



U.S. Department of Energy
Office of River Protection

P.O. Box 450
Richland, Washington 99352

03-OSR-0030

Mr. R. F. Naventi, Project Manager
Bechtel National, Inc.
2435 Stevens Center
Richland, Washington 99352

Dear Mr. Naventi:

CONTRACT NO. DE-AC-01RV14136 – INSPECTION REPORT A-03-OSR-RPPWTP-005 –
DOCUMENT CONTROL AND RECORDS MANAGEMENT INSPECTION

This letter forwards the results of the U.S. Department of Energy, Office of River Protection review of Bechtel National, Inc. (BNI) document control and records management performance associated with the design and construction of the Waste Treatment and Immobilization Plant conducted January 6 through 16, 2003. One Finding was identified (Enclosure 1). Details of the inspection are documented in the enclosed (Enclosure 2) inspection report.

The Finding regarded BNI's failure to incorporate a field change request in the next revision of the drawing as required by the procedure. Although this Finding and some minor issues were identified regarding BNI's program for implementing the Quality Assurance requirements for document control and records management, overall performance in this area was adequate.

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:JWM

Enclosures (2)

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

NOTICE OF FINDING

Section C, "Statement of Work," Standard 7, "Environment, Safety, Quality, and Health," of the Contract,¹ defines Bechtel National, Inc.'s (the Contractor) responsibilities under the Contract as they relate to conventional non-radiological worker safety and health; radiological, nuclear, and process safety; environmental protection; and quality assurance.

Standard 7, Section (d) of the Contract requires the Contractor to develop and implement an integrated, standards-based, safety management program to ensure that radiological, nuclear, and process safety requirements are defined, implemented, and maintained. The Contractor is required to conduct work in accordance with the Contractor-developed and Department of Energy (DOE)-approved Safety Requirements Document (SRD). The Contractor's SRD was defined in 24590-WTP-SRD-ESH-01-001-02, Rev. 2, dated December 11, 2002. The Contractor's SRD, Safety Criterion 7.3 – 4, requires that "Documents shall be prepared, reviewed, approved, issued, used, and revised to prescribe processes, specify requirements, or establish design. Records shall be specified, prepared, reviewed, approved, and maintained."

Standard 7, Section (e)(3), "Quality Assurance," of the Contract requires the Contractor "to develop a QA [Quality Assurance] Program, supported by documentation that describes overall implementation of QA requirements. Documentation shall identify the procedures, instructions, and manuals used to implement the Contractor's QA program within the Contractor's scope of work."

The Contractor's *Quality Assurance Manual* (QAM), 24590-WTP-QAM-QA-01-001, Revision 2, dated November 4, 2002, contains the policies, which establish the QA requirements for the project. *Quality Assurance Manual* Policy Q-05.1, "Instructions, Procedures, and Drawings," Section 3.1.1 states "Activities affecting quality shall be prescribed by and performed in accordance with documented instructions, procedures, and drawings of the type appropriate to the circumstances...."

During the performance of document control and records management inspections from January 6 through January 16, 2003, at the Contractor's Engineering offices, the following item was identified:

Quality Assurance Manual Policy Q-05.1, Instructions, Procedures, and Drawings, Section 3.1.1 requires "Activities affecting quality shall be prescribed by and performed in accordance with documented instructions procedures, and drawings of the type appropriate to the circumstances" Procedure 24590-WTP-3DP-G04B-00046, Engineering Drawings, Revision 3, *Section 3.5.3*, requires in part "All outstanding design change control documents (DCN's, Field Change Requests, Field Change Notices) and other approved design changes approved for incorporation (SDDRs, NCRs) shall be incorporated into the associated drawings, by drawing revision, anytime one of the following occurs:

- The drawing is revised and reissued for any reason;"

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

Field Change Request 24590-WTP-FCR-C-02-046 was approved, on June 14, 2002, for incorporation into drawing 24590-HLW-DD-S13T-00008, "HLW Vitrification Building Concrete Embed and Anchorage Schedule and Details," Revision 1, to add a note to the drawing stating "Lateral alignment for embed plates in each direction in the plane of the slab, column, or wall shall be +/- 2". Revisions 2, 3, 4, and 5 of drawing 24590-HLW-DD-S13T-00008 were subsequently issued since June 14, 2002.

Contrary to QAM Policy Q-05.1 and procedure 24590-WTP-3DP-G04B-00046, as of January 16, 2003, Field Change Request 24590-WTP-FCR-C-02-046 had not been incorporated into the four revisions of drawing 24590-HLW-DD-S13T-00008.

Failure to incorporate Field Change Request 24590-WTP-FCR-C-02-046 into drawing 24590-HLW-DD-S13T-00008 is a Finding against QAM Policy Q-05.1 regarding the requirement to follow procedures, specifically procedure 24590-WTP-3DP-G04B-00046. (See Inspection Report A-03-OSR-RPPWTP-005, Section 1.2, A-03-OSR-RPPWTP-005-F02.)

The Office of River Protection requires the Contractor to provide, within 30 days of the date of the cover letter that transmits this Notice, a reply to this Finding. The reply should include: (1) admission or denial of the alleged Finding; (2) the reason for the Finding, if admitted, and if denied, the reason why; (3) the corrective steps that have been taken and the results achieved; (4) the corrective steps that will be taken to avoid further Findings; and (5) the date when full compliance with the applicable commitments will be achieved. When good cause is shown, consideration will be given to extending the requested response time.

U.S. DEPARTMENT OF ENERGY
Office of River Protection

INSPECTION: Document Control and Records Management Inspection

REPORT NO: A-03-OSR-RPPWTP-005

FACILITY: Bechtel National, Inc.

LOCATION: 3000 George Washington Way
Richland, Washington 99352

DATES: January 6 – 16, 2003

INSPECTORS: J. McCormick-Barger, Sr. Regulatory Technical Advisor, Inspection Lead
W. P. Ang, Consultant

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

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EXECUTIVE SUMMARY
Document Control and Records Management Inspection
Inspection Report Number A-03-OSR-RPPWTP-005

INTRODUCTION

This inspection of the Bechtel National, Inc. (the Contractor) implementation of *Quality Assurance Manual* activities covered the following areas:

- Document Control (Section 1.2)
- Records Management (Section 1.3)
- Closure of Inspection Items (Section 1.4)

SIGNIFICANT OBSERVATIONS AND CONCLUSIONS:

- The Contractor's *WTP Document Administration, Project Records Management, and Field Project Document Control* procedures provided adequate controls for the preparation, issue, and change of documents to ensure correct documents were being employed. The procedures adequately implemented the requirements of *Quality Assurance Manual* (QAM) Policy Q-06.1, *Document Control*. (Section 1.2)
- The Contractor adequately implemented the document control requirements of the *WTP Document Administration, Project Records Management, and Field Project Document Control* procedures except for one example. The failure to incorporate FCR 24590-WTP-FCR-C-02-046 into the revision of drawing 24590-HLW-DD-S13T-00008, as required by the *Engineering Drawings* procedure, was identified as a Finding against QAM Policy Q-05.1, regarding the requirement to follow procedures (Finding number A-03-OSR-RPPWTP-005-F02). (Section 1.2)
- The Contractor's *WTP Document Administration, Project Records Management, and Field Project Document Control* procedures provided adequate controls for identifying, processing, storing, and dispositioning records. The procedures adequately implemented the requirements of QAM Policy Q-17.1, *Quality Assurance Records*. (Section 1.3)
- The Contractor adequately implemented the records management requirements of the *WTP Document Administration, Project Records Management, and Field Project Document Control* procedures except for one example. The processing and storage of radiographs was not being performed in accordance with QAM Policy Q-17.1. The observed condition was of minor safety significance and promptly corrected by the Contractor. The Contractor initiated CAR-QA-03-002 to evaluate and provide additional corrective actions for the observed condition. This was considered a non-cited Finding. (Section 1.3)

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DOCUMENT CONTROL AND RECORDS MANAGEMENT PROGRAM INSPECTION INSPECTION REPORT A-03-OSR-RPPWTP-005

1.0 REPORT DETAILS

1.1 Introduction

In accordance with the River Protection Project Waste Treatment and Immobilization Plant (WTP) Contract¹ and specifically 10 CFR 830, Subpart A, "*Quality Assurance Requirements*," the Contractor was required to have a Quality Assurance Manual (QAM) that assigned responsibilities and authorities, defined policies and requirements, and provided for the performance and assessment of work. In addition, the Safety Requirements Document, Safety Criterion 7.3 – 4, required "Documents shall be prepared, reviewed, approved, issued (SRD), used, and revised to prescribe processes, specify requirements, or establish design. Records shall be specified, prepared, reviewed, approved, and maintained." 24590-WTP-QAM-QA-01-001, QAM, Revision 2, dated November 4, 2002, was used as the basis for this inspection.

The inspectors reviewed Bechtel National, Inc.'s (the Contractor) document control and records management program implementing procedures to confirm implementation of QAM Policy Q-05.1, *Instructions, Procedures, and Drawings*, Policy Q-06.1, *Document Control*, and Policy Q-17.1, *Quality Assurance Records*.

Details and conclusions regarding this inspection are described below.

1.2 Document Control (Inspection Technical Procedure [ITP] I-131)

1.2.1 Inspection Scope

The inspectors examined the Contractor's document control procedures to confirm implementation of the requirements of QAM Policy Q-06.1, "*Document Control*." The inspectors examined issued procedures, drawings, Field Change Requests (FCR), and Document History Records (DHR). The inspectors interviewed responsible Contractor personnel and, in some cases, observed processing of the documents.

1.2.2 Observations and Assessments

Document Control Procedures

The inspectors reviewed the following procedures to confirm controls were specified for the preparation, issue, and change of documents and the controls ensured correct documents were employed.

¹ Contract DE-AC27-01RV14136 between the U.S. Department of Energy and Bechtel National, Inc., dated December 11, 2000.

- 24590-WTP-GPP-MGT-007, *WTP Document Administration*, Revision 0, dated November 4, 2002
- 24590-WTP-GPP-PADC-002, *Project Records Management*, Revision 3, dated November 8, 2002
- 24590-WTP-GPP-CON-7107, *Field Project Document Control*, Revision 2, dated December 17, 2002.

The inspectors noted the *Project Records Management* procedure, and other procedures, referred to the Electronic Data Management System (EDMS) as the database used to log, track, and store documents but the procedure did not specifically define the database. The inspectors observed the Contractor used at least two databases called "IDOCs" and "CONRAD." The Project Archives and Document Control (PADC) Manager informed the inspectors the PADC maintained EDMS was the WTP Local Area Network application called CONRAD. The PADC Manager stated the *Project Records Management* procedure would be changed to define the EDMS. Follow-up to verify this and other procedure changes, described in later parts of this report, are implemented will be tracked as assessment follow-up item (AFI) A-03-OSR-RPPWTP-005-A01.

The inspectors observed other procedural inconsistencies described in specific subject areas further in this inspection report. The inspectors noted the inconsistencies were minor in nature. The inspectors discussed the procedural inconsistencies with the PADC Manager. The PADC Manager agreed with the inspectors concerns regarding the inconsistencies and informed the inspectors the procedures in question would be revised to address the issues. The projected changes to the procedures resolved the inspectors concerns. The inspectors determined the document control procedures implemented the requirements of the QAM Policy Q-06.1, Section 3.1.

The inspectors reviewed the following procedures and drawings and confirmed the procedures and drawings were reviewed for adequacy and approved for issue by authorized personnel in accordance with QAM Policy Q-06.1, Section 3.1:

- 24590-WTP-3DP-G04B-00046, *Engineering Drawings*, Revision 3, dated November 22, 2002
- 24590-WTP-3DP-G04B-00062, *Disposition of Field Change Requests/Field Change Notice*, Revision 3, dated November 27, 2002
- 24590-WTP-3DP-G04B-00037, *Engineering Calculations*, Revision 2, dated November 4, 2002
- 24590-WTP-GPP-MGT-002, *Management Assessment*, Revision 2, dated January 10, 2003
- 24590-WTP-GPP-QA-201, *Corrective Action*, Revision 3, dated November 4, 2002

- 24590-WTP-GPP-QA-601, *Quality Assurance Surveillance*, Revision 1, dated August 8, 2002
- 24590-WTP-GPP-QA-501B, *Independent Assessment (Audit)*, Revision 0, dated October 26, 2002
- 24590-WTP-GPP-PADC-008, *Internal PADC Data Entry Monitoring Process*, Revision 0, dated December 16, 2002
- Drawing 24590-HLW-DB-S13T-00001, *HLW Vitrification Building Concrete General Arrangement*, Revision 8
- Drawing 24590-PTF-DG-S13T-00025, *Pretreatment Facility Structural Concrete Reinforcement Sections*, Revision 3
- Drawing 24590-HLW-DD-S13T-00008, *HLW Vitrification Building Concrete Embed and Anchorage Schedule and Details*, Revision 5.

Distribution and Use of Documents

The Contractor's *Project Records Management*, and *Field Project Document Control* procedures provided the requirements for the distribution and use of documents. Section 3.5.5 of the *Project Records Management* procedure provided the requirements for the distribution of controlled and uncontrolled documents for the project. Section 3.5.1.2 of the *Project Records Management* procedure provided requirements for storing an electronic copy of the documents in the EDMS. Section 3.3.4 of the *Field Project Document Control* procedure provided the requirements for the field distribution of documents. Section 3.3.6 of the *Field Project Document Control* procedure provided the requirements for the use of documents at the construction site.

The Contractor employed several methods to distribute controlled documents. Controlled documents were available electronically by accessing the controlled database (CONRAD), controlled sets of documents were located at various places throughout the project, and copies of documents could be obtained from PADC. To assess the fidelity between documents provided from PADC and the CONRAD database, the inspectors requested information copies of 36 drawings from several design areas of the WTP. The inspectors compared the revisions and posted change documents provided by PADC with what was indicated in the CONRAD database. Except for three drawings, the document revisions and posted change documents identified in CONRAD, agreed with the information documents provided by PADC. The three exceptions were drawings where Design Change Notices (DCNs) were not included with the drawings obtained from PADC. Discussions with PADC indicated failure to provide the DCNs was the result of PADC personnel errors and actions were taken by PADC to address the performance issues. The inspectors requested additional samples of drawings, obtained by someone not associated with the inspection, to determine if PADC personnel errors were common. A design engineer requested ten additional drawings with no errors identified. The inspectors concluded the errors were not systematic and there was good agreement between the drawings provided by PADC and the CONRAD database.

As noted above, Section 3.3.6 of the *Field Project Document Control* procedure provided the requirements for the use of documents at the construction site. The procedure required users of documents to daily verify the current revision of the document was in use. The procedure allowed this verification to be performed by comparing the document with a controlled copy of the document or by accessing the EDMS. The inspectors observed Contractor personnel had access to databases called IDOCS and CONRAD. Contractor PADC management informed the inspectors IDOCS was downloaded from CONRAD approximately one day late. The inspectors observed the *Project Records Management* procedure did not define the EDMS (previously noted above) and did not have provisions to mark or otherwise delineate file copies of superseded records as not suitable for use. The PADC Manager stated a requirement would be added to the *Project Records Management* procedure to require the user of the record to verify the applicable revision of the record through the EDMS and the EDMS would also be defined. The projected clarification of the *Project Records Management* procedure resolved the concern regarding the use of superseded documents. Follow-up to verify the procedure change is implemented will be tracked as AFI A-03-OSR-RPPWTP-005-A01.

Document Review, Major Document Changes, and Incorporating Changes

Contractor procedure *WTP Document Administration* provided the requirements for the revision of documents. Section 3.6 of the *WTP Document Administration* procedure allowed review and concurrence to documents by means of a DHR form, by e-mail concurrence, or by concurrence signature on the document. As part of the follow-up inspection for Finding IR-02-010-02-FIN, discussed later in this inspection report, the inspectors reviewed about 10 of the last procedures to have been revised to ensure revision histories were provided in the procedures as required. In addition, the inspectors reviewed the following DHR's and interviewed several of the document reviewers:

- DHR for 24590-WTP-GPP-SREG-002, *Authorization Basis Maintenance*, Revision 4
- DHR for 24590-WTP-GPP-CON-7107, *Field Project Document Control*, Revision 2
- DHR for 24590-WTP-3DP-G04B-00046, *Engineering Drawings*, Revision 3
- DHR for 24590-WTP-3DP-G04T-00901, *Design Change Control*, Revision 2.

The inspectors determined changes to the documents were reviewed and approved by organizations or technical disciplines affected by the change. The inspectors determined during the interview of reviewers that required comments from the reviewers were incorporated into the affected documents.

Section 3.5.3 of the Contractor's *Engineering Drawings* procedure provided the requirements for incorporating approved design changes, including FCRs, into drawings. The procedure included provisions for the document history, description of the change, and concurrences for the change, by means of the drawing revision block. The procedure required all outstanding change control documents, including FCRs, shall be incorporated into the drawing when the drawing is revised for any reason, when lack of incorporation could cause a misunderstanding by construction, or when five design change control documents have been issued against the drawing. The

inspectors examined the following drawings and FCRs to confirm implementation of the *Engineering Drawings* procedure requirements for incorporating design change control documents:

- Drawing 24590-HLW-DB-S13T-00001, *HLW Vitrification Building Concrete General Arrangement*, Revision 8, approved September 16, 2002
- Drawing 24590-PTF-DG-S13T-00025, *Pretreatment Facility Structural Concrete Reinforcement Sections*, Revision 3, approved December 5, 2002
- Drawing 24590-HLW-DD-S13T-00008, *HLW Vitrification Building Concrete Embed and Anchorage Schedule and Details*, Revision 5, approved January 10, 2003
- FCR # 24590-WTP-FCR-C-02-046, approved June 14, 2002
- FCR # 24590-WTP-FCR-C-02-164, approved January 7, 2003
- FCR # 24590-WTP-FCR-C-02-138, approved October 28, 2002.

The inspectors discussed the FCR's and drawing changes with the cognizant design engineers and determined two of the three FCR's were appropriately processed and/or incorporated into the affected drawings. On January 16, 2003, the inspectors determined FCR 24590-WTP-FCR-C-02-046, written against drawing 24590-HLW-DD-S13T-00008, Revision 1, had not been incorporated into the drawing during subsequent drawing revisions as required by Procedure 24590-WTP-3DP-G04B-00046, *Engineering Drawings*, Revision 3. Section 3.5.3 of this procedure required in part "All outstanding design change control documents (DCNs, Field Change Requests, Field Change Notices) and other approved design changes approved for incorporation (SDDRs, Nonconformance Report [NCR]) shall be incorporated into the associated drawings, by drawing revision, anytime one of the following occurs. The drawing is revised and reissued for any reason;" Four revisions of the drawing had been issued since the FCR was approved on June 14, 2002. The inspectors determined the failure to incorporate the FCR into the drawing, as required by the *Engineering Drawings* procedure, was a Finding against QAM Policy Q-05.1, Instructions, Procedures, and Drawings, Section 3.1.1 regarding the requirement to follow procedures (Finding Number A-03-OSR-RPPWTP-005-F02).

Minor Document Changes and Correcting Information in Records

Section 3.3.2.2, *Changes to Approved Documents*, of the *Project Records Management* procedure contained provisions for changing documents after they had been approved, but not yet issued by PDC. This provision allowed changes to be made under the conditions described above by placing a single line through the erroneous information and adding, nearby, the correct information. The initials of the person making the change and the initials of the document approver were also required. The inspectors expressed concerns the change provision could result in changing substantial technical information regarding quality or authorization basis requirements without the benefit of Quality Assurance or Environmental and Nuclear Safety review. PDC management informed the inspectors the change process was intended to allow for minor changes to correct errors such as wrong document numbers or revision numbers, not to

make significant technical changes. The inspectors were informed the procedure would be changed to limit these changes to minor, non-technical corrections to approved documents. This resolved the inspectors concern. The inspectors did not observe any substantial changes to documents reviewed that were performed using the methodology provided by Section 3.3.2.2, *Changes to Approved Documents*, of the *Project Records Management* procedure. Follow-up to verify the procedure change is implemented will be tracked as AFI A-03-OSR-RPPWTP-005-A01.

Expedited Document Changes

As part of the inspection of follow-up item IR-02-010-03-IFI, discussed later in this inspection report, the inspectors determined procedure 24590-WTP-GPP-CPRO-001, *Production of River Protection project- Waste Treatment Plant Procedures*, and the provisions for expedited document changes contained in the procedure, was superseded by the *WTP Document Administration* procedure on November 4, 2002. The inspectors learned the Contractor previously implemented the expedited document change process and subsequently decided the process was being misused and was not needed at the current phase of design and construction. Provision for expediting document changes were not carried over to the new *WTP Document Administration* procedure. Although the QAM provided for an expedited document change process, the Contractor's decision to delay implementing this option was not viewed as a violation of the QAM.

1.2.3 Conclusions

The inspectors concluded the *WTP Document Administration*, *Project Records Management*, and *Field Project Document Control* procedures provided adequate controls for the preparation, issue, and change of documents to ensure correct documents were being employed. The inspectors concluded the procedures adequately implemented the requirements of QAM Policy Q-06.1, *Document Control*.

The inspectors concluded the *WTP Document Administration*, *Project Records Management*, and *Field Project Document Control* procedures were being adequately implemented except for one example. The inspectors identified failure to incorporate FCR 24590-WTP-FCR-C-02-046 into four revisions of drawing 24590-HLW-DD-S13T-00008, Revision 5, as required by the *Engineering Drawings* procedure, as a Finding against QAM Policy Q-05.1, *Instructions, Procedures, and Drawings*, Section 3.1.1 regarding the requirement to follow procedures (Finding Number A-03-OSR-RPPWTP-005-F02).

1.3 Records Management (ITP I-131)

1.3.1 Inspection Scope

The inspectors examined the Contractor's records management procedures to confirm implementation of the requirements of QAM Policy Q-17.1, *Quality Assurance Record*, Revision 2. The inspectors examined issued procedures, drawings, FCRs, Calculations, DHR, QA Audit

and Surveillance Reports, Corrective Action Reports (CARs), Management Assessment Reports, and Supplier Quality Surveillance Inspection Reports, to assess whether those records were processed in accordance with the Contractor's records management procedures and QAM Policy Q-17.1. The inspectors interviewed responsible Contractor personnel and, in some cases, observed processing of the documents.

1.3.2 Observations and Assessments

The inspectors obtained copies of the following records from the Contractor's CONRAD EDMS and/or the original records stored in the Contractor's records file room. The inspectors examined the following records to verify implementation of QAM Policy Q-17.1 records management requirements:

- Supplier Quality Surveillance Inspection Report 24590-QL-YQA-DD00-300012
- Supplier Quality Surveillance Inspection Report 24590-QL-YQA-DD00-10037
- Supplier Quality Surveillance Inspection Report 24590-QL-YQA-SS01-20007
- Management Assessment Report 24590-WTP-MAR-PADC-02-002, *Annual Assessment of Employee Concerns Program Records*, dated June 3, 2002
- Management Assessment Report 24590-WTP-MAR-PADC-02-004, *Annual Assessment of Human Resources Records*, dated June 28, 2002
- Management Assessment Report 24590-WTP-MAR-PADC-02-001, *Annual Assessment of Training Records*, dated June 3, 2002
- Corrective Action Report 24590-WTP-CAR-QA-02-255, dated October 18, 2002
- Corrective Action Report 24590-WTP-CAR-QA-02-257, dated October 18, 2002
- QA Surveillance Report 24590-WTP-SV-QA-02-011, dated February 5, 2002
- QA Surveillance Report 24590-WTP-SV-QA-02-470, dated August 20, 2002
- QA Surveillance Report 24590-WTP-SV-QA-03-009, dated January 10, 2003
- QA Audit Report 24590-WTP-IAR-QA-02-011, *Audit Report of Project Document Control*, dated November 13, 2002
- Calculation 24590-HLW-Z0C-W14-00001, *HLW Vitrification Building Atmospheric Dispersion Coefficients*, Revision C, dated January 7, 2003

- Calculation 24590-LAW-Z0C-W14-00001, *LAW Vitrification Building Atmospheric Dispersion Coefficients*, Revision B, dated January 7, 2003
- Calculation 24590-LAB-M8C-C3V-00003, *Moisture Condensation Potential in Analytical Laboratory HVAC Exhaust Duct*, Revision A, dated January 7, 2003
- Calculation 24590-LAW-M0C-LFH-00007, *LAW Inert Fill Hoppers – Calculation of Gross Weight (GW) and Center of Gravity (CG)*, Revision A, dated December 24, 2002
- Drawing 24590-HLW-DB-S13T-00001, *HLW Vitrification Building Concrete General Arrangement*, Revision 8
- Drawing 24590-PTF-DG-S13T-00025, *Pretreatment Facility Structural Concrete Reinforcement Sections*, Revision 3
- Drawing 24590-HLW-DD-S13T-00008, *HLW Vitrification Building Concrete Embed and Anchorage Schedule and Details*, Revision 5
- FCR # 24590-WTP-FCR-C-02-046, approved June 14, 2002
- FCR # 24590-WTP-FCR-C-02-164, approved January 7, 2003
- FCR # 24590-WTP-FCR-C-02-138, approved October 28, 2002.

Discussions of the review of the above documents are described below:

Records Management Procedures

The inspectors examined the *WTP Document Administration*, *Project Records Management*, and *Field Project Document Control* procedures to verify the procedures identified records, specified the requirements and responsibilities for processing the records, and identified the final disposition of the records. The inspectors determined the document control procedures implemented the requirements of QAM Policy Q-17.1. Procedural inconsistencies of minor safety significance are discussed in the following sections of this inspection report.

Generation of Records

The inspectors examined the records listed above and assessed implementation of record generation requirements specified by QAM Policy Q-17.1 and the *WTP Document Administration*, *Project Records Management*, and *Field Project Document Control* procedures. The inspectors confirmed the records were legible, identifiable, and traceable to associated items and activities described by the records. However, the inspectors noted the CONRAD file of Supplier Quality Surveillance Inspection Report 24590-QL-YQA-SS01-20007 included illegible photographs but the hard copy original was legible. This concern is further discussed in the following "storage of records" section of this inspection report.

The inspectors interviewed three record generators (PADC Manager, Project Supplier Quality Manager, and Quality Assurance [QA] Audits and Surveillance Manager) and confirmed their review and approval of their respective documents ensured the records were legible, accurate, complete, appropriate to the work accomplished, and identifiable to the items or activities to which they applied.

Authentication of Records

The inspectors examined the records listed above and assessed implementation of record authentication requirements specified by QAM Policy Q-17.1 and the *Project Records Management* procedure. The inspectors interviewed PADC personnel and observed authentication of records. The PADC Manager informed the inspectors authentication of the records was the responsibility of the record originators and PADC verified the records were authenticated by means of valid signatures on the records. The inspectors confirmed the records listed above were signed and dated by authorized personnel and PADC verified the records were authentic by stamping and initialing the received records.

Classification, Retention, and Disposition of Records

The inspectors examined the *Project Records Management* procedure and interviewed the PADC Manager to assess implementation of record classification requirements specified by QAM Policy Q-17.1. The PADC Manager informed the inspectors the WTP Records Inventory and Disposition Schedule (RIDS) had not yet been established and all WTP records were being handled as lifetime records pending the establishment of the WTP RIDS.

Section 4.1.1 of QAM Policy Q17.1 provided specific requirements for "DOE/RW-0333P QARD Applications." Section 4.1.1.E of the policy required personnel training and qualification records associated with DOE/RW-0333P Quality Assurance Requirements and Description (QARD) applications to be classified as lifetime records. However, the inspectors noted Section 3.6.1 of the *Project Records Management* procedure stated "Until a RIDS is developed all project records will be kept for the life of WTP with the exception of personnel records which will be kept for 75 years after employee termination." No WTP personnel training or qualification records were 75 years old or had been disposed. The inspectors also noted Section 4.1.1F of QAM Policy Q17.1 required "Documents which are implementing documents as described in Policy Q-05.1 – *Instructions, Procedures and Drawings*" are classified as lifetime records for QARD applications. Section 3.6.1 of the *Project Records Management* procedure stated, "Documents which are implementing documents as described in QAM Policy Q-05.1, *Instructions Procedures and Drawings* shall be classified as nonpermanent records." As previously noted, all WTP records, including implementing documents, were being treated as lifetime records until the WTP RIDS is established. The PADC Manager acknowledged the *Project Records Management* procedure inconsistencies and stated the procedure would be changed to meet the of QAM Policy Q17.1 QARD record retention requirements. Follow-up to verify the procedure change is implemented will be tracked as AFI A-03-OSR-RPPWTP-005-A01.

Receipt Control of Records

The inspectors examined the *Project Records Management* procedure, interviewed the PADC Manager, and observed PADC processing of incoming records to assess implementation of record receipt control requirements specified by QAM Policy Q-17.1. The inspectors observed PADC personnel check a received FCR for legibility and completeness, and use the CONRAD EDMS for logging and updating the record status for the FCR. PADC personnel showed the inspectors where interim storage of records being processed were kept in the PADC file room vault when the records were not being processed overnight. The inspectors determined the requirements of QAM Policy Q-17.1 and the *Project Records Management* procedure were being implemented.

Storage and Retrieval of Records

The inspectors examined the *Project Records Management* procedure, interviewed the PADC Manager, and observed work activities in the PADC Hill Street and site records file rooms to assess implementation of record storage and retrieval requirements specified by QAM Policy Q-17.1.

The inspectors observed PADC reproduced a duplicate record file by electronically scanning the original records and storing the electronic scanned file in the CONRAD EDMS. The PADC Manager informed the inspectors the Contractor took credit for duplicate records stored in an alternate location as allowed by the *Project Records Management* procedure and QAM Policy Q-17.1. The use of dual storage reduced the atmospheric requirements for the storage facilities.

The inspectors assessed the fidelity of the scanned files with the original records and observed that photographs contained in some records were not adequately reproduced. The inspectors observed the hardcopy Surveillance Inspection Report 24590-WTP-SIR-PROC-02-214 included photographs that illustrated surveillance observations. The original hardcopy photographs were sufficiently discernible. However, both the screen view and the printout of the scanned surveillance report photographs stored in CONRAD were black and not discernible. The inspectors informed the QA Manager and PADC Manager of the observed condition. The QA Manager stated a Corrective Action Report (CAR) would be initiated to identify, evaluate, and correct the observed condition. The PADC Manager stated requirements would be added to the *Project Records Management* procedure to require records that cannot be satisfactorily scanned would be stored in accordance with the single storage requirements of QAM Policy Q-17.1. In addition a requirement would be added to define the user's responsibility to use the stored hard copy original file if the EDMS file was not discernible. The inspectors did not observe any safety consequences resulting from the poor visible quality of the EDMS file. The Contractor initiated CAR 24590-WTP-CAR-QA-03-013 to identify and correct the observed condition. Initiation of the CAR and clarification of procedure requirements resolved the inspectors' concerns. Follow-up to verify the procedure change is implemented will be tracked as AFI A-03-OSR-RPPWTP-005-A01.

The inspectors examined QA Surveillance Report 24590-WTP-SV-QA-02-470 and noted QA observed storage of radiographs on edge, in a bookcase, during the surveillance. The QA observation was noted in the surveillance report, in checklist line item 9, and was marked as

satisfactory. Section 3.5.1.2 of the *Project Records Management* procedure required "When the project has records such as radiographs, photographs, negatives, microfilm, magnetic media, they will be processed and stored to preclude damage from moisture, temperature, excessive light, electromagnetic fields, or stacking." The inspectors assessed records storage conditions of the PADC Hill Street records file room on January 14, 2003, and located the radiographs observed by QA during Surveillance 24590-WTP-SV-QA-02-470. The radiographs were stacked in a special file vault. The radiograph film interpretation sheets were in the radiograph sleeves and had not been processed into PADC. Fourteen additional radiographs were also stacked in the vault. An electric stapler and miscellaneous other non-records were also stored in the vault. QA initiated CAR-QA-03-002 to identify and correct the observed conditions. The observed radiograph storage conditions were of minor safety consequence. The Contractor corrected the observed conditions by storing the radiographs on edge in the file vault and removing the electric stapler and miscellaneous other non-records from the file vault.

The inspectors assessed records storage conditions at the Site PADC records processing and file room on January 14, 2003. The inspectors observed 15 radiographs stacked with rubber bands in a file basket. PADC personnel informed the inspectors the radiographs had been awaiting processing into the EDMS for approximately two weeks. PADC personnel stated the radiographs were returned to a designated area in the file room every night until they could be processed into PADC. The inspector informed QA of the observed condition. QA indicated corrective action for the observed condition would be included in CAR-QA-03-002.

The processing and storage of radiographs observed by the inspectors violated QAM Policy Q-17.1 and the *Project Records Management* procedure, Section 3.5.1.2, processing and storage requirements. The observed condition appeared to be of minor safety consequence, corrected promptly, and CAR-QA-03-002 was initiated by the Contractor. This issue met the non-cited Finding criteria in Inspection Administrative Procedure A-104, "Inspection Performance." This condition was identified as a non-cited Finding.

The inspectors examined a memorandum from the PADC Manager to File, *Authorized Personnel to Access Records Room*, dated January 6, 2003. The memorandum was the Contractor's records file room authorized access list. The inspectors confirmed, during observation of the Hill Street and Site records file room activities, PADC personnel limited unescorted access to the files to individuals on the list.

The *Project Records Management* procedure, Section 3.5.1.1, required records maintained by PADC shall be retrievable within three working days. The inspectors noted the majority of records were readily retrievable from the CONRAD EDMS. The inspectors also noted hard copy original files requested by the inspectors for review at the file rooms were readily retrievable.

Replacement of Records

The inspectors examined the *Project Records Management* procedure and interviewed the PADC Manager to assess implementation of record replacement requirements specified by QAM Policy Q-17.1. The inspectors found Section 3.5.13 of the *Project Records Management* procedure provided requirements for the replacement of damaged records that implemented QAM Policy

Q-17.1 requirements. The PADC Manager informed the inspectors a CAR would be initiated to address lost records should they occur. The PADC Manager informed the inspectors a requirement to write a CAR for lost record would be added to the *Project Records Management* procedure. Follow-up to verify the procedure change is implemented will be tracked as AFI A-03-OSR-RPPWTP-005-A01.

Except for the few minor examples noted above, the inspectors determined the *Project Records Management* procedure implemented the requirements of QAM Policy Q-17.1 and PADC personnel implemented the procedure requirements.

1.3.3 Conclusions

The inspectors concluded the Contractor's *WTP Document Administration*, *Project Records Management*, and *Field Project Document Control* procedures provided adequate controls for identifying, processing, storing, and dispositioning records.

With one exception, the inspectors concluded the Contractor adequately implemented the records management requirements of the *WTP Document Administration*, *Project Records Management*, and *Field Project Document Control* procedures. Processing and storage of radiographs contrary to QAM Policy Q-17.1 was identified as a non-cited Finding. The observed condition was of minor safety significance and promptly corrected by the Contractor. The Contractor initiated CAR-QA-03-002 to evaluate and provide additional corrective actions for the observed condition.

1.4 Closure of Inspection Items (Inspection Administrative Procedures [IAP] A-105 and A-106)

The following previously identified Inspection Items were reviewed to determine if they could be closed. The inspectors reviewed the Contractor's corrective actions, and other information provided. For the Finding, the inspectors verified by records review the corrective actions stated were appropriately completed.

1.4.1 (Closed IR-02-010-02-FIN) Failure to consistently retain revision history on each document, and failure to review the history before making additional changes. The Contractor provided their response to the Finding on October 9, 2002, by letter CCN 042485² and documented the discrepancy by CAR 24590-WTP-CAR-QA-02-0136 on July 10, 2002.

In the response to the Finding the Contractor stated procedure 24590-WTP-GPP-CPRO-001, *Production of River Protection Project –Waste Treatment Plant Procedures*, was revised to require procedures to include a requirement to have a "Reason for Revision" Section to document a brief history of the reason(s) for the procedure revisions. The procedure was also revised to require staff revising procedures to review the procedure history to ensure the proposed change(s) do not compromise the

² BNI letter from R. F. Naventi to R. J. Schepens, ORP, "Bechtel National, Inc. Response to Quality Assurance Assessment Inspection Report, IR-02-010," CCN-042485, dated October 9, 2002.

procedure history. The ORP accepted the corrective actions in a letter to the Contractor dated October 23, 2002.³

The inspectors determined procedure 24590-WTP-GPP-CPRO-001 had been superseded by procedure 24590-WTP-GPP-MGT-007, *WTP Document Administration*. The inspectors reviewed revision 0 of this procedure, dated October 31, 2002, and determined the new procedure continued to adequately address the revision history requirements discussed above. The inspectors then reviewed about 10 of the last procedures to have been revised to ensure revision histories were provided in the procedures as described in the procedure. One of the procedures reviewed, 24590-WTP-GPP-RTD-001, *Technology Development*, Revision 3, dated December 6, 2003, did not contain a revision history as required. However, the DHR, form 24590-MGT-F00005, for this procedure did contain a description of change addressing the reason for change. This DHR was maintained by Project Document Control and met the requirements of procedure 24590-WTP-GPP-MGT-007.

This Finding is closed.

1.4.2 (Closed IR-02-010-01-IFI) Verify implementation of procedure changes to address disposition of obsolete or superseded documents. During the conduct of the July 8-12, 2002, Quality Assurance Assessment (Inspection Report IR-02-010), the inspectors discovered procedure 24590-WTP-GPP-PDAC-002, *Project Records Management*, stated "When the old revision is no longer effective, the document may be returned to PDC for destruction, or the recipient may notify PDC, in writing, indicating that the document has been destroyed." The use of the word "may" in two places in this procedure made this non-mandatory, even though QAM Policy Q-06.1, Section 3.2, required, in part: "A method shall be established to ensure the disposition of obsolete or superseded documents so they are controlled and not used to perform work."

In order to correct the deficiency described above, the Contractor developed labels to affix to the WTP Document Distribution Receipt forms. The labels directed the controlled document owner to initial on the line provided as to whether they returned or destroyed the obsolete document. The inspectors had reviewed this corrective action and found it adequately addressed the deficiency. However, the inspectors assigned an inspection follow-up item to track the subsequent verification of implementation of the action taken by the Contractor to resolve this issue.

During this inspection, the inspectors reviewed 24590-WTP-GPP-PDAC-002, Revision 3, dated November 8, 2002. Section 3.5.5.1, *Controlled Distribution*, adequately addressed the QAM requirement described above by requiring recipients of controlled distribution to return signed transmittals to PDC within 10 days indicating old documents were destroyed. The inspectors met with PDC staff and determined the backlog of unreturned transmittal forms was small, and PDC staff was adequately tracking the backlog and taking appropriate actions to obtain the forms from delinquent recipients.

This item is closed.

³ ORP letter from R. J. Schepens to R. F. Naventi, BNI, "Acceptance of Bechtel National, Inc.'s (BNI) Response to Quality Assurance Assessment Report, IR-02-010, Finding," 02-OSR-0519, dated October 23, 2002.

1.4.3 (Closed IR-02-010-03-IFI) Verify implementation of the process for making pen and ink changes for expedited document changes. During the Quality Assurance Assessment discussed above, the Contractor had informed the inspectors their procedures did not contained provisions for expediting document changes. During that inspection, the Contractor drafted a change to procedure 24590-WTP-GPP-CPRO-001, *Production of River Protection project- Waste Treatment Plant Procedures*, to address expedited document changes. The inspectors reviewed the draft revision to the procedure to verify a method for pen and ink changes would be included. The draft revision included provision for such changes. Completion of the revision and implementation of the expedited change process was tracked as an inspection follow-up item.

During this inspection, the inspectors learned the Contractor implemented the expedited document change process and subsequently decided the process was being misused and was not needed at the current phase of design and construction. As discussed earlier, Procedure 24590-WTP-GPP-CPRO-001 was superseded by procedure 24590-WTP-GPP-MGT-007. Provision for expediting document changes were not carried over to the new procedure. Although the QAM provided for an expedited document change process, the Contractor's decision to delay implementing this option is not viewed as a violation of the QAM.

This item is closed.

2.0 EXIT MEETING SUMMARY

The inspectors presented preliminary inspection results to members of Contractor management at an exit meeting on January 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
 F. Beranek, Environmental, Safety, and Health Manager
 C. Camp, Deputy Project Document Control Supervisor
 D. Canazaro, QA Programs Manager
 Al Dausman, Civil, Structural, and Architectural (CSA) HLW Design Area Supervisor
 M. Ensminger, Quality Control Manager
 D. Foss, Safety Programs Engineer
 G. Hagen, Project Archives and Document Control Manager
 H. Henry, Document Control File Room Lead
 B. Klinger, QA Audits and Surveillance Manager
 B. Langsteiner, Senior Quality Engineer
 A. Lesko, Infrastructure Processes Supervisor
 M. Platt, Safety Programs Lead

W. Perry, Project Supplier Quality Manager
 M. Reitz, CSA HLW Design Discipline Specialist
 S. Richardson, Operations Procedures Lead
 G. Shell, Quality Assurance Manager
 K. Simon, CSA HLW Design Area Lead
 E. Smith, Safety Programs Engineer
 D. Threthewey, Field Document Control Supervisor

3.2 List of Inspection Procedures Used

Inspection Administrative Procedure A-105, "Inspection Performance"

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

Inspection Technical Procedure I-131, "Document Control and Records Management Program Inspection"

3.3 List of Items Opened, Closed, and Discussed

Opened

A-03-OSR-RPPWTP-005-A01	Follow-up	Verify procedure changes were made to (1) define EDMS; (2) require users to verify revisions through EDMS; (3) limit certain changes; (4) resolve lifetime record inconsistencies; (5) address poor quality; and (6) require CARs when records are lost.
A-03-OSR-RPPWTP-005-F02	Finding	Failure to incorporate FCR 24590-WTP-FCR-C-02-046 into the revision of drawing 24590-HLW-DD-S13T-00008, as required by the <i>Engineering Drawings</i> procedure.

Closed

IR-02-010-02-FIN	Finding	Failure to consistently retain revision history on each document, and failure to review the history before making additional changes.
IR-02-010-01-IFI	Follow-up	Verify implementation of procedure change to address disposition of obsolete or superseded documents.

IR-02-010-03-IFI	Follow-up	Verify implementation of the process for making pen and ink changes for expedited document changes.
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Discussed

None

3.4 List of Acronyms

BNI	Bechtel National, Inc.
CAR	Corrective Action Report
DCN	Design Change Notice
DHR	Document History Records
DOE	U.S. Department of Energy
EDMS	Electronic Data Management System
FCR	Field Change Request
HLW	High Level Waste
IAP	Inspection Administrative Procedure
ITP	Inspection Technical Procedure
LAW	Low Activity Waste
NCR	Nonconformance Report
ORP	Office of River Protection
OSR	Office of Safety Regulation
PADC	Project Archives and Document Control
QA	Quality Assurance
QAM	Quality Assurance Manual
QARD	Quality Assurance Requirements and Description
QC	Quality Control
RIDS	Records Inventory and Disposition Schedule
SRD	Safety Requirements Document
WTP	Waste Treatment and Immobilization Plant