



U.S. Department of Energy
Office of River Protection

P.O. Box 450
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01-OSR-0208

Mr. Ron F. Naventi, Project Manager
Bechtel National, Inc.
3000 George Washington Way
Richland, Washington 99352

Dear Mr. Naventi:

CONTRACT NO. DE-AC27-01RV14136 – TRAINING AND QUALIFICATION INSPECTION
AND INSPECTION FOLLOW-UP ITEM REVIEW REPORT, IR-01-001

From May 14-18, 2001, the Office of Safety Regulation (OSR) performed an inspection of the Bechtel National, Inc. (BNI) personnel training and qualification programs. The inspectors also reviewed previous inspection Findings and Follow-up Items for closeout.

The inspectors identified no new Findings. The inspectors concluded that BNI's training and qualification programs complied with the requirements of the Quality Assurance Program and with the commitments both in the Integrated Safety Management Plan and in other parts of the authorization basis. The inspectors observed that the training and qualification programs were implemented adequately and were effective in providing appropriately qualified and certified staff to accomplish the important-to-safety work described in the authorization basis.

Of eleven open items reviewed, the inspectors determined that four could be closed, portions of three could be closed, and four would remain fully open. One new Inspection Follow-up Item was created to track the completion of the plan to revise the procedures program and resolve or disposition the Procedure Challenge Team recommendations and procedure owner input. The inspectors noted that BNI presently plans to complete the plan by October 8, 2001.

Details of the inspection are documented in the enclosed inspection report (Enclosure 1).

Mr. Ron F. Naventi
01-OSR-0208

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If you have any comments concerning the inspection report, you or your staff may contact me or Pat Carrier of my staff, (509) 376-3574.

Nothing in this letter should be construed as changing the Contract, DE-AC27-01RV14136. If, in my capacity as the Safety Regulation Official, I provide any direction that your company believes exceeds my authority or constitutes a change to the Contract, you will immediately notify the Contracting Officer and request clarification prior to complying with the direction.

Sincerely,

Robert C. Barr
Safety Regulation Official
Office of Safety Regulation

OSR:NKH

Enclosure

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

INSPECTION: TRAINING AND QUALIFICATION INSPECTION

REPORT NO: IR-01-001

FACILITY: Bechtel National, Inc.

LOCATION: 3000 George Washington Way
Richland, Washington 99352

DATES: May 14-18, 2001

INSPECTORS: N. Hunemuller (Lead), Senior Regulatory Technical Advisor
J. Adams, Senior Regulatory Technical Advisor
R. Smoter, Consultant
P. Carrier, Verification and Confirmation Official

APPROVED BY: P. Carrier, Verification and Confirmation Official
Office of Safety Regulation

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EXECUTIVE SUMMARY
Training and Qualification Inspection
Inspection Report Number IR-01-001

INTRODUCTION

This inspection of the Bechtel National, Inc. (the Contractor) Training and Qualification Programs covered the following specific areas:

- Staff Qualification (Section 1.2)
- Staff Training (Section 1.3)
- Effectiveness of Training and Qualification Programs (Section 1.4)
- Review of open Inspection Findings and Follow-up Items (Section 1.5).

SIGNIFICANT OBSERVATIONS AND CONCLUSIONS

- The Contractor's training and qualification programs complied with the requirements of the Quality Assurance Program (QAP) and the commitments in the Integrated Safety Management Plan (ISMP), and other commitments in the authorization basis. (Sections 1.2 and 1.3)
- The training and qualification programs were implemented adequately and were effective in providing appropriately qualified and certified staff to accomplish the important-to-safety work described in the authorization basis. (Sections 1.2 and 1.3)

Note: This inspection did not assess radiological controls program (RCP) staff training and qualifications. A separate radiological controls inspection, presently scheduled for October 2001, will be used to assess the RCP staff.

- The training activities reviewed or observed during the inspection were appropriate and adequately implemented for the current project activities. However, the inspectors observed that there was potential for improvement in the area of writing clear and measurable learning objectives and communicating them to the students. (Section 1.3)
- The Contractor's means and mechanisms for the systematic evaluation of training effectiveness were still being developed. However, the Contractor was conducting frequent small-scope, short-duration surveillances that may later provide input for an overall evaluation. (Section 1.4)
- Subcontractor qualification records were not being verified under the same, or similar, procedure as that used for Contractor personnel records. This issue will continue to be followed under Inspection Follow-up System (IFS) open item 01-001-OTH, which was opened as result of ORP/OSR-2001-03, Revision 0, "Evaluation of Bechtel National, Inc. Capability To Change The RPP-WTP Authorization Basis," dated March 19, 2001. (Sections 1.2 and 1.5)

- Of ten open items reviewed, the inspectors determined that four could be closed, portions of three could be closed, and four would remain fully open. One new Inspection Follow-up Item was created to track the completion of the plan to revise the procedures program and resolve or disposition the Procedure Challenge Team recommendations and procedure owner input. The inspectors noted that BNI presently plans to complete the plan by October 8, 2001. (Section 1.5)

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TRAINING AND QUALIFICATION INSPECTION

1.0 REPORT DETAILS

1.1 Introduction

The River Protection Project Waste Treatment Plant (RPP-WTP) was in the preliminary design stage at the time of this inspection. The Contractor (Bechtel National, Inc. [BNI]) was actively in the process of training the staff to continue progress on the design phase of the project.

In accordance with the RPP-WTP Contract (DE-AC27-01RV14136) between DOE and BNI, dated December 11, 2000, and, specifically, 10 CFR 830, Subpart A, "Quality Assurance Requirements," the Contractor was required to have trained and qualified personnel to ensure they are capable of performing their assigned work. This requirement was reflected in the Contractor's authorization bases (such as, the Quality Assurance Program [QAP], BNFL-5193-QAP-01, Revision 8, and Safety Requirements Document [SRD] BNFL-5193-SRD-01, Volume 1 Revision 2 and Volume 2 Revision 4).

The inspectors reviewed the Contractor's training and qualification implementing procedures to determine if they complied with the commitments in the QAP and SRD. In addition, the inspectors assessed the implementation of the Contractor's training and qualification programs as it related to the design phase of the RPP-WTP Contract to verify the Contractor was following its procedures and important-to-safety functions were being properly conducted.

1.2 Staff Qualification (Inspection Technical Procedure (ITP) I-106)

1.2.1 Inspection Scope

The inspectors assessed whether the staff qualification requirements contained in the Contractor's authorization basis (AB) and other commitments had been captured by the Contractor's qualification program procedures and policies. The inspectors assessed whether the Contractor had implemented the staff qualification program required by the AB and associated commitment letters.

1.2.2 Observations and Assessments

1.2.2.1 The inspectors compared the Contractor's requirements for staff qualification described in the Section 2.2 of the Contractor's QAP and commitments made in a letter to the Office of River Protection (ORP)¹ with the Contractor's policies, plans, and procedures to verify compliance to the AB.

Section 2.2 of the QAP stated that the Contractor is committed to the following:

¹BNI letter from R. F. Naventi to M. K. Barrett, ORP, "Contract No. DE-AC-01RV14136-Bechtel National, Inc. (BNI) Proposed Corrective Actions for Concerns Noted by the Office of Safety Regulation During Evaluation of BNI Capacity to Change the RPP-WTP Authorization Basis," CCN 019097, dated March 14, 2001.

- Hire employees with proper educational background (e.g., formal degrees, diplomas, and/or years of experience) to fit established positions
- Verify minimum education and experience or when minimum education and experience cannot be verified, provide documented justification for the personnel assignment
- Ensure that personnel selected to perform work would have the experience and ability to provide the necessary quality performance, as defined by the position description.

In the BNI letter described above, CCN 019097, in the section entitled "Training and Qualification," the Contractor stated:

"The training records review and acceptance process utilized to establish and confirm the recently published *List of Qualified Individuals (LQI) for Important to Safety Work* (LQI-W375-01-0001) will be proceduralized, and the LQI will remain as a project record."

The inspectors reviewed:

- Contractor policy, K20PD001, "Employee Qualifications for Assignment"
- *RPP-WTP Training and Development (T&D) Plan-Design Confirmation Phase*, PL-W375-TR00001
- Procedure, K20P010, Revision 0, Training Procedure
- Employee Selection form, Appendix A to the procedure K20P010
- Desk instruction, "List of Qualified Individuals for Important to Safety Work," K20I001_0

The inspectors found the above documents adequate with one exception. The Training Procedure (K20P010) did not mention the LQI or state that identifying employees for the LQI was the purpose of the review committee (also known as the "Triad") identified in Section 3.2.6 of K20P010. Also, K20P010 did not identify how the qualifications of subcontractors were handled. The inspectors observed that K20I001 was not referenced by K20P010. The inspectors determined that the Contractor's procedural controls, as defined in K13P003F_0, "Production of RPP-WTP Procedures," dated January 25, 2001, did not apply to desk instructions (i.e., no procedural controls applied). Therefore, the inspectors concluded that the desk instruction alone did not meet the commitment contained in CCN 019097 to proceduralize the qualification process for Important to Safety (ITS) activities.

The inspectors concluded that the AB requirements stated above were properly reflected in the Contractor's policies, plans, and implementing procedures. However, the commitment in CCN 019097 to proceduralize the qualification process was not completed. See open item 01-001-OTH in Section 1.5 for follow-up information.

1.2.2.2 The inspectors reviewed implementation of the Contractor's qualification process as discussed in K20P010, Section 3.2, and further detailed in the desk instruction, K20I001, Section 3.0, by doing the following:

- (a) Reviewing records of staff on the LQI
- (b) Reviewing the Contractor's self-assessment program, including deficiency reports (DRs) and recent surveillances
- (c) Interviewing HR, training, and line management on the process of qualification
- (d) Observing the qualification process of the review group.

1.2.2.2 a) Reviewing records of staff on the LQI

The inspectors randomly sampled 16 training records (combination of BNI employees and staff-augment subcontractors) from the current LQI list and reviewed their training and qualification records. The inspectors reviewed: (1) education and experience verification, (2) position descriptions against resumes, (3) training profiles, and (4) documentation of completion of required training. With clarifications provided by the Contractor during the inspection, the inspectors determined that the records of staff on the LQI were adequate.

1.2.2.2 b) Reviewing the Contractor's self-assessment program, including deficiency reports (DRs) and recent surveillances

The inspectors reviewed the results of the Contractor's self-assessment program with respect to staff qualifications. Deficiency Reports, DR-W375-01-QA-00009 and DR-W375-01-QA-00012, with their associated corrective action plans (CAPs), dealt with the issues identified by the OSR evaluation (ORP/OSR-2001-03). At that time, the OSR concluded "there was inadequate substantiation of employee qualifications for personnel identified as qualified to do important-to-safety work."

The inspectors reviewed the May 1, 2001, Contractor printout, "WTP Corrective Actions Assigned to Training," that was provided with the preliminary inspection information. The printout indicated that DR-W375-01-QA-00009 and DR-W375-01-QA-00012 were not closed at the time of the inspection. The inspectors reviewed surveillance reports the Contractor had issued to monitor DR-W375-01-QA-00009 and DR-W375-01-QA-00012. Surveillances SV-W375-01-QA-0003 and SV-W375-01-QA-0008 specifically addressed DR-W375-01-QA-00009 and DR-W375-01-QA-00012, respectively. The inspectors determined the Contractor's self-assessment program, with respect to staff qualifications, was adequate.

1.2.2.2 c) Interviewing HR, training, and line management on the process of qualification

The inspectors interviewed: (1) the Training Manager (TM), (2) the HR Programs Manager, and (3) several line managers to verify the implementation of procedure K20P010, desk instruction K20I0001, and the associated commitments from CCN 019097. The inspectors concluded the TM had effectively verified the training files for BNI and the staff augmentation employees to bring the files into compliance with the AB and commitments. The HR Programs Manager indicated subcontractor education and experience verification was the responsibility of BNI Procurement. Consequently, the inspectors interviewed Procurement personnel to confirm that subcontractor staff qualifications were being verified. The inspectors determined that subcontractor management provided statements of experience and education to Procurement. Procurement stated that, at present, no audit process was in place for the verification of subcontractor records, although the subcontract provided for audit of records if desired. See open item 01-001-OTH in Section 1.5 for follow-up information.

By observing the Triad meeting of May 15, 2001, and asking clarifying questions, the inspectors determined that line managers were actively supporting the Triad meetings to get their personnel qualified. The Triad qualification process was useful in resolving issues and adequately identifying employees for the LQI.

1.2.2.2 d) Observing the qualification process of the review group

The inspectors attended the Triad meeting of May 15, 2001, and observed the following:

- The qualification process committed in CCN 019097 and detailed in K20I0001 was used for the official qualification of personnel for placement on the LQI list
- Desk instruction K20I0001 was the instruction used to implement the qualification process, but this instruction was not subject to procedural controls
- The actual form used to record the qualification signatures was not a part of the desk instruction or any other procedure, but the completed form was considered a record. The informal checklist used to determine the adequacy of the records also was not part of the procedure
- The hiring line managers attending the Triad were not always aware of the methods for establishing documented evidence of education and experience or how equivalencies are established. However, the HR representative provided guidance to the line managers during the meeting.

1.2.3 Conclusions

The requirements for selection of personnel, based on qualification and experience to the position description, and for completion of training for ITS work prior to start of work, as stated in the BNI AB, were properly reflected in the Contractor's policy, the T&D plan, and implementing procedures. The Contractor's qualification program complied with the requirements and commitments in the AB, except as noted below:

The inspectors determined that the Contractor was following its policy via the T&D plan and implementing procedures. The qualification program was implemented and was effective in providing appropriately qualified and certified staff to accomplish the important-to-safety work described in the AB. However, the Training Procedure (K20P010) did not mention the LQI or state that identifying employees for the LQI was the purpose of the review committee identified in Section 3.2.6 of K20P010. Also, K20P010 did not identify how the qualifications of subcontractors were handled. See the discussion of inspection follow-up item 01-001-OTH in Section 1.5 for additional follow-up information regarding this issue.

1.3 Staff Training (ITP I-106)

1.3.1 Inspection Scope

The inspectors assessed whether the Contractor's staff training program met the requirements and commitments of the authorization basis. The inspectors assessed whether the Contractor had implemented the staff training program in accordance with the authorization basis.

1.3.2 Observations and Assessments

The inspectors observed three classroom training sessions: (1) RPP-WTP Project Document Overview, (2) Overview of the RPP-WTP Configuration Management Program, and (3) ALARA [As Low As Reasonably Achievable] Design Training for River Protection Project Waste Treatment Plant Staff. The inspectors also reviewed one computer-based training module: RPP-WTP Project Authorization Basis Maintenance, module AB-0001-03, revision 03B. The training reviewed or observed during the inspection was appropriate and adequately implemented for the current project activities. However, the inspectors observed that there was potential for improvement in the area of writing clear and measurable learning objectives and communicating them to the students. Specifically, the inspectors observed that learning objectives were not provided in the student training materials for the ALARA course held on May 16, 2001. Also, some objectives provided in the Project Document and Configuration Management courses were stated in vague language such as "develop an appreciation" or "understand."

In the three classroom sessions, the inspectors observed that the instructors conducted brief audience analyses or surveys, the instructors were knowledgeable of the subject matter and demonstrated adequate instructional skills, and that there was active student participation. Students were afforded the opportunity to provide feedback, and approximately 85% of the students submitted the voluntary student evaluation forms. The ALARA course and the computer-based training module included student self-graded quizzes as one means for the students to determine if the objectives of the training were accomplished. The computer-based training module also included exercises for the student to perform actual tasks.

Recently, in the February/March "Evaluation of Bechtel National, Inc. Capability to Change the RPP-WTP Authorization Basis" (ORP/OSR-2001-03, dated March 19, 2001), OSR reviewers evaluated attendance rosters, lesson plans, instructor qualifications and evaluations, and student feedback for Bechtel-Washington employee training. The reviewers found that training was recorded as required, defined in subject and scope, presented by qualified instructors, and

documented with attendees' names and the date presented. The inspectors did not specifically review additional records for the purpose of further evaluating the Contractor's training records. However, based upon the recent previous evaluation and the documents reviewed during the course of the inspection, the inspectors concluded that on-site training records were adequate.

1.3.3 Conclusions

The Contractor's training program complied with requirements and commitments and was implemented in accordance with the authorization basis. The training reviewed or observed during the inspection was appropriate and adequately implemented for the current project activities. However, the inspectors observed that there was potential for improvement in the area of writing clear and measurable learning objectives and communicating them to the students.

1.4 Effectiveness of Training and Qualification Programs (ITP I-106)

1.4.1 Inspection Scope

The inspectors reviewed the Contractor's systematic evaluation of training effectiveness required by the authorization basis. The inspectors also reviewed the effectiveness of the qualification program as it related to the Contractor's policy for hiring personnel with the proper educational and experience background required by the respective position descriptions. This review included an examination of the effectiveness of personnel selections to determine if they were commensurate with the scope, complexity, and nature of the activities required for each position.

1.4.2 Observations and Assessments

The inspectors observed that the Contractor had not yet performed a systematic evaluation of training effectiveness. The Contractor's means and mechanisms for the systematic evaluation of training effectiveness were still being developed. However, the Contractor's Quality Assurance organization was periodically assessing the status and effectiveness of the indoctrination and training programs to ensure that they reflected the current systems, procedures, and policies applicable to each position by conducting frequent, small-scope, short-duration, surveillances. When fully developed, the Contractor's systematic evaluation of training effectiveness may consist of an overall evaluation or a series of topical evaluations over a period of time. The Contractor's evaluation will be reviewed as part of the normal scope of the next training and qualification inspection conducted in accordance with ITP I-106, therefore, an Inspection Follow-up Item was not required.

The training observed by the inspectors was focused on project and program overviews and was well-planned and presented. The inspectors reviewed the student evaluation forms submitted for the classroom training and observed that the student feedback was positive. Potential improvement in identifying and communicating learning objectives was noted in Section 1.3 of this report.

As described in Section 1.2 of this inspection report, the Contractor's qualification program was implemented and was effective in providing appropriately qualified and certified staff to

accomplish the important-to-safety work described in the AB, and it complied with the requirements and commitments in the AB.

1.4.3 Conclusions

The training observed was well-planned and presented and student feedback was positive. The training program organization and procedures were adequate for the Contractor's program commitments at the present time. Although the Contractor's means and mechanisms for the systematic evaluation of training effectiveness were still being developed, the Contractor was conducting frequent small-scope, short-duration surveillances that may later provide input for an overall evaluation.

The Contractor's qualification program was implemented and was effective in providing appropriately qualified and certified staff, and it complied with the requirements and commitments in the AB.

1.5 Follow-up on Previously Identified Inspection Items (Inspection Administrative Procedure (IAP) A-106)

1.5.1 Inspection Scope

Selected inspection follow-up items, identified in previous inspection or evaluation reports, were reviewed to determine if they could be closed. The inspectors reviewed the Contractor's commitments provided in its responses to these inspection follow-up items and other information provided. The inspectors verified by work observation, records review, and other means as appropriate, that the corrective actions stated were appropriately completed. When warranted, the inspectors determined: (1) whether the Contractor had conducted an in-depth root-cause analysis (and implemented any appropriate corrective actions such as hardware or design modifications, training, procedure changes, or other actions as appropriate), (2) that generic implications were addressed, and (3) the Contractor's safety management practices and procedures were strengthened, as appropriate, to prevent recurrence.

1.5.2 Observations and Assessments

1.5.2.1 Closed Items

The inspectors determined that the corrective actions for IFS open items IR-99-007-05-FIN, IR-99-007-06-FIN, IR-00-003-02-IFI, and 01-003-OTH were properly implemented and were sufficient to close these items. However, a new Inspection Follow-up Item (IR-01-001-01-IFI), related to 01-003-OTH, was opened as described in the note below. The inspectors concluded that the timeliness of the actions was commensurate with the safety significance of the Findings.

The closed IFS open items concerned the following:

1. IR-99-007-05-FIN: Failure to revise an issued Authorization Basis Change Notice (ABCN) in accordance with requirements of the Quality Assurance Program Implementation Plan (QAPIP).

2. IR-99-007-06-FIN: Some personnel performing authorization basis management activities were not trained and qualified according to commitments in the ISMP.
3. IR-00-003-02-IFI: Review the resolution of DR-W375-99-QA00115 and CAR-W375-00-QA00002
4. 01-003-OTH: The Contractor committed to implement interim measures to ensure procedures did not reference cancelled procedures.

Inspection details for each of these closed items are as follows:

1.5.2.1.1 IR-99-007-05-FIN:

During an inspection performed in October 1999, the OSR reviewed authorization basis change notice record ABCN-W375-99-0044 associated with Revision 2 of the Radiation Protection Program. The OSR determined that the ABCN document was inappropriately modified after being accepted by Project Document Control (PDC). Specifically, changes were made to the ABCN record in a manner inconsistent with Quality Assurance Plan (QAP) Section 4.2.2. Finding IR-99-007-05-FIN was issued to document the issue.

In response to the Finding, the following commitments were made:

OSR Commitment Tracking Number	Commitment Description
99-CMS-051	Properly implement corrections to QA record ABCN-W375-99-0044.
99-CMS-052	Change appropriate project procedures to describe the correct process for correcting documentation errors.
99-CMS-053	Perform an assessment to determine the extent of inappropriate alterations to records.

The inspectors determined that ABCN-W375-99-0044, Revision 1, was issued that included appropriate approval signatures for the earlier changes made to the ABCN record. On this basis, 99-CMS-051 was closed.

The inspectors reviewed project procedure K13P020A_0, "Project Records Management" and determined that Section 3.3.2.2 included specific instructions for making changes to QA records. On this basis, 99-CMS-052 was closed. However, in the course of reviewing the actions taken in response to this Finding, the inspectors observed a potential discrepancy between Section 4.2.2.5 of the QAP and procedure K13P020, "Project Records Management," regarding the appropriate implementation of changes to completed QA records. The Contractor adequately addressed this potential discrepancy by opening action item IR-01-001-01 in the Contractor's Safety and Regulatory Action Tracking System.

The inspectors found that a surveillance had been performed by the Quality Assurance Department to determine the extent of the condition described in Finding IR-99-007-05-FIN. The surveillance was documented in Surveillance Report SV-W375-00-QA00046, "Surveillance of Project Document Control Change Requirements Identified by IR-99-007-05-FIN." The inspectors reviewed the report and determined that 68 QA records filed in PDC were randomly selected and reviewed for unauthorized changes and none were found. The inspectors determined that adequate steps had been taken to determine the extent of the condition described in IR-99-007-05-FIN. On this basis, 99-CMS-053 was closed.

As described above, the inspectors verified that the Contractor's corrective action commitments, made in response to IR-99-007-05-FIN, have been completed. Accordingly, IR-99-007-05-FIN is closed.

1.5.2.1.2 IR-99-007-06-FIN:

During the October 1999 authorization basis maintenance inspection, the OSR found that some project personnel performing authorization basis management activities were not trained and qualified as required by applicable commitments in the Integrated Safety Management Plan (ISMP).

The inspectors found that Project technical personnel received required training on the authorization basis maintenance process. The inspectors evaluated the current status of authorization basis maintenance training on the project and determined that adequate training programs were in place and that project personnel were trained. Accordingly, IR-99-007-06-FIN is closed.

1.5.2.1.3 IR-00-003-02-IFI:

In a letter dated April 5, 2000, the OSR forwarded the results of an inspection performed on the BNFL Inc. personnel training and qualification programs. During this inspection, an Inspection Follow-up Item was opened to track the resolution of the qualification program deficiencies identified during the inspection and documented in inspection report IR-00-003, and also documented by the Contractor's corrective action report (CAR) CAR-W375-00-QA00002, Revision 1, dated October 26, 2000. The inspectors were provided a closure package that showed the above CAR as being closed by CH2M Hill and verified by their QA organization. This was found acceptable by the inspectors.

Even though the CAR was considered closed by CH2M Hill, BNI evaluated the issues raised in the inspection report for applicability to their organization since the inspection item was still considered open by the OSR. BNI evaluated the IFI and presented their corrective actions in a memorandum from P. Karen Vacca to George Shell, dated May 9, 2001 (CCN: 020033). The memorandum outlined the current process being used by BNI to select individuals and to ensure they met minimum education and experience requirements for the position being filled. This process was evaluated during this inspection and is discussed in Section 1.2 of this inspection report. The qualification program was implemented and was effective in providing appropriately qualified and certified staff to accomplish the important-to-safety work described in the AB. Accordingly, IR-00-003-02-IFI is closed.

1.5.2.1.4 01-003-OTH:

In response to ORP/OSR-2001-03, Revision 0, "Evaluation of Bechtel National, Inc. Capability To Change The RPP-WTP Authorization Basis," dated March 19, 2001, the Contractor committed, in CCN 019097, to implement interim measures to ensure procedures did not reference cancelled procedures. The inspectors reviewed the near-term and long-term corrective action commitments listed in CCN 019097 in the paragraph titled, "Procedural Consistency and Accuracy," to verify the completion of the items. These actions were reflected in the CAP for DR-W375-QA-01-00014, Revision 1, dated March 12, 2001.

The inspectors reviewed the following Contractor near-term corrective actions:

1. The Contractor committed that PDC will not allow the issue of any new or revised procedures without a specific reference check.

Based upon interviews with the Document Control Supervisor, the Area Procedures Manager, and the Procedure Lead, the inspectors determined that adequate processes were implemented to preclude invalid references in new or revised procedures. The inspectors considered this action closed.

2. The Contractor committed that all project personnel will receive an e-mail informing them of the procedure issue.

The inspectors verified that an e-mail was distributed to all project personnel informing them of the procedure issue. The inspectors considered this action closed.

3. The Contractor committed that two existing training class briefings will be updated to specifically deal with the issue concerning procedures with cancelled references.

The inspectors reviewed the training class briefings for "RPP-WTP Project Document Overview," and "Quality Assurance." The inspectors concluded that the training class briefings had been updated to deal with procedures with cancelled references. The inspectors considered this action closed.

The inspectors reviewed the following long-term corrective actions:

1. The Contractor committed that all procedure owners will be tasked to review procedures to identify which procedures needed to be revised.

The inspectors reviewed Contractor letter from Lesko to Distribution, "Procedure Review Requirements-Deficiency Report DR-W375-QA-00014, Long Term Corrective Action #1 Closure," CCN 019200, dated March 22, 2001, and Contractor letter from Lesko to Rutherford, "Closure of Long Term Corrective Action #1, Deficiency Report DR-W375-01-QA00014," CCN 019286, dated March 29, 2001. The inspectors also interviewed the Area Procedures Manager and the Procedure Lead to discuss the response to CCN 019200. In CCN 019286, the Area Procedures Manager stated the action was completed

and listed the procedures, which were revised. The inspectors considered this action closed.

2. The Contractor committed that an independent Procedures Challenge Team will be convened and perform an assessment of procedure adequacy.

The inspector reviewed the RPP-WTP Project Procedures Review Team letter from the team (signed by Paul Rice) to R. Naventi, "Review of Project Procedures and Related Processes," dated April 10, 2001, and verified the team had been convened and delivered an assessment report. The inspectors considered this action closed.

3. The Contractor committed that, based on results of the challenge team, a plan will be developed and issued with a schedule.

The inspectors reviewed Contractor Memorandum, CCN 019922, with attachment 1, titled, "Plan for the Implementation of the Project Procedures Review Team Recommendations." The memorandum and attachment provided the plan and schedule referred to in the commitment. The inspectors considered this action closed.

4. The Contractor committed to implement the plan.

The inspectors determined that this commitment was not an interim measures to ensure procedures did not reference cancelled procedures. Notwithstanding, the inspectors observed that the plan addressed the six major areas of the report. However, the inspectors were unable to tie specific challenge team recommendations or procedure owner input to the plan and schedule. In order to provide a tracking mechanism that could be readily correlated with the Contractor's corrective action and self-assessment management tracking systems, a new Inspection Follow-up Item (IR-01-001-01-IFI) was opened. This item will be used to track the completion of the plan to revise the procedures program and resolve or disposition the Procedure Challenge Team recommendations and procedure owner input. The Contractor presently plans to complete the plan by October 8, 2001.

The inspectors considered the Contractor's commitments to implement interim measures to ensure procedures did not reference cancelled procedures closed. Accordingly, 01-003-OTH is closed. However, one new Inspection Follow-up Item was created to track the completion of the plan to revise the procedures program and resolve or disposition the Procedure Challenge Team recommendations and procedure owner input.

1.5.2.2 Partially Closed Items

The inspectors determined that IFS open items IR-99-007-01-FIN, IR-00-002-01-IFI, and 01-004-OTH could not be closed either because not all of the corrective actions were implemented or the corrective actions required verification of their effectiveness. The inspectors concluded that the timeliness of the actions completed was commensurate with the safety significance of the actions.

Partially closed IFS open items IR-99-007-01-FIN, IR-00-002-01-IFI, and 01-004-OTH concerned the following:

1. IR-99-007-01-FIN: Failure to implement a process to ensure that the authorization basis is maintained current with the facility design.
2. IR-00-002-01-IFI: ECP procedure weaknesses.
3. 01-004-OTH: Evaluation (ORP/OSR-2001-03) lists (In Section 8, Conclusions) weaknesses that BNI should correct, and specifies when (In most cases, at the next routine document revision). Also lists open items from CHG transition evaluation.

Inspection details for each of these items are as follows:

1.5.2.2.1 IR-99-007-01-FIN:

Background

In October of 1999 during an assessment of the Contractor's authorization basis management process, OSR inspectors found that the Contractor had failed to implement an effective process that would ensure that the authorization basis was maintained current with the facility design. This was contrary to DOE/RL-96-0006 top-level standard 4.1.3, ISMP Section 3.3.3, and SRD Section 9.0-4, which incorporated ISMP Section 3.3.3 by reference.

As part of an inspection conducted in April 2000, and documented in inspection report IR-00-004, the OSR followed-up on the corrective action commitments to address Finding IR-99-007-01-FIN. On the basis of that inspection, the OSR closed four of nine commitments. The OSR also concluded from that inspection that the progress made by the Contractor on the remaining open corrective actions was consistent with commitments made by the Contractor.

During this inspection, the inspectors followed-up on the following five remaining open commitments made by the Contractor in the revised response to Finding IR-99-007-01-FIN and the corrective action plan associated with Corrective Action Notice (CAN) CAN-2000-01:

OSR Commitment Tracking Number	Commitment Description
00-CMS-003	Make the authorization basis consistent with the current facility design. Specifically, complete actions as necessary to cause the authorization basis to be consistent with the TWRS-P project's April 24 deliverable design documents (i.e., the project "Technical Baseline").
00-CMS-004	Develop new authorization basis management process to ensure that the authorization basis is maintained current with respect to the facility design. This includes: (1) development of new information systems (e.g. Design Criteria Database

	and Design Input Memorandums), (2) revision of engineering and authorization basis management procedures, and (3) development of an ES&H Safety Checklist.
00-CMS-005	Revise authorization basis management training program and conduct training for applicable staff persons.
00-CMS-006	Make improvements that will ensure clear linkages are maintained between design documents and authorization basis management process documents (e.g., ABCN's, safety evaluations, etc.).
00-CMS-008	Conduct QA surveillance to assess effectiveness of corrective actions taken to address the condition identified in Inspection Finding IR-99-007-01-FIN.

1. Commitment 00-CMS-003 – Make the Authorization Basis current with respect to the facility design

In response to Finding IR-007-01-FIN, the Contractor committed to making the authorization current with respect to the WTP facility technical baseline. For the purpose of the corrective action commitment, the Contractor described "current" as either revising the authorization basis to be consistent with the technical baseline or submitting a completed authorization basis amendment request to the OSR requesting approval for conforming changes to the authorization basis.

During OSR inspection IR-00-004, the OSR determined that the Contractor had completed the work associated with updating the authorization basis design information by submitting appropriate authorization basis amendment requests and that commitment 00-CMS-003 would be closed following OSR resolution of the amendment requests. During this inspection, the inspectors verified that the following amendment requests have been resolved:

Submitted under BNFL Letter CCN 012921, dated April 24, 2000

- ABAR-W375-00-00012, Tailor SRD Fire Safety Criteria and Associated Implementing Standards
- ABAR-W375-00-00013, Changes to the Process Safety Management Program
- ABAR-W375-00-00015, Codes & Standards Update – Design/Authorization Alignment
- ABAR-W375-00-00016, ANSI N13.1 Version Change
- ABAR-W375-00-00018, Clarification of Commitments in ISMP, Sections 3.7 and 3.9.2.

Submitted under BNFL Letter CCN 012864, dated April 23, 2000

- ABAR-W375-00-00014, Part A HAR Significant and Bounding Hazard Evaluation.

On this basis, CMS item 00-CMS-003 was closed.

2. Commitment 00-CMS-004 – Develop and Implement Improvements in the Authorization Basis Maintenance Process

In response to Finding IR-99-007-01-FIN, the Contractor committed to developing and implementing a process that would ensure the authorization basis was maintained current following the update effort described above for 00-CMS-003. Specifically the Contractor committed to the development of new information systems, modified procedures related to the authorization basis maintenance process, and an ES&H safety checklist to be used in the design document review process.

During OSR inspection IR-00-004, the OSR reviewed project information systems (e.g., the Design Criteria Database, Design Input Memorandum, etc) and procedures associated with the authorization basis maintenance process. Based on these reviews, the inspectors determined that the Contractor had developed an improved authorization basis maintenance process; however, the procedures implementing the process had not yet been approved. During this inspection, the inspectors verified that the process was implemented with the approval of the following procedure revisions:

- K70P528, "Authorization Basis Maintenance," Revision 2, dated June 2, 2000
- K13C003, "Code of Practice for the Production of Process-Based Procedures," Revision B_1, dated June 2, 2000
- K70P577, "Design Inputs," Revision 2, dated June 2, 2000
- K70P551, "Drawings and Sketches: Preparation, Checking, and Approval," Revision 2, dated June 2, 2000
- K13C023, "Code of Practice for the Internal Review and Approval of Documents," Revision 3, dated June 2, 2000.

The inspectors also verified that the Contractor had implemented an "ES&H safety checklist" as part of a new procedure, K70G505, "Environmental, Safety, and Health Review of Documents," Revision 0, dated October 30, 2000.

On this basis, CMS item 00-CMS-004 was closed.

3. Commitment 00-CMS-005 - Revise and Conduct Authorization Maintenance Process Training

In response to Finding IR-99-007-01-FIN, the Contractor committed to developing and conducting improved training on the authorization basis maintenance process.

The inspectors found that the Contractor had developed two training courses that are directly related to the authorization basis maintenance process. The first addressed the use of the Design Criteria Database (DCD) and process for developing Design Input Memoranda (DIMs). This training course was identified as DIM-DCD-0001-01 and was approved. The second training course addressed the authorization basis maintenance process and related document review and approval processes. The course was identified as AB-0001-03 and was approved. An inspector took a computer-based version of the AB-0001-03 course and determined that the training was thorough and of high quality.

The inspectors reviewed AB-0001-03 training records and determined that project management, engineering, and ES&H personnel received training on the new authorization basis management process shortly before or after the approval of the set of procedures identified above for 00-CMS-004.

The inspectors reviewed training requirements for new management, engineering, and ES&H personnel as specified in PL-W375-TR00001, Revision 2, "River Protection Project – Waste Treatment Plant Training and Development Plan – Design Conformation Phase," and information in RPP Employee Training Database and determined that authorization basis maintenance training was required for all project technical personnel.

On this basis, CMS item 00-CMS-005 was closed.

4. Commitment 00-CMS-006 – Make Improvements in Authorization Basis Maintenance Document Tracking

During the October 1999 authorization basis inspection, the inspectors noted that it was difficult to identify what documents associated with the authorization basis maintenance process (e.g., safety evaluations, Authorization Basis Amendment Requests (ABARs), etc.) were outstanding against specific project design documents and the status of these documents. This issue was described in inspection report IR-99-007. In response to Finding IR-99-007-01-FIN, the Contractor committed to making improvements to document tracking that would address this issue.

The inspectors interviewed ES&H staff and determined that the Contractor had developed a database to track the relationship between authorization basis maintenance process documentation and design documentation. The inspectors noted that the documentation problems described in the October 1999 inspection were due, in part, to the number of different types of documents associated with the authorization basis maintenance process and how they were separately controlled and filed. Since that time, these documents have been consolidated into a single "Authorization Basis Change Notice" document. This approach eliminated much of the cause for the problem described in October 1999 inspection report.

On this basis, CMS item 00-CMS-006 was closed.

5. Commitment 00-CMS-008 – Conduct QA Surveillance of Revised Authorization Basis Maintenance Process

In response to Finding IR-99-007-01-FIN, the Contractor committed to performing a QA assessment to determine the effectiveness of the revised authorization maintenance process described above for 00-CMS-006.

The inspectors found that an audit of the authorization basis maintenance process had been performed from January 26 to February 5, 2001. The inspectors reviewed audit report AR-W375-01-QA00005, "Performance (Effectiveness) audit of the RPP-WTP Authorization Basis Maintenance Process," that documents the audit. The audit report documented the methods and criteria used to evaluate the authorization basis management process. The inspectors determined that the audit was thorough and well designed. The audit was completed and no significant issue related to conformance with the assessment criteria was identified.

On this basis, CMS item 00-CMS-008 was closed.

Conclusions Regarding Status of Corrective Actions for Finding IR-99-007-01-FIN and Corrective Action Notice CAN-2000-01:

On the basis of the inspection results described above and in Inspection Report IR-00-004, the inspectors concluded that the actions taken by the Contractor were consistent with commitments made in response to Finding IR-99-007-01-FIN and corrective action notice CAN-2000-01. All committed actions are complete and the corresponding OSR commitment tracking records have been closed. The OSR will assess the effectiveness of the corrective actions taken in response to Finding IR-99-007-01-FIN and CAN-2000-01 during the next authorization basis maintenance inspection. IR-99-007-01-FIN and CAN-2000-01 will be dispositioned based on the results of that inspection.

1.5.2.2.2 IR-00-002-01-IFI:

In a letter dated March 10, 2000, the OSR forwarded the results of an inspection performed on the BNFL Inc. Employee Concerns Program (ECP). Findings were not identified during the inspection and, as a result, a written response to the inspection report (IR-00-002) was not requested nor provided from the Contractor. One Inspection Follow-up Item (IFI) was identified to track resolution of five weaknesses observed in the ECP implementing procedures and documents. Since a written response was not provided by the Contractor, written commitments were not made by the Contractor to resolve the concerns discussed in the IFI. To close out the IFI, the Contractor provided the following information:

- Revised code of practice K21C001B, *Code of Practice for Employee Concerns Program*, Revision 0, dated February 15, 2001

- WTP ECP pamphlet
- WTP ECP poster
- WTP ECP computer based training module (ECP-0001-01 Rev 1A).

The inspectors reviewed the above material and interviewed the ECP Officer. The code of practice described above was revised to address some of the weaknesses identified in the IFI. However, the code of practice was outdated and was inconsistent with the latest training material, ECP pamphlet, and ECP poster. For example, the points of contact discussed in the procedure reflected individuals and phone numbers that were no longer applicable. The inspectors review for closure of each weakness identified in IR-00-002 is summarized below:

1. The first weakness discussed in IR-00-002 was that the ECP implementing procedures did not include guidance that addressed the process by which sub-contractors would implement an ECP, nor the mechanism for overseeing each sub-contractor's use of a program. The inspectors reviewed the revised code of practice and observed that the applicable section of the revised code of practice had not changed since the last inspection. Therefore, this weakness could not be closed.
2. The second weakness discussed in IR-00-002 was that the ECP implementing procedures did not provide adequate guidance for prioritization and evaluation of concerns during the upcoming construction and operation phase of the project. Procedure K21C001B was reviewed by the inspectors and the applicable section of the procedure had not changed since the last inspection. Therefore, this weakness could not be closed.
3. The third weakness discussed in IR-00-002 was that the ECP implementing procedures did not clearly communicate responsibilities for data entry, access, and security for the ECP database. Section 1.0, General Requirements, of Procedure K21C001B was revised to address this issue. The revised procedure stated that "The ECO [Employee Concerns Officer] shall assure that access to the data is controlled and data is kept secured and confidential." The inspectors determined that this additional clarification addressed the concern and this weakness was considered closed.
4. The fourth weakness discussed in IR-00-002 was that the ECP implementing procedures and the ECP pamphlet omitted the Regulatory Unit (now the OSR) as a point-of-contact for employee concerns. Since the above inspection, the roles of the OSR have changed in the area of employee concerns. The OSR is no longer considered a primary source of contact for Contractor employees wishing to communicate their employee concerns directly to the DOE versus using their own internal system. The DOE point-of contact for this Contract is and will be the RL Employee Concerns Office. This change in responsibility has been addressed in the revised ECP procedure and the revised ECP pamphlet. The inspectors determined that these changes addressed the concern and this weakness was considered closed.
5. The fifth weakness discussed in IR-00-002 was that the ECP implementing procedures did not contain adequate guidance for handling concerns by exiting or dismissed employees. Attachment 8, Employee Guidance Regarding the ECP, of K21C001B was revised to add

guidance for employees leaving the project. Attachment 9, Sample Personnel Exit Checklist, was added to the above procedure. The new attachment provided guidance on how to process a concern raised during the exit interviews and came from another code of practice K21C002, *Code of Practice for Separation of Employment*. However the K21C002 code of practice was deleted and a new procedure had not been developed to formalize the separation process. The inspectors were provided with a revised exit checklist for the RPP-WTP project. The checklist was observed to be similar to the one provided in Attachment 9 but was not formally controlled by procedure. The inspectors observed that the added words in Attachment 8 and the copy of the exit checklist provided in Attachment 9 addressed the weakness; however, since the checklist is no longer controlled by procedure the inspector could not close out this weakness.

The above weaknesses were discussed during an interview with the ECO. The ECO was knowledgeable of the ECP and acknowledged the issues raised. The ECO informed the inspectors that the necessary changes to procedures would be made. As in March of 2000, when this issue had earlier been raised, there are still no subcontractors on the project that would require their own ECP. In addition, with limited construction authorization yet to be issued, the Contractor has time to address these weaknesses before they become a regulatory issue. The inspectors informed the ECP Officer that closure of the remaining weaknesses would likely occur during the OSR's next review of the ECP or prior to ORP authorizing limited construction, whichever comes first. In conclusion, two of the five weaknesses are considered closed and the remaining three are still open. Therefore, the IFI will remain open pending resolution of three open weaknesses.

1.5.2.2.3 01-004-OTH (sixteen items):

The OSR evaluation report, ORP/OSR-2001-03, Revision 0, "Evaluation of Bechtel National, Inc. Capability To Change The RPP-WTP Authorization Basis," dated March 19, 2001, listed, in Section 8, Conclusions, twelve weaknesses that BNI should correct, and specified when, in most cases at the next routine document revision, the corrections should be made. Also listed were four open items from the OSR evaluation of the CHG transition (RL/REG-2000-26) performed in November of 2000. The inspectors review for closure of each of the sixteen weaknesses identified in ORP/OSR-2001-03, Section 8, is summarized below:

1. BNI should identify the alternate chair for the Project Safety Committee (PSC) in Section 11 of the ISMP in the next routine revision of the ISMP.

Resolution of ABCN-24590-01-00001, "Submittal of Quality Assurance Manual (QAM), QAM-24590-01-00001," is needed before this item can be closed. The ABCN requires conforming changes to the ISMP and SRD to ensure consistency with the QAM (i.e., the Contractor will subsequently make numerous revisions to the ISMP and SRD that will include addressing this weakness). In accordance with letter 01-OSR-0193, "Contract No. DE-AC27-01RV14136 – Supplemental Submittal of Contract Deliverable 7.2 - Quality Assurance Manual, QAM-24590-01-00001, Revision B," dated May 29, 2001, the OSR review of Revision B of the QAM will be completed by August 13, 2001. This item will remain open.

2. BNI should address the editorial and format errors in the ISMP during the next routine revision of the ISMP.

Resolution of ABCN-24590-01-00001, "Submittal of Quality Assurance Manual (QAM), QAM-24590-01-00001," is needed before this item can be closed. The ABCN requires conforming changes to the ISMP and SRD to ensure consistency with the QAM (i.e., the Contractor will subsequently make numerous revisions to the ISMP and SRD that will include addressing this weakness). In accordance with letter 01-OSR-0193, "Contract No. DE-AC27-01RV14136 – Supplemental Submittal of Contract Deliverable 7.2 - Quality Assurance Manual, QAM-24590-01-00001, Revision B," dated May 29, 2001, the OSR review of Revision B of the QAM will be completed by August 13, 2001. This item will remain open.

3. BNI has defined differing roles and responsibilities in the QAP and in Chapter 11 of the ISMP. This is potentially confusing. This deficiency should be corrected no later than the next routine revision of these documents.

Resolution of ABCN-24590-01-00001, "Submittal of Quality Assurance Manual (QAM), QAM-24590-01-00001," is needed before this item can be closed. The ABCN requires conforming changes to the ISMP and SRD to ensure consistency with the QAM (i.e., the Contractor will subsequently make numerous revisions to the ISMP and SRD that will include addressing this weakness). In accordance with letter 01-OSR-0193, "Contract No. DE-AC27-01RV14136 – Supplemental Submittal of Contract Deliverable 7.2 - Quality Assurance Manual, QAM-24590-01-00001, Revision B," dated May 29, 2001, the OSR review of Revision B of the QAM will be completed by August 13, 2001. This item will remain open.

4. BNI should complete and distribute the ECP brochure by the end of March. The ECP computer-based training program should also be completed and implemented by the end of March.

The inspectors reviewed the ECP brochure and the ECP computer-based training program. The ECP brochure was complete and was distributed. The ECP computer-based training program was complete and implemented. This item was closed.

5. The BNI limitation of 30 days on review of changes to the QAP is inconsistent with 10 CFR 830 Subpart A, which allows 90 days for DOE response to the submittal or annual resubmittal of the QAP before it is considered approved. Therefore, BNI should delete this statement from its procedures (e.g., K13P005) when they are revised.

Resolution of ABCN-24590-01-00001, "Submittal of Quality Assurance Manual (QAM), QAM-24590-01-00001," is needed before this item can be closed. The Contractor will subsequently revise its procedures in accordance with the QAM. In accordance with letter 01-OSR-0193, "Contract No. DE-AC27-01RV14136 – Supplemental Submittal of Contract Deliverable 7.2 - Quality Assurance Manual, QAM-24590-01-00001, Revision B," dated May 29, 2001, the OSR review of Revision B of the QAM will be completed by August 13, 2001. This item will remain open.

6. BNI should promptly assess the impact of the more stringent software control requirements of DOE/RW-0333P, Revision 10, on work performed under its Contract and should pass down these requirements to its suppliers.

The Contractor completed this action by letter CCN: 019931, "Contract No. DE-AC-01RV14136 - Direction to Determine Potential Impact of Ongoing Subcontractor Work Under DOE/RW-0333P, Revision 8, Rather than DOE/RW-0333P, Revision 10," from A. R. Veirup to Mr. Michael K. Barrett, dated May 8, 2001. This item was closed.

7. A procedural weakness was identified wherein "Functional Engineering Manager" had been replaced with "Deputy Engineering Manager" in some procedures (e.g., K70P003A, K70P552B, and K70P555). Since BNI's organization has three Deputy Engineering Managers (one for facilities, one for systems, and one for processes), this could lead to confusion. Based on review of the instances where Deputy Engineering Manager was specified, the Deputy Engineering Manager for facilities or systems was the appropriate manager to take the action. This should be clarified during the next routine procedure revisions.

The Contractor planned to revise Engineering procedures by October 1, 2001. This item will remain open.

8. BNI should evaluate the Radiological Safety Manager position description to consider inclusion of the Tank Farm Radiological Control Manual (TFRCM) recommended qualification elements prior to commencing limited construction.

The Contractor planned to complete this action prior to Limited Construction Authorization. This item will remain open.

9. The ISMP, Section 2.3.1, paragraph 1, sentence 2 states, "A radiation protection program that implements the requirements of 10 CFR 835 and additional requirements specified in SRD Volume II Chapter 5.0 'Radiation Protection' is established." However, the Radiation Protection Plan currently does not contain all of the elements identified in the ISMP (e.g., solid radioactive waste storage, packaging, and handling). In the next routine update, either the ISMP should be changed to "A radiological controls program..." or the Radiation Protection Plan should be changed to reflect the missing elements specified in the SRD.

At the time the inspection the Contractor was drafting an ABCN. This item will remain open to address this issue.

10. During the development and approval of the Radiation Protection Program for Design and Construction, CHG exceeded the scope of activities specified in the ALARA Subcommittee (ASC) and the PSC procedure (K70P526, Revision 2, February 1, 2001, Section 3.6.1, bullet 1). The scope in these documents limited the ASC activities to design only. However, the ASC reviewed and approved a Radiation Protection Program for Design and Construction. The ASC Charter and the PSC procedure should be

changed to apply to all phases of WTP activities during the next routine update of the charter and procedure.

At the time of the inspection the Contractor was revising the ASC Charter and drafting a Procedure Change Request for the PSC procedure. This item will remain open.

11. The Process Management Team and the Integrated Safety Management (ISM) teams were not in place at the time of the evaluation. Completion of these activities is required per DOE/RL-96-0004 and the SRD before any standards selection activities can commence. The Contractor's transition plan calls for the Process Management Team to be established within 30 days from authorization to proceed with important-to-safety work. This was acceptable to the OSR provided that no standards selection activities would be conducted until the team was established.

The Contractor established the Process Management Team by Memorandum CCN: 019452, "Appointment of the Process Management Team," from R. Naventi to Distribution, dated April 6, 2001. This item was closed.

12. Procedure K70P568 had dropped the reference to design guide K70DG528. Elimination of the design guide as a reference document for implementation details of the radiological, nuclear, and process safety ISM process was a concern to the OSR. BNI was requested to follow-up on its commitment to reinstate K70DG528 into K70P528.

The Contractor reinstated K70DG528 into K70P528 by Procedure Change Request K70P568A, effective May 9, 2001. This item was closed.

13. BNI was requested to continue to update the DCD to be consistent with the BNI Contract requirements.

The Contractor revised procedure K70P565B, "Design Criteria Database," to be consistent with Contract requirements by Procedure Change Request K70P565C, effective May 11, 2001. This item was closed.

14. The OSR requested the Contractor to delete the statement 'that the changes will be considered approved if not accepted or rejected by the OSR in 30 days' from procedure K13P005 when it is revised.

Resolution of ABCN-24590-01-00001, "Submittal of Quality Assurance Manual (QAM), QAM-24590-01-00001," is needed before this item can be closed. The Contractor will subsequently revise its procedures in accordance with the QAM. In accordance with letter 01-OSR-0193, "Contract No. DE-AC27-01RV14136 – Supplemental Submittal of Contract Deliverable 7.2 - Quality Assurance Manual, QAM-24590-01-00001, Revision B," dated May 29, 2001, the OSR review of Revision B of the QAM will be completed by August 13, 2001. This item will remain open.

15. The standards selection process and the design process must be closely coupled and integrated. The OSR encouraged BNI to integrate its design and safety activities so that

any AB documents BNI produces would be sound.

At the time of the inspection, design and standards selection activities had begun but had not progressed enough to evaluate this item. This item will remain open and will be re-evaluated at the Standards Selection Process inspection presently scheduled for September 2001.

16. The Process Management Team had not been convened and some of the training had not been completed. BNI plans called for completion of these activities before starting standards selection process activities.

The Contractor established the Process Management Team by Memorandum CCN: 019452, "Appointment of the Process Management Team," from R. Naventi to Distribution, dated April 6, 2001. The inspectors reviewed the employee training profiles for the Process Management Team members. All of the members, with the exception of one alternate member who had not yet performed any PMT functions, had completed the required training. This item was closed.

1.5.2.3 Items discussed and remaining fully open

The inspectors determined that the corrective actions for IFS open items IR-00-001-04-IFI, 01-001-OTH, and 01-002-OTH were not yet implemented, and sufficient information was not available to partially close these items. Inspection conclusions regarding the timeliness of the actions will be determined when the commitments are closed.

IFS open items IR-99-007-01-FIN, IR-00-002-01-IFI, and 01-004-OTH concerned the following:

1. IR-00-001-04-IFI: Lack of procedures or implementation of QAPIP requirements to define and specify data quality requirements.
2. 01-001-OTH: The Contractor committed to implement interim measures to train and qualify new staff. The measures were detailed in correspondence CCN 019097, dated March 14, 2001, Naventi to Barrett, "Bechtel National, Inc. Proposed Corrective Actions for Concerns Noted by the Office of Safety Regulation During Evaluation of BNI Capacity to Change the RPP-WTP Authorization Basis."
3. 01-002-OTH: The Contractor committed to implement interim measures to identify its employees. The measures were detailed in correspondence CCN: 019097.

Inspection details for each of these items are as follows:

1.5.2.3.1 IR-00-001-04-IFI:

During the OSR design process inspection performed in January 2000, the OSR determined that the Contractor had failed to establish procedures that would ensure applicable quality requirements were specified for data obtained from contracted research and technology development activities. This issue was being tracked as an IFI (as opposed to an inspection

Finding) because of its apparent relationship to another open issue (DCAR WP&DP-AUE-00-01) that was being tracked by ORP and a previous WTP Contractor. Later, it was determined by the Contractor that completion of the related open item would not address the specific issue described by the IFI. Accordingly, the previous WTP Contractor made specific corrective action commitments to address the data quality issue. These corrective actions are documented in letter CCN 011412, dated April 3, 2000, to the OSR and are recorded in the Contractor's corrective action management system (CAMS).

The inspectors interviewed ES&H personnel and reviewed CAMS records to determine the current status of the data quality requirements issue. The inspectors determined that the previous Contractor's corrective action commitments were never completed and are nearly a year overdue. This issue was discussed with ES&H personnel and it was agreed that a new corrective action plan should be developed to describe BNI's approach to resolving the data quality issue. The OSR noted that BNI has drafted letter CCN 020157 to DOE that will commit to developing a new corrective action plan to address IR-00-001-04-IFI by June 22, 2001. The inspectors determined that this was an acceptable approach to addressing the issue described in IR-00-001-04-IFI. Inspection Follow-up Item IR-00-001-04-IFI will remain open to track this issue.

1.5.2.3.2 01-001-OTH:

In response to ORP/OSR-2001-03, Revision 0, "Evaluation of Bechtel National, Inc. Capability To Change The RPP-WTP Authorization Basis," dated March 19, 2001, the Contractor committed, in a letter to ORP, CCN 019097, to corrective actions regarding the Contractor's training and qualification process. The inspectors reviewed the Contractor's corrective action commitments listed in CCN 019097 in the paragraph titled, "Training and Qualification Process," as follows:

1. Commitment: The qualification process used to establish the LQI list will be proceduralized and the LQI will remain as a project record.

The Training Procedure (K20P010) did not mention the LQI or state that identifying employees for the LQI was the purpose of the review committee (also known as the "Triad") identified in Section 3.2.6 of K20P010. Also, K20P010 did not identify how the qualifications of subcontractors were handled. The inspectors observed that desk instruction, K20I001, "List of Qualified Individuals for Important to Safety Work," was not referenced by K20P010. The inspectors determined that the Contractor's procedural controls, as defined in K13P003F_0, "Production of RPP-WTP Procedures," did not apply to desk instructions. Therefore, the inspectors concluded that the desk instruction alone did not meet the commitment contained in CCN 019097 to proceduralize the qualification process for ITS activities. This item will remain open.

2. Commitment: A review committee panel consisting of the hiring manager and TM will review each individual's training and qualification folder and accept it after ascertaining that it is adequate and complete.

The inspectors reviewed K20P010, step 3.2.6, which required a review committee to verify the accuracy of the file after the individual's indoctrination is completed; however,

the procedure did not reference K20I001, which described the ITS qualification process (i.e. places the individual on the LQI). The procedure, K20P010, did not mention the LQI or state that identifying employees for the LQI was the purpose of the review committee. Also, K20P010 did not identify how the qualifications of subcontractors were handled. This item will remain open.

3. Commitment: In parallel with corrective actions to address DR-W375-01-QA-00009, which concerned "deficiencies in Project personnel (including staff augmentation personnel) qualification records and verification of education and experience," training procedures will be consolidated and upgraded. Revised procedures will incorporate the new training record and acceptance process into department roles and responsibilities.

This item remains open for the reasons given in 1 and 2 above.

4. Commitment: The action plan to address the items contained in DR-W375-01-QA-00009, is due March 30, 2001.

The inspectors verified that the action plan was approved prior to March 30, 2001. The action plan was in the process of completion at the time of the inspection. However, the action plan did not address the issue of the lack of procedural guidance for handling the qualifications of subcontractors, which was an item contained in DR-W375-01-QA-00009. This item will remain open.

1.5.2.3.3 01-002-OTH:

In response to ORP/OSR-2001-03, Revision 0, "Evaluation of Bechtel National, Inc. Capability To Change The RPP-WTP Authorization Basis," dated March 19, 2001, the Contractor committed, in a letter to ORP, CCN 019097, to corrective actions regarding the Contractor's organization and staffing. Specifically, the Contractor committed to implement interim measures to identify its employees.

This item will remain open because Contractor actions were not complete. In accordance with correspondence CCN 019927 from, R. F. Naventi to William J. Taylor, "Contract No. DE-AC27-01RV14136 - Bechtel National, Inc.'s Capability to Safely Make Changes in the River Protection Project - Waste Treatment Plant Authorization Basis," dated May 10, 2001, Contractor actions were scheduled to complete by May 31, 2001, after this inspection was completed.

1.5.3 Conclusions

Of ten open items reviewed, the inspectors determined that four could be closed, portions of three could be closed, and four would remain fully open. One new Inspection Follow-up Item, IR-01-001-01-IFI, was created to track the completion of the plan to revise the procedures program and resolve or disposition the Procedure Challenge Team recommendations and procedure owner input. The inspectors noted that BNI presently plans to complete the plan by October 8, 2001.

2.0 EXIT MEETING SUMMARY

The inspectors presented the inspection results to members of Contractor management at an exit meeting on May 17, 2001. 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 that no limited rights data was examined during the inspection.

3.0 REPORT BACKGROUND INFORMATION

3.1 Partial List of Persons Contacted

J. Rutherford, Surveillance Supervisor
 S. Moon, Senior Quality Engineer Surveillance
 D. Shugars, Q. E. Supervisor
 K. Vacca, Training Manager
 Denise Busch, Procurement Services Manager
 Tom Doolittle, Procurement and Property Manager
 R. Holleran, Deputy Human Resources Manager
 Bill Yeo, Human Resources Programs Manager
 G. Duncan Engineering Manager-Mechanical
 K. Lesko, Area Procedures Manager
 Lorie Blehm, Procedure Lead
 Daniel Wieczorkowski, Training Lead
 D. Patel, Deputy Engineering Manager-Electrical
 B. Posta, Mechanical System Manager

3.2 List of Inspection Procedures Used

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

Inspection Technical Procedure I-106, "Personnel Training and Qualification Assessment"

3.3 List of Items Opened, Closed, and Discussed

Opened

IR-01-001-01-IFI	Follow-up	Review the completion of the plan to revise the procedures program and resolve or disposition the Procedure Challenge Team recommendations and procedure owner input. The Contractor presently plans to complete the plan by October 8, 2001.
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Closed

IR-99-007-05-FIN	Finding	Failure to revise an issued Authorization Basis Change
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Notice (ABCN) in accordance with requirements of the Quality Assurance Program Implementation Plan (QAPIP).

IR-99-007-06-FIN	Finding	Some personnel performing authorization basis management activities were not trained and qualified according to commitments in the ISMP.
IR-00-003-02-IFI	Follow-up	Review the resolution of DR-W375-99-QA00115 and CAR-W375-00-QA00002.
01-003-OTH	Follow-up	The Contractor committed to implement interim measures to ensure procedures did not reference cancelled procedures.

Discussed and Partially Closed

IR-99-007-01-FIN	Finding	Failure to implement a process to ensure that the authorization basis is maintained current with the facility design.
IR-00-002-01-IFI	Follow-up	ECP procedure weaknesses.
01-004-OTH	Follow-up	Evaluation (ORP/OSR-2001-03) lists (In Section 8, Conclusions) weaknesses that BNI should correct, and specifies when (In most cases at the next routine document revision). Also lists open items from CHG transition evaluation.

Discussed and Remaining Fully Open

IR-00-001-04-IFI	Follow-up	Lack of procedures or implementation of QAPIP requirements to define and specify data quality requirements.
01-001-OTH	Follow-up	The Contractor committed to implement interim measures to train and qualify new staff. The measures were detailed in correspondence, CCN 019097, dated March 14, 2001, Naventi to Barrett, " Bechtel National, Inc. Proposed Corrective Actions for Concerns Noted by the Office of Safety Regulation During Evaluation of BNI Capacity to Change the RPP-WTP Authorization Basis."
01-002-OTH	Follow-up	The Contractor committed to implement interim measures to identify its employees. The measures were detailed in correspondence CCN 019097.

3.4 Key Documents Reviewed

Procedures, Plans, Codes of Practice, Instructions, and Procedure Change Requests:

K20PD001_0, "Employee Qualifications for Assignment," dated March 6, 2001.

K20P010_0, "Training Procedure," dated April 30, 2001.

K13P003F_0, "Production of RPP-WTP Procedures," dated January 25, 2001.

K70P528, "Authorization Basis Maintenance," Revision 2.

K13C003, "Code of Practice for the Production of Process-Based Procedures," Revision B_1.

K70P577, "Design Inputs," Revision 2.

K70P551, "Drawings and Sketches: Preparation, Checking, and Approval," Revision 2.

K13C023, "Code of Practice for the Internal Review And Approval of Documents," Revision 3.

K70G505, "Environmental, Safety, and Health Review of Documents," Revision 0.

K13P020, "Project Records Management," Revision A_0.

PL-W375-TR00001, *RPP-WTP Training and Development (T&D) Plan-Design Confirmation Phase*, Revision 2, dated October 17, 2000.

K21C001B, *Code of Practice for Employee Concerns Program*, Revision 0, dated February 15, 2001.

K20I001_0, Desk instruction, "List of Qualified Individuals for Important to Safety Work," dated May 10, 2001.

Procedure Change Request K70P568A, effective May 9, 2001.

Procedure Change Request K70P565C, effective May 11, 2001.

Deficiency Reports (DRs), Surveillance Reports (SVs), and Audit Reports (ARs):

Deficiency Report, DR-W375-01-QA-00009, Revision 1, dated February 5, 2001.

Deficiency Report, DR-W375-01-QA-00012, Revision 0, dated February 6, 2001.

Deficiency Report, DR-W375-QA-01-00014, Revision 1, dated March 12, 2001.

Surveillance Report, SV-W375-01-QA-0003, Revision 0, signed March 7, 2001.

Surveillance Report, SV-W375-01-QA-0005, Revision 0, signed March 6, 2001.

Surveillance Report, SV-W375-01-QA-0008, Revision 0, signed March 7, 2001.

Surveillance Report, SV-W375-01-QA-00035, Revision 0, signed April 23, 2001.

Surveillance Report, SV-W375-01-QA-00041, Revision 0, signed April 24, 2001.

Surveillance Report, SV-24590-01-QA-00009, Revision 0, signed May 3, 2001.

Surveillance Report, SV-24590-01-QA-00011, Revision 0, signed May 7, 2001.

Surveillance Report, SV-24590-01-QA-00016, Revision 0, signed May 8, 2001.

Surveillance Report, SV-24590-01-QA-00017, Revision 0, signed May 9, 2001.

Surveillance Report, SV-W375-00-QA00046, "Surveillance of Project Document Control Change Requirements Identified by IR-99-007-05-FIN."

Audit Report, AR-W375-01-QA00005, "Performance (Effectiveness) audit of the RPP-WTP Authorization Basis Maintenance Process."

Correspondence:

CCN 019200, letter, from Lesko to Distribution, "Procedure Review Requirements-Deficiency Report DR-W375-QA-00014, Long Term Corrective Action #1 Closure," dated March 22, 2001.

CCN 019286, letter, from Lesko to Rutherford, "Closure of Long Term Corrective Action #1, Deficiency Report DR-W375-01-QA-00014," dated March 29, 2001.

RPP-WTP Project Procedures Review Team letter from the team (signed by Paul Rice) to R. Naventi, "Review of Project Procedures and Related Processes," dated April 10, 2001.

CCN 019922, memorandum (with attachments), from R. F. Naventi to W. G. Poulson, "DR-W375-01-QA-00014, Action #3 Closure, dated May 7, 2001.

CCN 019348, letter from A. R. Veirup to William J. Taylor, Contract No. DE-AC27-01RV14136 - Bechtel National, Inc. Response to Office of Safety Regulation Comments on CHG Response to Inspection Follow-up Item Review Inspection Report IR-00-006," dated April 20, 2001.

CCN 019927, letter from R. F. Naventi to W. J. Taylor, ORP, "Contract No. DE-AC27-01RV14136 - Bechtel National, Inc.'s Capability to Safely Make Changes in the River Protection Project - Waste Treatment Plant Authorization Basis," dated May 10, 2001.

CCN 019097, letter, from R. F. Naventi to M. K. Barrett, ORP, "Bechtel National, Inc. Proposed Corrective Actions for Concerns Noted by the Office of Safety Regulation During Evaluation of BNI Capacity to Change the RPP-WTP Authorization Basis," dated March 14, 2001.

CCN 020033, memorandum, from P. Karen Vacca to George Shell, dated May 9, 2001.

CCN 019931, letter, from A. R. Veirup to M. K. Barrett, ORP, "Contract No. DE-AC-01RV14136 - Direction to Determine Potential Impact of Ongoing Subcontractor Work Under DOE/RW-0333P, Revision 8, Rather than DOE/RW-0333P, Revision 10," dated May 8, 2001.

CCN: 019452, memorandum from R. Naventi to Distribution, "Appointment of the Process Management Team," dated April 6, 2001.

Other:

LQI-W375-01-00001, "List of Qualified Individuals for Important to Safety Work," Revision 11, dated May 3, 2001.

Training material, DIM-DCD-0001-01, "Design Input Memorandum & Design Criteria Database," Revision 0.

Training material, AB-0001-03, "Authorization Basis," Revision 3.

ABCN-W375-99-0044, "Revision to TWRS-P RPP (10 CFR 835 Revision)," Revision 1.

3.5 List of Acronyms

AB	Authorization Basis
ABAR	Authorization Basis Amendment Request
ABCN	Authorization Basis Change Notice
ALARA	as low as is reasonably achievable
AR	audit report
ASC	ALARA Subcommittee
BNI	Bechtel National, Inc.
CAMS	Corrective Action Management System
CAP	Corrective Action Plan
CAR	Corrective Action Report
CCN	Correspondence Control Number
CFR	Code of Federal Regulations
CHG	CH2M Hill Hanford Group
CMS	Commitment Management System
DCD	Design Criteria Database
DIM	Design Input Memorandum
DOE	U.S. Department of Energy
DR	Deficiency Report
ECP	Employee Concerns Program
ES&H	Environmental, Safety, and Health

HAR	Hazard Analysis Report
HGET	Hanford General Employee Training
IFI	Inspection Follow-up Item
ITP	Inspection Technical Procedure
IR	Inspection Report
ISM	Integrated Safety Management
ISMP	Integrated Safety Management Plan
ITS	Important to Safety
LQI	List of Qualified Individuals
ORP	Office of River Protection
OSR	Office of Safety Regulation
OTH	Other
PDC	Project Document Control
PPR	Potential Problem Report
PSC	Project Safety Committee
QA	Quality Assurance
QAM	Quality Assurance Manual
QAP	Quality Assurance Program
QAPIP	Quality Assurance Program Implementation Plan
RCP	Radiological Controls Program
RL	Richland Operations Office
RPP-WTP	River Protection Project – Waste Treatment Plant
SRD	Safety Requirements Document
SV	Surveillance Report
T&D	Training and Development
TFRCM	Tank Farm Radiological Control Manual
TRTT	Training Records Task Team
TWRS-P	Tank Waste Remediation System Privatization

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