions to improve performance in this area. For example: (1) self-identification of problems was added to personnel performance evaluations and used as one attribute to assess performance adequacy and eligibility for monetary awards; (2) all management assessment plans and schedules, for all direct reports, would be approved by the Project Manager; and (3) performance expectations and training would be developed and provided for all personnel. The inspectors examined attendance lists demonstrating the Contractor had instituted initiatives to train all levels of staff in the purpose, function, and use of the corrective actions program and processes. The training had been provided to members of the procurement, construction and engineering staffs and the completion had been monitored and assured by the Contractor's Human Resources organization. The inspectors concluded project management had instituted systematic initiatives to improve performance in this area; however, it was too early in the program implementation to determine the effectiveness of the initiatives.

The inspectors examined several procedures for conformance with the requirements of the procedure for QA review of documents. The Contractor's QA had self-identified the procedures for Corrective Action and Stop Work had been prepared and reviewed for QA concurrence by the same individual, contrary to procedure requirements. The Contractor had documented the discrepancy by CAR 24590-WTP-CAR-QA-03-199, dated April 21, 2003. Corrective actions had been completed to resolve the discrepancy and the CAR was closed. The inspectors

concluded there was ample evidence of substantive reviews of documents by QA (as evidenced by several instances of a broad range of detailed comments), reviewer concurrence with comment resolutions, and QA Manager concurrence with the final procedure.

The inspectors examined documentation to assess whether CARs had been reviewed for PAAA applicability, as required by the Contractor's procedure for Corrective Action. The inspectors selected about 15 closed and open CARs and examined records of the required reviews. The inspectors concluded the reviews had been accomplished and documented, as required.

1.4.3 Conclusions

The inspectors concluded the Contractor had (1) assured the requirements of the Quality Assurance Manual (QAM) were implemented in procedures; (2) performed audits and surveillances to verify the implementation of procedural requirements; (3) assured and verified the specification and completion of corrective actions for identified discrepancies; (4) provided management with meaningful trend assessments and reports for use in improving quality performance; and (5) reviewed problem reports for PAAA reporting and compliance. In addition, the inspectors concluded the QA organization had performed in a high quality manner in all the areas examined, and was proactive and aggressive in assessing conformance with specified requirements by the line organizations and effecting strong corrective action for identified discrepancies.

The inspectors concluded project management had instituted systematic initiatives to improve problem self-identification performance; however, it was too early in the program implementation to determine the effectiveness of the initiatives.

The inspectors concluded the QAIS was a significant strength for the QA organization in providing the ability to identify quality requirement sources, translate the implementation of the requirement to a particular procedure, identify areas exhibiting a history of problems for further evaluation, track CARs to resolution, and provide valuable trending information to management.

1.5 Adequacy of QA Work Processes (ITP I-101)

1.5.1 Inspection Scope

The inspectors examined the QA organization's involvement in the review and approval of documents used to implement the Contractor's QA Program. The inspectors reviewed documentation of Contractor activities and conducted discussions with QA and non-QA personnel to assess the adequacy and effectiveness of QA review and approval of documents implementing the QA Program to verify conformance with QAM Policy's Q-02.4, Q-05.1, Q-09.1, Q-12.1 and Q-12.2.

1.5.2 Observations and Assessments

The inspectors examined the applicable QAM Policies, fourteen Document History Records (DHR), and interviewed QA and non-QA personnel involved in the procedure review and approval process to assess the level of QA involvement in the process. The inspectors found the QA document review and approval process had been documented by procedure *(Quality Assurance Review of Documents)*. The inspectors determined the guidance provided by the procedure was adequate and included requirements for receipt of procedures, logging procedures into the QAIS database, distributing procedures to the appropriate QA reviewer, documenting the performance of procedure reviews on DHRs, resolution of comments, and final approval of the procedure by the QA Manager, or designee. The inspectors reviewed a random sample of fourteen DHRs related to the control of test, inspection, calibration, personnel qualification/certification, surveying, welding, hot work permits, maintenance, and engineering calculations. The inspectors determined the DHRs were properly processed, and when applicable, the review checklists were completed satisfactorily, comments were appropriate and provided to the procedure sponsor, and comments were properly resolved. The inspectors examined several procedures during the performance of this inspection (see Section 3.4 of this report) and the QA Manager or designee had approved all of them.

The inspectors were informed by the QA Manager and the QA Programs Manager that no documents related to installed process instrumentation had been processed for review to date. In addition, the QA Manager and the Quality Engineering Manager indicated a number of readiness reviews had been accomplished. The inspectors examined the readiness review performed for the Limited Construction Authorization Request. The inspectors reviewed documentation associated with this readiness review and noted it was well-planned and documented and included extensive QA involvement since the lead for the readiness review and three other team members were from the QA organization.

The inspectors examined the applicable QAM Policy and QA audits and surveillances to determine the extent of the QA organization's monitoring of handling and storage activities. The inspectors examined a recent internal audit of acquisition services reviewing the WTP Project warehousing activities, including material storage. The inspectors determined the audit was of adequate scope and depth and observed the QA organization had confirmed the performance of monthly surveillances to determine the adequacy of material storage in the Warehouse. The inspectors examined six QA surveillance reports documenting the evaluation of material storage activities at the WTP site. The inspectors concluded QA had satisfactorily evaluated, and the site was adequately performing, material storage activities.

1.5.3 Conclusions

The inspectors concluded the following:

- The Contractor's QA organization had established an effective system for review and approval of administrative and technical documents implementing the requirements of the QAM.

- The Contractor's QA organization had adequately monitored QA program implementation of material handling and storage activities.

1.6 Adequacy of QA Oversight and Monitoring of Design Quality (ITP I-101)

1.6.1 Inspection Scope

The inspectors examined the QA and Engineering activities for oversight and monitoring of the Contractor's initiatives to improve engineering work performance and conformance with QAM established requirements governing the execution of design activities. The inspectors conducted discussions with responsible personnel and examined documentation of Contractor activities to assess the status and progress of engineering improvement initiatives.

1.6.2 Observations and Assessments

Previous ORP inspections in the areas of configuration management (Inspection Report IR-02-007), standards selection (IR-02-013), standards implementation (IR-02-012), and design process implementation (IR-02-015) and Contractor QA assessments had identified problems with the performance of engineering work. The QA assessment, performed by ORP during July 2002 (Inspection Report IR-02-010), concluded QA had adequately implemented their defined responsibilities for design control and software control as defined in QAM Policies Q-03.1 and Q-03.2. Inspections conducted in March 2003 (Inspection Report A-03-OSR-RPP-WTP-011) concluded the Contractor had initiated engineering work performance improvement initiatives; however, the effectiveness of the initiatives was indeterminate because of the early stages of implementation.

The ORP had conducted extensive examinations, recently, of the engineering area and, recognized the Contractor's efforts toward continued improvement of engineering QA implementing procedures. Accordingly, the inspector's examinations of QA activities providing oversight and monitoring of the Contractor's initiatives to improve engineering work performance, during this inspection, were limited to examination of the QA and Engineering efforts to monitor the status of implementation of the improvement initiatives.

The inspectors discussed the progress of engineering work performance improvement initiatives with responsible QA and engineering management. The inspectors examined the plans and actions of QA to monitor the performance of the Engineering organization and the progress on actions taken by engineering to improve performance.

The Contractor's QA organization had performed 70 surveillances of engineering work between March 1, 2003, and May 13, 2003. Of this total, 32 surveillances were performed to verify completion of CAR specified corrective actions for close-out of CARs. The remaining were performed to determine the degree of engineering conformance with established procedures. The inspectors selected and examined a sample of 20 completed surveillances and concluded (1) QA was verifying completion of CAR specified corrective actions, as required by the Corrective Action procedure; (2) QA was proactively examining the degree of engineering conformance

with established procedures; and (3) QA had initiated appropriate corrective actions in response to observed deficiencies. The inspectors examined the QA organization's audit schedule and determined an audit of engineering was scheduled for June 2003. The inspectors concluded QA had accomplished a broad range of surveillance activities to provide real time assessment of engineering performance.

The inspectors examined the Engineering organization's plans and actions taken to improve Engineering work performance by examining self-assessment results and discussing the results with responsible management. The inspectors found Engineering had established an Annual Engineering Assessment Plan and Schedule and examined the plan and schedule. The inspectors concluded (1) the plan provided for a comprehensive assessment of engineering activities across a broad cross-section of areas; (2) the plan focused heavily on known problem areas, as required by the expectations of Project Management; and (3) the plan provided flexibility to accommodate changes deemed necessary due to emerging issues and areas demonstrating good performance.

The inspectors examined the following Engineering assessments: (1) the February 2003 Bimonthly Management Assessment of October 2002 Quality Actions; (2) the Design Change Control Assessment; (3) the assessment of Compliance with ALARA Documentation; and (4) the Nonconformance Report (NCR) Disposition Assessment. The inspectors concluded (1) the February 2003 Bimonthly Assessment examined a broad range of engineering activities and focused on known problem areas, in accordance with Project Manager expectations; (2) the depth of each evaluation was substantial; (3) identified issues were acceptably resolved using established processes; and (4) the assessment provided recommendations for improvement which had been evaluated and implemented, as deemed necessary by Engineering management. Accordingly, the inspectors concluded the Engineering self-assessments were substantial examinations of the subject activities and problems identified were resolved using established processes.

1.6.3 Conclusions

The Contractor's QA organization was providing extensive oversight and monitoring of the engineering organization work activities and self-improvement process and the QA activities had been conducted in accordance with established procedures. The Contractor's engineering organization was closely monitoring the progress of engineering work performance improvement initiatives and had established and implemented a thorough, detailed self-assessment program, in accordance with management expectations and approved procedures.

1.7 Adequacy of QA Oversight and Monitoring of the Procurement Program Implementation (ITP I-101)

1.7.1 Inspection Scope

The inspectors examined the QA organization's effectiveness in evaluation and acceptance of subcontractor and vendor QA programs, the maintenance of the Contractor's approved suppliers

list (ASL), and the development of quality requirements for, and the review of, procurement documents. The inspectors conducted discussions with QA personnel and examined documentation of Contractor activities to assess the adequacy and effectiveness of the QA organization's involvement in the procurement program to verify conformance with QAM Policies Q-01.1, Q-04.1, Q-07.1, and Q-18.1.

1.7.2 Observations and Assessments

The inspectors examined the applicable QAM Policies, the QA program implementing procedure and various supplier qualification documents, such as audits, QAM reviews and annual evaluations, and conducted discussions with QA personnel to determine the QA organization's involvement in the supplier qualification process. The inspectors determined roles and responsibilities for the QA organization relative to supplier qualification were adequately described by procedure *(Supplier Quality Evaluation and Selection)*. This procedure provided for establishing a site wide schedule for external audits, performing audits to evaluate supplier and subcontractor QA programs against contractual requirements, concurring with supplier QA programs, establishing a supplier qualification and re-qualification process, establishing and maintaining an approved suppliers list, and verifying implementation of corrective action for supplier QA program discrepancies. The inspectors determined two methods had been established to portray external audit schedules. The BNI WTP ASL listed suppliers alphabetically and included the schedule for triennial re-qualification audits and annual evaluations while the Supplier Audit/Survey Schedule identified supplier actions chronologically. The inspectors found no inconsistencies between the two schedules.

The inspectors examined supplier qualification documentation for twelve of the 116 suppliers listed on the ASL to verify the ASL had been properly maintained. The inspectors found the content of the ASL had not been maintained consistent with the governing procedure. Audit scope information (i.e., "Full Scope," "Limited Scope," "CGI") had not been listed on the ASL. The inspectors did not consider this information critical to the maintenance or use of the ASL since "Required Baseline" information listed on the ASL provided the specific QA program elements applicable to the supplier's scope of work and was more informative than "Full Scope," or "Limited Scope," etc. The QA organization planned to clarify this situation during the next revision of the procedure.

The inspectors examined the information contained in the ASL and determined the information was accurate. The inspectors verified the ASL properly listed (1) the initial qualification audit used to place the supplier on the ASL or the most recent audit, (2) qualification, triennial re-qualification, and annual evaluation dates, (3) requirements and/or restrictions resulting from the performance of the audit, and (4) the supplier's QAM reference.

The inspectors determined non-WTP QA organization audits (i.e., Bechtel Power and NIAC) had been used to list suppliers on the ASL. The inspectors found the governing procedure allowed this practice, however, the procedure did not provide detailed guidance for performing this activity, such as requiring the third-party audit evaluator to (1) verify the third-party audit scope addressed the appropriate QA program elements for the suppliers intended use on the WTP Project, (2) verify the third-party audit investigated the applicable QA program elements to the

appropriate depth and verify the investigation was supported by sufficient objective evidence, (3) determine if discrepancies in the supplier's QA program were appropriately identified and corrective action was taken to resolve the discrepancies, (4) verify the supplier's QAM evaluated during the third-party audit was the same QAM to be used on the WTP Project, (5) schedule the triennial re-qualification based on the date of the audit and schedule the annual evaluation based on the date of the QA organization evaluation of the audit, and (6) appropriately document the performance of these reviews. The inspectors found the QA organization had developed the "NIAC Assessment Evaluation Form" to control the review and document the evaluation of NIAC third-party audits and NIAC was listed on the ASL to provide a source of third-party audits. The form addressed most of the areas noted above; however, use of the form was limited to NIAC audits. The inspectors found the evaluators of Bechtel Power third-party audits completed an audit checklist to document the review and evaluation of these audits. The inspectors determined, although different methods were used to document the reviews of third-party audits, the evaluations were comprehensive and were sufficient to support placement of the suppliers on the ASL.

The inspectors identified four annual evaluations (AE's) had not been completed as scheduled by the ASL. The QA organization had initiated a CAR (24590-WTP-CAR-QA-03-116, dated May 1, 2003) just prior to the start of the inspection and identified two of the four delinquent AE's and the QA organization fully expected the remaining two would be identified during the extent of condition reviews, still in progress, to be completed during processing of the CAR. In addition, the inspectors found one of the supplier audit reports had not been issued within thirty days of the exit meeting as required by the governing procedure. However, this discrepancy had been self-identified previously by the QA organization in CAR, 24590-WTP-CAR-QA-02-297, dated December 24, 2002.

The inspectors examined the applicable QAM Policies, the QA program implementing procedure, and various documents associated with the procurement of materials or services from four of the twelve suppliers reviewed during evaluation of the maintenance of the ASL. In addition, the inspectors conducted discussions with QA personnel to determine the QA organization's level of involvement in the development of quality requirements for and the review of procurement documents. The inspectors found quality requirements, including accept/reject criteria and quality program, source surveillance/inspection, receipt inspection, and documentation requirements, were contained in procurement documents and were appropriate for the type of procurement. The inspectors found procurement documents contained Supplier Quality Program Data Sheets identifying the QA Program elements addressed by the supplier's QA program. These documents were developed and approved by the QA organization and were used as the basis for qualifying and selecting the supplier for the procurement. In addition, the inspectors found quality requirements included in technical specifications, referenced by and included in procurement documents, added requirements such as document submittals, including the supplier's QA manual, and source inspection and surveillance requirements. The inspectors found the QA organization review of procurement document packages properly documented on Procurement and Subcontracts Internal Routing/Review/Approval Sheets.

1.7.3 Conclusions

The inspectors concluded the following:

- The Contractor's QA Organization had extensive involvement in the evaluation and selection of suppliers for use on the WTP Project.

- The QA organization had developed and implemented satisfactory processes for the evaluation of supplier QA programs and for the administration of the WTP Project ASL.

- The QA organization had developed proper quality requirements for inclusion in procurement documents and had an active role in the review and approval of procurement documents.

1.8 Adequacy of QA Oversight and Monitoring of the Inspection and Testing Program (ITP I-101)

1.8.1 Inspection Scope

The inspectors examined the degree to which the QA organization provided oversight and monitoring of the inspection and testing program. This was done by verifying the requirements of the QAM Policy Q-14.1 were translated into implementing procedures. Additionally, the inspectors reviewed implementation of the QAM requirements to provide oversight of quality affecting activities and monitoring field construction activities.

1.8.2 Observations and Assessments

The inspectors examined the QAIS system and reviewed the report providing a translation of the QAM requirement into implementing procedures. The inspectors found the QAM requirements had been adequately translated into the appropriate procedures for the construction phase of the project. The Contractor had identified certain areas had not been clearly specified in procedures, primarily applicable to the start-up and operations phase of the QA program execution, and was in the process of evaluating the need to have these areas included in procedures applied to the construction phase.

The inspectors observed, during a review of open and closed CARs, several CARs dealt with issues of less than acceptable performance by QC inspectors and Field Engineers. The inspectors examined the Contractors actions to resolve these repetitive situations. The inspectors found the Contractor had identified the repetitive situations and written a CAR (24590-WTP-CAR-QA-03-089, dated April 2, 2003) and classified the issue as significant. A root cause evaluation for the personnel performance issues was in progress. The inspectors concluded QA had performed in a quality manner by identifying the repetitive nature of this issue, elevating the issue to significant CAR status, performing a root cause evaluation to determine comprehensive actions to preclude recurrence.

The inspectors examined an audit of Quality Control performed in December 2002. The audit resulted in two observations and eight recommendations. The inspectors found the audit was an intensive

examination of QC activities and the Contractor had properly classified the issues identified for resolution. The inspectors examined about ten recent surveillance reports regarding QA observation of field QC activities and found these were good evaluations of the surveillance topic and issues had been properly resolved using established processes.

1.8.3 Conclusions

The inspectors concluded the Contractor was providing monitoring and oversight of field inspection activities in accordance with established procedures.

1.9 Adequacy of QA Performance and Monitoring of Independent Assessments and Internal Management Assessments (ITP I-101)

1.9.1 Inspection Scope

The inspectors examined the effectiveness of the Contractor's programs and processes for the performance of internal management assessments and independent assessments of the development and implementation of the Contractor's QA Program. The inspectors conducted discussions with QA and non-QA personnel and examined documentation of Contractor activities to assess the status and adequacy of the Contractor's internal management and independent assessments programs to verify conformance with QAM Policy's Q-01.1, Q-02.3, Q-18.1, Q-18.3.

1.9.2 Observations and Assessments

The inspectors examined the applicable QAM Policies, the QA Program implementing procedure, and various internal management assessment documentation including schedules and reports, and interviewed the Contractor's management assessment coordinator to determine the adequacy and effectiveness of the internal management assessment program. The inspectors determined the requirements for the internal management assessment program had been described in a procedure *(Management Assessment)*. The inspectors found the procedure adequately described the process for scheduling, planning, conducting, documenting, and reporting the results of internal management assessments. The inspectors determined the 2003 internal management assessment schedule had been developed and issued and was being maintained. The inspectors found the schedule required at least one management assessment in each functional area for 2003 and required assessments be performed by both functional area and lower level management personnel. The inspectors determined all internal management assessments scheduled through April 2003 had been completed and reports had been issued for five functional area level management assessments and for nine line area level management assessments.

The inspectors examined the documentation, including reports, checklists, and any related CARs, associated with three functional area management assessments and three line area management assessments conducted in 2003. The inspectors found the content of the reports and the

accompanying checklists satisfactory and consistent with procedure requirements, although the content of the reports and/or checklists were sometimes inconsistent due to the flexibility allowed by the governing procedure. The inspectors determined the problems identified during the performance of the management assessments had been documented and resolved in accordance with the corrective action procedure requirements.

The inspectors found the Contractor had performed a gap analysis of the 2002 internal management assessment program, including the 72 management assessments conducted during that year. The gap analysis resulted in the issuance of a CAR to identify problems with (1) the scope and depth of assessments, (2) non-compliance with procedure requirements, and (3) the reluctance to issue corrective action documents to document problems found during the assessments. The inspectors concluded that corrective action for the CAR was effective in obtaining improvements to the portion of the 2003 management assessment program evaluated during this inspection.

The inspectors examined internal management assessment activities as they pertained to Quality Improvement Initiatives and Oversight and Monitoring of Design Quality and additional discussion of internal management assessments is contained in Sections 1.4.2 and 1.6.2, respectively, of this report.

The inspectors examined the applicable QAM Policies, the QA Program implementing procedures, and various internal independent assessment documentation including schedules and reports, and interviewed the Contractor's independent assessment coordinator to determine the adequacy and effectiveness of the independent assessment program. The inspectors determined the requirements for the independent assessment program had been described in procedure, WTP-GPP-QA-501, *Independent Assessment (Audit),* Revision 1, dated May 12, 2003. The inspectors determined the procedure adequately described the process for scheduling, planning, conducting, and reporting independent assessments.

The inspectors determined through interviews with the independent assessment coordinator an audit schedule for 2003 had been issued and was maintained current. The audit schedule was originally issued in April of 2002 and covered a three-year period. The schedule was maintained current and revised each time an audit was rescheduled or a new audit was added. The inspectors examined the audit schedule to verify all 18 QA program elements were scheduled within a three-year cycle. The inspectors also reviewed the audit schedule to verify independent assessments of the following programs were scheduled at the intervals specified in the individual program requirements: QA program compliance (annually), safety (3 years), radiological protection (2 years), indoctrination and training (annually), and emergency management (annually). The inspectors reviewed 5 audit reports to verify audits were performed according to the schedule. The inspectors concluded the independent assessment schedule was effectively managed and covered the required areas at the proper frequency.

The inspectors reviewed training records and the files for five audits of the 18 audits performed from April 2002 through April 2003 to verify audit planning was performed as required by (1) verifying audit plans were issued 15 days before the audit, (2) verifying audit staff was certified and qualified as auditors and lead auditors, and (3) verifying the audit plan contained the information required by the Contractor's procedure for *Independent Assessment (Audit)*. The

Contractor's procedure required lead auditors to use the form, "Quality Assurance Audit Plan," which contained blocks for all the information specified in the procedure. The inspectors concluded the Contractor had accomplished the audit planning and assured proper training in accordance with procedure requirements.

The inspectors reviewed the files for 5 of the 18 audits performed from April 2002 through April 2003 and verified (1) audit reports contained all the required information, (2) audit reports were issued and sent to project document control (PDC), and (3) CARs were generated for all audit findings. The inspectors also verified the effectiveness of the audit process. To accomplish this, the inspectors (1) reviewed the audit reports to determine if the reported conclusions and findings were supported by the information provided in the checklist, (2) sampled the checklist questions to verify they were appropriate in content and depth, and (3) reviewed 18 CARs generated from the five audit reports for conformance with established requirements. The inspectors also examined the CAR process to verify closure and verification activities were performed as required by the Corrective Action procedure. The inspectors concluded the audits conformed to established requirements, were filed in PDC, and problems had been resolved in accordance with the Corrective Action procedure.

1.9.3 Conclusions

The inspectors concluded the Contractor had established and implemented an effective system for scheduling, planning, conducting and reporting internal management and independent assessments, including the identification and resolution of problems.

2.0 EXIT MEETING SUMMARY

The inspectors presented preliminary inspection results to members of Contractor management at an exit meeting on May 16, 2003. The Contractor acknowledged the observations and conclusions. The inspectors asked the Contractor whether any materials examined during the inspection should be considered limited rights data. The Contractor stated no limited rights data were examined during the inspection.

3.0 REPORT BACKGROUND INFORMATION

3.1 Partial List of Persons Contacted

J. Betts, Deputy Project Manager
D. Canazaro, QA Programs Manager
R. Crisp, HLW Area QA Representative
M. Ehlinger, PT Area QA Representative
T. Hendriks, Training Administrator
W. Klinger, Assessment Manager
R. Lawrence, APM PT Area
D. McKenzie, QA Engineer

D. Murphy, PAAA Coordinator
J. Roth, Manager, Engineering Processes, Procedures and Personnel
J. Rutherford, QA Engineer
P. Schuetz, APM HLW Area
G. Shell, QA Manager
S. Sunday, QA Engineer
K. Vacca, Training Manager
G. Warner, Quality Engineering Manager

3.2 List of Inspection Procedures Used

Inspection Technical Procedure I-101, "Quality Assurance Assessment"

3.3 List of Items Opened, Closed, and Discussed

Opened

None

Discussed

None

3.4 Documents Reviewed

24590-WTP-QAM-QA-01-001, *Quality Assurance Manual*, Revision 3, dated January 6, 2003.

RPP-WTP-Quarterly QA Performance Indicator Report Third Quarter 2002, CCN: 046232.

RPP-WTP Fourth Quarter QA Trend Report and Annual Program Effectiveness Review 2002, CCN: 050245.

RPP-WTP First Quarter 2003 QA Trend Report, CCN: 051178.

Audit Report 24590-WTP-IAR-QA-02-013, *Quality Control*, Revision 0, dated December 30, 2002.

24590-WTP-GPP-QA-204, *Quality Trending*, Revision 2, dated November 18, 2002.

24590-WTP-GPP-QA-207, *Quality Assurance Review of Documents*, Revision 2, dated March 7, 2003.

24590-WTP-GPP-QA-201, *Corrective Action*, Revision 4, dated May 7, 2003.

24590-WTP-GPP-QA-601, *Quality Assurance Surveillance*, Revision 2, dated April 21, 2003.

24590-WTP-GPP-CON-7104, *Nonconformance Reporting and Control*, Revision 2, dated January 2, 2003.

24590-WTP-GPP-QA-205, *Root Cause Analysis*, Revision 0, dated September 28, 2001.

24590-WTP-RPP-PADC-03-013, *Root Cause Analysis for Deficiencies Identified in Document Control*, Revision 0, dated April 21, 2003.

24590-WTP-PL-ENG-03-001, *Annual Engineering Process Assessment Plan and Schedule*, Revision 1, dated March 20, 2003.

24590-WTP-MAR-ENG-03-002, *February, 2003 Bi-Monthly Management Assessment of October, 2002 Quality Actions*, Revision 0, dated March 14, 2003.

24590-WTP-MAR-ENG-03-004, *Design Change Control*, Revision 0, dated April 15, 2003.

24590-WTP-MAR-ENG-03-001, *Compliance with ALARA Documentation Requirements: Project Form 24590-PADC-F00004*, Revision 0, dated February 26, 2003.

24590-WTP-MAR-ENG-03-005, *NCR Disposition Assessment*, Revision 0, dated April 15, 2003.

24590-WTP-GPP-CTRG-002, *Training,* Revision 6, dated February 12, 2003.

24590-WTP-GPP-QA-206, *Stop Work,* Revision 1, dated November 4, 2002.

24590-WTP-GPP-QA-702, *Project QA Organization,* Revision 0, dated March 21, 2003.

24590-WTP-GPP-QA-701, *Quality Assurance Manual/Quality Assurance Provisions Document Maintenance,* Revision 0, dated March 7, 2003.

24590-WTP-GPP-MGT-009, *WTP Project Organization,* Revision 0, dated March 7, 2003.

24590-WTP-GPP-MGT-008, Stop Work/Suspension of Work, Draft Under Review, dated May 30, 2003.

24590-WTP-CRM-TRA-000502, *Training Module: WTP Project Quality Assurance Program Overview,* Revision 1, undated.

24590-WTP-RPT-G-01-002, *Readiness Self Evaluation of Limited Construction Authorization Request Activities,* Revision 0, dated August 15, 2001.

24590-WTP-GPP-SREG-001, *Project Safety Committee,* Revision 4, dated December 17, 2002.

24590-WTP-GPG-MGT-001, *Safety/Quality Council,* Revision 1, dated February 7, 2003.

Job Description, Senior Quality Assurance Manager I & II, Code 164A, dated July 1, 2000.

Audit Report, 24590-WTP-IAR-QA-03-002, *Acquisition Services*, Revision 0, dated March 17, 2003.

Audit Report, 24590-WTP-IAR-QA-02-011, *Project Document Control*, Revision 0, dated November 11, 2002.

Readiness Self Evaluation, 24590-WTP-RPT-G-01-002, *Limited Construction Authorization Request*, Revision 0, dated August 15, 2001.

24590-WTP-GPP-QA-401, *Supplier Quality Evaluation and Selection*, Revision 1, dated January 10, 2003.

24590-WTP-GPP-GPQ-00100, *Supplier Quality*, Revision 3, dated April 4, 2003.

Audit Report, 24590-WTP-IAR-QA-03-004, *QA Program*, Revision 0, dated March 31, 2003.

24590-WTP-GPP-QA-203, *Auditor/Lead Auditor Training and Qualification*, Revision 2, dated March 1, 2003.

24590-WTP-GPP-QA-501, *Independent Assessment (Audit)*, Revision 1, dated May 12, 2003.

24590-WTP-GPP-MGT-002, *Management Assessment*, Revision 2, dated January 10, 2003.

3.5 List of Acronyms

APM	Area Project Manager
ASL	Approved Supplier List
BNI	Bechtel National, Inc.
BOP	Balance of Plant
CAR	Corrective Action Report
DHR	Document History Records
DOE	U.S. Department of Energy
HLW	High Level Waste
IR	Inspection Report
LAW	Low Activity Waste
NCR	Nonconformance Report
ORP	Office of River Protection
PAAA	Price-Anderson Amendment Act
PDC	Project Document Control
PT	Pretreatment
QA	Quality Assurance
QAM	Quality Assurance Manual
QC	Quality Control
WTP	Waste Treatment and Immobilization Plant