



U.S. Department of Energy

~~OFFICE OF RIVER PROTECTION~~

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07-WTP-330

JAN 02 2008

Mr. L. J. Simmons, Project Manager
Bechtel National, Inc.
2435 Stevens Center Place
Richland, Washington 99354

Dear Mr. Simmons:

CONTRACT NO. DE-AC27-01RV14136 – TRANSMITTAL OF THE U.S. DEPARTMENT OF ENERGY, OFFICE OF RIVER PROTECTION (ORP) DESIGN ASSESSMENT REPORT NUMBER D-07-DESIGN-055: BECHTEL NATIONAL, INC. (BNI) TEMPORARY MODIFICATION (TM) PROGRAM IMPLEMENTATION ASSESSMENT

The ORP Design Oversight Team completed its assessment of BNI's TM Program implementation. The Assessment Team reviewed BNI applicable documents associated with the process for implementing and controlling TMs to the Waste Treatment and Immobilization Plant (WTP) design.

There were no Findings resulting from this assessment. Details of the Assessment Team activities and observations are provided in the assessment report (Attachment). Based on a review of the TM related documentation and after conducting field verification of TMs, the Assessment Team concluded that BNI's process for control of TMs is adequate. The roles and responsibilities of the participants are adequately defined.

The Assessment Team also evaluated the design and performance of TMs in relation to BNI design requirements and evaluated whether the appropriate safety and performance requirements are incorporated into the design. While there were no Findings resulting from this assessment, the Assessment Team identified a few areas where the TM process could be improved to preclude potential problems in the future. These are described in the attached assessment report.

If you have any questions, please contact me, or your staff may contact James H. Wicks, Director, WTP Engineering Division, (509) 376-3522.

Sincerely,

John R. Eschenberg, Project Manager
Waste Treatment and Immobilization Plant Project

WTP:PRH

Attachment

cc w/attach:
BNI Correspondence

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

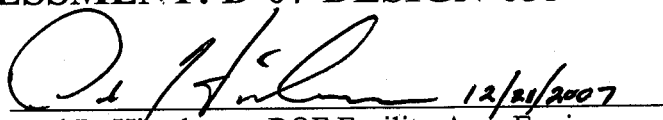
ASSESSMENT REPORT

BECHTEL NATIONAL, INC. TEMPORARY MODIFICATION PROGRAM IMPLEMENTATION ASSESSMENT

NOVEMBER 2007

DESIGN ASSESSMENT: D-07-DESIGN-055

Team Lead:


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Waste Treatment and Immobilization Plant Project

Team Members:

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EXECUTIVE SUMMARY

An assessment team evaluated the Contractor's (Bechtel National, Inc.) process for meeting contractual obligations associated with temporary modifications (TM) to the Waste Treatment and Immobilization Plant (WTP) design. The primary focus was to assess the Contractor's implementation of its process as it pertains to approval, installation, periodic evaluation, and removal of temporary modifications. The team paid particular attention to the adequacy of the temporary modification design and the roles and responsibilities of the requestor, cognizant engineer, Design Engineering, Environmental and Nuclear Safety, Construction Utilities Group, Preservation Maintenance, Construction Commissioning (Operations), and Authorizing Manager.

The TM process was in a very early stage of implementation. A total of 32 TMs had been approved and recorded in the project database at the time of this assessment. These TMs pertained to the installation of temporary power and had been installed prior to the development of the TM process. Each TM installed has been reviewed and approved by the cognizant engineer. All approved TMs except one pertained to non important-to-safety equipment.

The team identified no findings during its evaluation, but did observe and reveal the following:

Observation:

- Some of the TM documentation had editorial errors including fields with blank entries (instead of N/A). There were some late entries into fields after approval of the document, these entries were justifiable as a result of the field work having already been completed prior to the TM Program being establish. No follow up required.

Non Cited Finding:

- At the time of this assessment, there was not a TM in place for the nitrogen purge that was active on the chillers in the Chiller Compressor Plant. The current condition of the modification was deemed safe and technically acceptable as documented in a previously generated Project Issue Evaluation Reporting (PIER) report, condition report, and construction deficiency report. The Contractor has TM documentation in the approval process, but not completed at this time. This Non Cited Finding is entered into the Contractor's internal tracking system under 24590-WTP-PIER-MGT-07-1939, *Temporary Modifications to BOF Chillers*.

Assessment Follow Up Item:

- The Contractor has an established process via procedure 24590-WTP-GPP-CMNT-011, *Temporary Modification Control*, for implementing temporary design changes. The team concluded that, while this procedure has been adequate for the TMs currently installed, the procedure will likely need to be revised to ensure future project requirements are adhered to as the quantity of TM applied increases. The following was discussed with the Contractor; clarification and enhancement will be incorporated into a future revision of the TM procedure. These issues are entered into the Contractor's internal tracking system under 24590-WTP-PIER-MGT-07-1945, *Temporary Modification Removal Requirements*.
 - Future Environmental and Nuclear Safety issues.

BNI Temporary Modification Program Implementation Assessment (D-07-DESIGN-055)

- Establishing a defined process to supersede existing TM for changes in scope of work.
- Inspection process enhancements required during the TM closure process.
- Inconsistencies in use of the template categories of TM.

The team determined that TMs were identified, approved, documented, and controlled based on the reviews performed and interviews conducted. The roles and responsibilities are clearly explained, and involved Contractor personnel were adequately trained to perform the work.

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LIST OF TERMS

AB	Authorization Basis
BNI	Bechtel National, Inc.
CDR	construction deficiency report
CRPT	condition report
E&NS	Environmental and Nuclear Safety
OAR	Operational Awareness Review
ORP	Office of River Protection
PADC	Project Archives and Documentation Control
PIER	Project Issue Evaluation Reporting
PSA	Plant Service Air
RPP	River Protection Project
SC	safety class
SRD	Safety Requirements Document
SS	safety significant
TM	temporary modification
WTP	Waste Treatment and Immobilization Plant

1.0 INTRODUCTION

The U.S. Department of Energy, Office of River Protection's (ORP) mission is to retrieve and treat Hanford's tank waste and close the tank farms to protect the Columbia River. In order to complete one major component of this mission, ORP awarded Bechtel National Inc. (BNI) a contract for the design, construction, and commissioning of the Waste Treatment and Immobilization Plant (WTP) at the Hanford Site in Richland.

As part of its oversight responsibilities, ORP performs various assessments of BNI activities during the design and construction phase. This assessment evaluated the Contractor's implementation of its process for the approval, installation, periodic evaluation, and removal of temporary modifications (TM) to the WTP design.

2.0 BACKGROUND

During the project construction phase, the Contractor may install TMs to satisfy construction needs or to support, maintain, preserve, test, or limit operation. The WTP Safety Requirements Document (SRD) specifies that formal configuration management shall be applied to facility activities and that work shall be performed and controlled in accordance with pre-approved plans and procedures that clearly delineate responsibilities. The Contractor's process for control of TMs is expected to meet these requirements.

At the time of this assessment, the Contractor had established a procedure for controlling TMs, 24590-WTP-GPP-CMNT-011, *Temporary Modification Control*. The TMs in the Contractor's Project Archives and Documentation Control (PADC) system had actually been installed prior to implementation of the TM process. The Contractor has reviewed existing TMs to verify the TMs were adequately evaluated and properly documented. The Assessment Team was aware that TMs for supplying nitrogen to chillers units had been installed and that the cognizant engineer had reviewed and submitted appropriate documentation to Design Engineering for approval. In addition, the Contractor had previously generated 24590-WTP-CRPT-QA-06-027, *Construction has Wired Temporary Power to Various Permanent Plant Equipment*, to address establishment of the TM program including open issues. Consequently, the completed TM record had not been entered in the PADC at the time of this assessment, an Assessment Follow-up Item (AFI) for this issue is also being tracked by a Contractor's Project Issue Evaluation Reporting (PIER) report.

3.0 OBJECTIVES, SCOPE, AND APPROACH

3.1 Objective

The objectives of this assessment were to evaluate the adequacy and implementation of the Contractor's procedure, 24590-WTP-GPP-CMNT-011. The Assessment Team also evaluated the equipment modified and process used in relation to:

- Adequacy of the temporary modification design and implementation of the process defined in the implementing procedure. Special emphasis was placed on evaluating the roles and responsibilities of the requestor, cognizant engineer, Design Engineering,

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Environmental and Nuclear Safety, Construction Utilities Group, Preservation Maintenance, Construction Commissioning (Operations), and Authorizing Manager.

- WTP procedures controlling temporary modifications.
- Applicable manufacturer's engineered protection requirements.
- Review status of temporary modifications.

3.2 Scope

ORP conducted this oversight assessment within the guidelines of ORP M 220.1, *Integrated Assessment Program* and the ORP DI 220.1, *Conduct of Design Oversight*. ORP collected information from various BNI and DOE documents and conducted interviews with BNI design and QA staff. The approved design assessment plan, *Review Bechtel National, Inc., Temporary Modification Program Implementation Assessment*, is provided in Appendix A.

The Assessment Team also reviewed project plans, procedures, and records associated with the implementation and control of TMs to the approved WTP design.

3.3 Approach

The assessors searched the River Protection Project (RPP)-WTP online system to identify TM records in the PADC. Where indicated, the Assessment Team performed physical walkdowns. The following TM record entries were found:

Document Number	Title	Walkdown
24590-BOF-TMOD-CON-07-00001	TM-B-CUG-LVE-07-015	
24590-BOF-TMOD-CON-07-00002	TM-B-CUG-PSA-07-002	Yes
24590-BOF-TMOD-CON-07-00003	TM-B-CUG-PSA-07-003	Yes
24590-BOF-TMOD-CON-07-00004	TM-B-CUG-PSA-07-004	Yes
24590-BOF-TMOD-CON-07-00005	TM-B-CUG-PSA-07-005	Yes
24590-BOF-TMOD-CON-07-00006	TM-B-CUG-PSA-07-006	Yes
24590-BOF-TMOD-CON-07-00007	TM-B-CUG-PSA-07-007	
24590-BOF-TMOD-CON-07-00008	TM-B-CUG-PSA-07-008	
24590-BOF-TMOD-CON-07-00009	TM-B-CUG-CHW-07-009	Yes
24590-BOF-TMOD-CON-07-00010	TM-B-CUG-CHW-07-010	
24590-BOF-TMOD-CON-07-00011	TM-B-CUG-CHW-07-011	Yes
24590-BOF-TMOD-CON-07-00012	TM-B-CUG-CHW-07-012	Yes
24590-BOF-TMOD-CON-07-00013	TM-B-CUG-CHW-07-013	
24590-BOF-TMOD-CON-07-00014	TM-B-CUG-CHW-07-014	Yes
24590-BOF-TMOD-CON-07-00016	TM-B-CUG-LTE-07-016	
24590-BOF-TMOD-CON-07-00017	TB-B-CUG-LTE-07-017	
24590-BOF-TMOD-CON-07-00018	TM-B-CUG-LTE-07-018	
24590-BOF-TMOD-CON-07-00019	TM-B-CUG-LTE-07-019	
24590-BOF-TMOD-CON-07-00020	TM-B-CUG-LTE-07-020	
24590-BOF-TMOD-CON-07-00021	TM-B-CUG-LTE-07-021	
24590-BOF-TMOD-CON-07-00022	TM-B-CUG-LTE-07-022	
24590-BOF-TMOD-CON-07-00023	TM-B-CUG-LTE-07-023	

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Document Number	Title	Walkdown
24590-BOF-TMOD-CON-07-00024	TM-B-CUG-LTE-07-024	
24590-BOF-TMOD-CON-07-00025	TM-B-CUG-LTE-07-025	
24590-BOF-TMOD-CON-07-00026	TM-B-CUG-LTE-07-026	
24590-BOF-TMOD-CON-07-00027	TM-B-CUG-MVE-07-027	Yes
24590-BOF-TMOD-CON-07-00028	TM-B-CUG-LTE-07-028	
24590-BOF-TMOD-CON-07-00029	TM-B-CUG-LTE-07-029	Yes
24590-BOF-TMOD-CON-07-00031	TM-B-CUG-SND-07-031	
24590-BOF-TMOD-CON-07-00034	TM-B-CUG-LVE-07-034	
24590-BOF-TMOD-CON-07-00035	TM-B-CUG-MVE-07-035	Yes
24590-LAW-TMOD-CON-07-00003	TM-L-CUG-C5V-07-003	

The assessors selected all records in the database for review to verify that:

- Each TM is necessary, meets the criteria for a TM as identified in 24590-WTP-GPP-CMNT-011, Appendix B, "Temporary Modification Selection Criteria," and meets the codes and standards that apply to the affected system.
- The control record included sufficient documentation including various signoff as required by CMNT-011 with particular emphasis on signoff by Design Engineering and Environmental and Nuclear Safety (E&NS) consistent with the criteria in Appendix C, "Design Engineering Review Checklist," of CMNT-011.
- Special instructions, tests, or requirements related to the TM were included as necessary.

The Assessment Team conducted field walkdowns to verify that the Contractor's installation of the TMs in the field was consistent with the Contractor's approved TM process. Specifically, the assessment verified:

- Description of the equipment correctly matched the installed equipment.
- Number of tags installed was correct.
- Location of the tags was correct and consistent with the TM record.
- Quarterly inspections were performed and documented.

The assessors verified that the equipment description in the TM package correctly matched installed equipment, and that all TMs connect power to components necessary to allow equipment operation. Electrical cabinets were not opened as part of this assessment.

The assessors in the field were able to verify that space heaters for the C5V fan motors were energized and appropriate control circuitry was energized on the Plant Service Air (PSA) compressors for TMs TM-B-CUG-PSA-07-002 through 07-005. Power cords specified were appropriately sized. No deficiencies were found.

4.0 FINDINGS AND OBSERVATIONS

The team identified no findings during its evaluation, but did observe and reveal the following:

1. **Observation:**

D-07-DESIGN-055-O01: Some of the TM documentation had editorial errors including fields with blank entries (instead of N/A). There were some late entries into fields after approval of the document, these entries were justifiable as a result of the field work having already been completed prior to the TM Program being established. No follow up required.

Discussion: The assessors noted that in some TM records (e.g., 07-00006 and 07-00007) handmade changes were inserted on the document after the TM was approved. Dates for other handmade insertions/changes were not clear. Although the changes themselves may be minor, the assessors considered this practice to contradict requirements for maintaining quality records. In discussions with the Contractor, the Contractor stated that scope of such handmade changes was limited to correcting the components numbering and that other handmade changes were included in the form when the form was approved. All editorial errors discovered during the assessment have been corrected.

2. **Non Cited Finding:**

D-07-DESIGN-055-N02: At the time of this assessment, there was not a TM in place for the nitrogen purge that was active on the chillers in the Chiller Compressor Plant. The current condition of the modification was deemed safe and technically acceptable as documented in a previously generated PIER, condition report (CRPT), and construction deficiency report (CDR). The Contractor has TM documentation in the approval process, but not completed at this time. This Non Cited Finding is entered into the Contractor's internal tracking system under 24590-WTP-PIER-MGT-07-1939, *Temporary Modifications to BOF Chillers*. No follow up required.

3. **Assessment Follow Up Items:**

D-07-DESIGN-055-A03: The Contractor has an established process via procedure 24590-WTP-GPP-CMNT-011, *Temporary Modification Control*, for implementing temporary design changes. The team concluded that, while this procedure has been adequate for the TMs currently installed, the procedure will likely need to be revised to ensure future project requirements are adhered to as the quantity of TM applied increases. The following were discussed with the Contractor; clarification and enhancement will be incorporated into a future revision of the TM procedure. These issues are entered into the Contractor's internal tracking system under 24590-WTP-PIER-MGT-07-1945, *Temporary Modification Removal Requirements*.

- Future Environmental and Nuclear Safety (E&NS) issues.

Discussion: All current TM records in the PADC pertained to temporary electrical power provisions. None of the changes were to safety class (SC) or safety significant (SS) equipment. The assessors verified that E&NS was contacted in accordance with the procedure to determine if the modifications affected the safety basis. The process for documenting that E&NS was contacted for a proposed change lacks sufficient detail to identify who in E&NS was contacted and no basis is provided explaining why E&NS screening is not required. Even though the entries in block 11 (E&NS Screening) as "AB/Permit Screening not required" is technically defensible for the cases reviewed, the TM record does not provide any basis for this conclusion.

24590-WTP-GPP-CMNT-011 states that the cognizant engineer notifies ENS and determines if E&NS is a required reviewer of the TM control form. There is no documentation of the basis for the conclusion that Authorization Basis (AB)/permit screening is not required, and no signoff by E&NS is provided to support this. In the absence of a documented rationale or an E&NS signoff, the assessors considered the evaluation record inadequate and the procedure deficient in this respect. The Contractor has stated that a "categorical exclusion" in accordance with 24590-WTP-GPP-SREG-002, *Authorization Basis Maintenance*, will be developed documenting the basis for why the safety basis is not negatively impacted. TMs that are not within the bounds of the categorical exclusion will be reviewed by E&NS. The assessors considered this an acceptable approach. ORP will follow up on this item to ensure that the stated changes are incorporated in a future revision of 24590-WTP-GPP-CMNT-011.

- Establishing a defined process to supersede existing TM for changes in scope of work.

Discussion: The process described in 24590-WTP-GPP-CMNT-011, *Temporary Modification Control*, does not address how changes to TMs are to be controlled. TM 07-00027 pertains to temporary power to MVE-XFMR-91001A, MVE-XFMR-91001B, MVE-XFMR-91002A, and MVE-XFMR-91002B. The documentation for TM 07-00027 seems to imply that the TM was installed, then removed and verified as removed. However, TM 07-00035 processed during the same timeframe as TM 07-00027, pertains to temporary power for the same transformers. The Contractor stated that 07-00035, approved prior to closure of TM 07-00027, included the scope of 07-00027 and added additional scope. The Contractor's method for making this type of change is to initiate and install a new TM (in this case 07-00035) and remove the old (07-00027). In accordance with the procedure, the assessors consider this approach to inaccurately reflect the currently defined process in the template form directions. The completion of installation and removal activities implies complete actual physical installation and physical removal in the field. This did not actually take place, rather TM 07-00027 was subsumed in TM 07-00035. The Contractor did a good job documenting the change, including additional comments added to the superseded TM.

- Inspection process enhancements required during the TM closure process.

Discussion: The current TMs are applied against Construction responsible commodities. When a TM is applied that is outside of Construction's normal installation and inspection scope of work, there needs to be a process to ensure that anything restored during TM removal, such as internal wiring, is restored to its as received condition. The as received condition must be in accordance with manufacturers instructions and any applicable inspection points, including Quality Control personnel, are completed prior to closure of the TM. Under the current procedure, there are blocks that would accommodate these types of inspections, but they are not being used. The Contractor has stated that they would typically use a work package to document the inspection points, not the TM record. Resolution of the issue as described is a coordination effort between Construction and the group

managing the TMs for them. To date no TM have been restored, therefore no associated closure inspections have been missed.

- Inconsistencies in use of the template categories of TM.

Discussion: Inconsistencies were noted in the designation of temporary systems. For the TM classification "Type" (Block 5 on the form), most TMs are designated as "Temporary Power," some are designated both "Temporary Power" and "Electrical," and one is designated as "Mechanical." The one designated Mechanical actually pertains to temporary power to C5V fan motor coil heater. The assessors concluded that there is a lack of consistency in the designation types on Block 5 of the TM control form. The Contractor recognized that its procedure 24590-WTP-GPP-CMNT-011 does not provide adequate guidance in this respect and requires modification.

4.1 Review of Previously Identified Items

The Assessment Team also reviewed the current status of a previously identified item related to TMs. In August 2006, DOE ORP identified a problem with respect to design and installation of a TM for BOF Chillers temporary nitrogen supply. The TM was poorly designed and installed without adequate engineering review. Multiple issues related to this problem were documented in Operational Awareness Review (OAR) Number 475 and discussed with a senior construction engineer. The OAR discussed the following issues:

- Attachment points for the purge rig were not identified on the work order.
- Preservation work order specified skill of the craft without any explanation for building the purge rig.
- Vendor's review was not obtained.
- Very large nitrogen bottle bank was being used without overpressure protection for equipment being supplied with nitrogen.

A maintenance walkdown in October 2006 questioned the technical basis (blowdown, accumulation, capacity) for relief valve and noted that there was no indication of calibration on the relief valve, or pressure regulator installed. These issues were forwarded to the cognizant engineer for consideration. Subsequently, TM control forms have been developed by the Contractor and are in the Contractor's review process, these forms include 24590-BOF-TMOD-CON-07-000037 through -000042. As referenced earlier in this assessment report, this Non-Cited Finding (D-07-DESIGN-055-N02) has been entered into the Contractor's internal tracking system.

4.2 Other Items Observed in the Field During TM Assessment

While performing this TM assessment, the assessors identified the following two additional issues not directly part of the TM process. These two issues resulted in two findings as discussed in detail in the surveillance report S-07-WCD-RPPWTP-004-46.

BNI Temporary Modification Program Implementation Assessment (D-07-DESIGN-055)

1. The Contractor recently installed structural steel supports for cable trays per drawing 24590-CM-POA-MPGP-00001-01-00200. This activity resulted in violating the working space requirement for Lighting Panel Board LTE-PNL-86001A. The width of the working space between the steel support and transformer LTE-XFMR-86001 was less than the required 30 inches in accordance with the National Electric Code. Lighting Panel Board LTE-PNL-86001A was installed by a subcontractor in 2005. The Contractor agreed with this violation and issued CDR 24590-WTP-CDR-CON-07-0428 to track this deficiency.
2. After identifying the above Finding, the ORP inspector reviewed inspection records of the installation and initial energization of the Main Distribution Panel Board LVE-PNL-86001, Transformer LTE-XFMR-86001, and Lighting Panel Board LTE-PNL-86001A. A review of the documented record showed that the Contractor's process failed to ensure all deficiencies associated with Main Distribution Panel Board LVE-PNL-86001 had either been corrected or considered before concluding electrical equipment was safe to energize.

See S-07-WCD-RPPWTP-004-46 for follow up actions regarding the two issues above. No further actions or reference are included in the TM Assessment.

5.0 CONCLUSIONS

Although the assessors identified isolated deficiencies, as previously described, the TM process itself was found to be appropriately implemented in accordance with the Contractor procedures. Contractor's staff presents themselves as professional and open for suggestion on how to improve. Opportunity for enhancement of the process has been discussed with the Contractor, in the future these AFIs will be reviewed by ORP for adequacy.

6.0 REFERENCES AND PERSONNEL CONTACTED

6.1 Contractor's Personnel Contacted

Dawn, Kammenzind, Quality Assurance
Cynthia Beaumier, Cognizant System Engineering Manager
Mike Vaughn, Cognizant Engineer
Eric Fitzgerald, Cognizant Engineer
Steve Churchill, C&T Maintenance
Tim Dallas, C&T Maintenance

6.2 References

24590-WTP-GPP-CMNT-011, *Temporary Modification Control*, Rev. 1, April 23 2007

24590-WTP-GPP-SREG-002, *Authorization Basis Maintenance*, Rev. 16, August 31, 2007

ORP DI 220.1, *Conduct of Design Oversight*, Rev. 1, U.S. Department of Energy, Office of River Protection, January 2006

BNI Temporary Modification Program Implementation Assessment (D-07-DESIGN-055)

ORP M 220.1, *Integrated Assessment Program*, Rev. 5, U.S. Department of Energy, Office of
River Protection, September 5, 2007

S-07-WCD-RPPWTP-004-46, *Review of Electrical Installations at the Water Treatment Facility*,
November 19, 2007

Appendix A. DESIGN ASSESSMENT PLAN

**U.S. DEPARTMENT OF ENERGY (DOE), OFFICE OF RIVER
PROTECTION (ORP)**

DESIGN ASSESSMENT PLAN

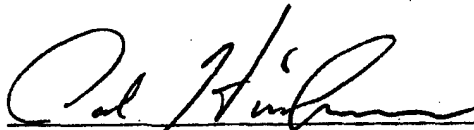
**REVIEW
BECHTEL NATIONAL, INC.**

**TEMPORARY MODIFICATION PROGRAM
IMPLEMENTATION ASSESSMENT**

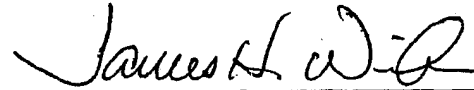
November 2007

Design Assessment: D-07-DESIGN-055

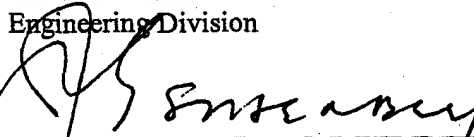
Team Lead:

 10/29/2007
Paul R. Hirschman, BOF Facility Area Engineer
Waste Treatment and Immobilization Plant Project
Engineering Division

Concurrence:

 5 Nov 2007
James H. Wicks, Director
Waste Treatment and Immobilization Plant Project
Engineering Division

Approval:

 11/5/07
John R. Eschenberg, Project Manager
Waste Treatment and Immobilization Plant Project

1.0 BACKGROUND, PURPOSE, AND OBJECTIVES

1.1 Background

The U.S. Department of Energy (DOE), Office of River Protection's (ORP) mission is to retrieve and treat Hanford Site tank waste and close the tank farms to protect the Columbia River. In order to complete one major component of this mission, ORP awarded Bechtel National, Inc. (BNI) a contract for the design, construction, and commissioning of the Waste Treatment and Immobilization Plant (WTP) at the Hanford Site in Richland, Washington. In order to meet the requirements of WTP contract, DE-AC27-01RV14136, BNI (the Contractor) has established a process to document temporary design changes to permanent or construction utilities equipment supporting beneficial use and/or equipment maintenance activities to satisfy long- and short-term storage requirements. This process applies both before and after turnover from construction to startup.

1.2 Purpose

The purpose of this assessment is to evaluate the implementation of the Temporary Modification Program and the effectiveness of WTP's programs for controlling temporary changes during construction. Such changes include temporary modifications, drawings, and associated documentation. This assessment will include a review of the status of temporary modifications, effectiveness of the temporary modification program, and any associated testing.

1.3 Objectives

The objectives of this assessment are to evaluate the temporary modification designs, and the effectiveness of the implementation. The equipment and process will be evaluated in relation to:

1. Adequacy of the temporary modification design, including roles and responsibilities of the Requestor, Cognizant Engineer, Design Engineering, Environmental and Nuclear Safety, Construction Utilities Group, Preservation Maintenance, Construction Commissioning (Operations), and the Authorizing Manager
2. WTP procedures
3. Applicable manufacturer's engineered protection requirements
4. Review status of temporary modifications

2.0 SCOPE

This oversight shall be conducted within the guidelines of ORP M 220.1, *Integrated Assessment Plan*, Rev. 4, and the ORP DI 220.1, "Conduct of Design Oversight," Rev. 1, issued January 26, 2006.

The scope of this assessment will include BNI and vendor design documents such as, drawings, specifications, test results, status board, and change documentation.

Temporary Modification Program Implementation Assessment (D-07-DESIGN-055)

3.0 PREPARATION

1. Identify the ORP assessment team.
2. Notify BNI that ORP will be conducting the Temporary Modification Program Implementation assessment, number D-07-DESIGN-055.
3. Identify documents to review, including procedures, associated implementation paperwork, and vendor requirements.
4. Identify contract requirements and contractor design requirements.
5. Prepare and implement schedule of assessment activities.

4.0 EVALUATE AND IDENTIFY, RESOLVE, OR DOCUMENT ISSUES

The ORP Assessment Team will evaluate BNI documentation in relation to WTP procedures and BNI design requirements. During ORP's evaluation, lines of inquiry (LOI) will be documented and given to BNI's point of contact (POC) for resolution. BNI's responses to LOI questions will be utilized as reference information during the Assessment Team's evaluation.

4.1 WTP Contract Requirements DE-AC27-01RV14136 and WTP Design Documents

The documents provided by BNI, during this design assessment, will be reviewed in relation to WTP Contract requirements and BNI WTP design documentation, as follows:

Requirement	Section/Paragraph (and as applicable)
WTP Contract DE-AC27-01RV14136	<ul style="list-style-type: none">• C.6 Standard 3 Design• C.6 Standard 4 Construction, Procurement, and Acceptance Testing
Temporary Modification Control 24590-LAB-3PS-AELE-T0002	<ul style="list-style-type: none">• Section 2.0 Scope

5.0 REPORTING

The Assessment Team Lead will periodically brief ORP management and the Contractor POC during the assessment. The Team Lead, with assistance from the team, will prepare a final assessment report that summarizes review activities, results, conclusions, and recommendations.

6.0 SCHEDULE OF ACTIVITIES

Table 1 lists the schedule of assessment activities.

7.0 DOCUMENTATION

The final assessment report shall contain the sections and content as summarized in ORP DI 220.1, "Conduct of Design Oversight," Rev. 1, issued January 26, 2006. The final report will be formally issued once draft review comments have been resolved. Any Findings, Assessment Follow-up Items, or Open Issues identified in the report will be assigned a number, and tracked to resolution through Corrective Action Reporting System (CARS) by DOE ORP. These assigned numbers shall also be tracked to resolution by the Contractor through the Correspondence Control Number (CCN) that will be assigned to the transmittal of the report from ORP to the Contractor.

8.0 CLOSURE

The Assessment Team Leader, with concurrence of the WED Division Director, shall confirm that Findings, Assessment Follow-up Items, and/or Open Items from this review are adequately resolved.

Table 1 – Schedule

Activity Description	Responsibility	Complete By
Develop and Issue Design Oversight Plan.	Team Lead	10/31/2007
Identify team members.	Team Lead	10/31/2007
Provide written notification to Contractor of the planned oversight review and include as an attachment the Design Oversight Plan.	Team Lead	11/01/2007
Design Oversight Entrance Meeting/Commence the Assessment.	ORP Team	11/14/2007
Obtain Information/Conduct Assessment/Preliminary feedback on assessment.	ORP Team	11/21/2007
Prepare Draft Design Oversight Report.	ORP Team	12/07/2007
BNI Factual Accuracy Check of ORP Design Oversight Draft Report.	ORP Team Lead and BNI	12/13/2007
Resolve comments and issue Final Report.	ORP Team	12/21/2007

NOTES:

1. Schedule subject to change through Assessment Team Lead.
2. Team Lead will notify BNI POC of schedule changes as applicable

Task# ORP-WTP-2007-0325

E-STARS^R Report
Task Detail Report
01/02/2008 1255

TASK INFORMATION

Task#	ORP-WTP-2007-0325		
Subject	(Concur 07-WTP-330) TRANSMITTAL OF THE U.S. DEPARTMENT OF ENERGY, OFFICE OF RIVER PROTECTION (ORP) DESIGN ASSESSMENT REPORT NUMBER D-07-DESIGN-055: BECHTEL NATIONAL, INC. (BNI) TEMPORARY MODIFICATION (TM) PROGRAM IMPLEMENTATION ASSESSMENT		
Parent Task#		Status	CLOSED 01/02/2008
Reference		Due	
Originator	Licht, Sarah (Licht, Sarah)	Priority	High
Originator Phone	(509) 376-6611	Category	None
Origination Date	12/21/2007 1427	Generic1	
Remote Task#		Generic2	
Deliverable	None	Generic3	
Class	None	View Permissions	Normal
Instructions	<p>Hard copy of the correspondence is being routed for concurrence. Once you have reviewed the correspondence, please approve or disapprove via E-STARS and route to the next person on the list. Thank you.</p> <p>bcc: MGR RDG file WTP OFF file WTP RGD file M. K. Barrett, AMD T. M. Williams, AMD J. R. Eschenberg, WTP P. R. Hirschman, WTP J. H. Wicks, WTP</p>		

ROUTING LISTS

1	Route List	Inactive
	<ul style="list-style-type: none"> ● Hirschman, Paul R - Review - Concur - 12/21/2007 1508 <i>Instructions:</i> ● Wicks, James H - Review - Cancelled - 01/02/2008 1255 <i>Instructions:</i> ● Eschenberg, John R - Approve - Approved - 01/02/2008 1224 <i>Instructions:</i> 	

ATTACHMENTS

Attachments	<ol style="list-style-type: none"> 1. 07-WTP-330.PRH.Attach.Temp Mod Process Assessment Fnl Rpt 12-21.doc 2. 07-WTP-330.PRH.Simmons.doc
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COLLABORATION**RECEIVED**

JAN 02 2008

DOE-ORP/ORPCC

Task# ORP-WTP-2007-0325
COMMENTS
<i>No Comments</i>
TASK DUE DATE HISTORY
<i>No Due Date History</i>
SUB TASK HISTORY
<i>No Subtasks</i>

-- end of report --

Task# ORP-WTP-2007-0325

E-STARS[®] Report
 Task Detail Report
 12/21/2007 0229

TASK INFORMATION			
Task#	ORP-WTP-2007-0325		
Subject	(Concur 07-WTP-330) TRANSMITTAL OF THE U.S. DEPARTMENT OF ENERGY, OFFICE OF RIVER PROTECTION (ORP) DESIGN ASSESSMENT REPORT NUMBER D-07-DESIGN-055: BECHTEL NATIONAL, INC. (BNI) TEMPORARY MODIFICATION (TM) PROGRAM IMPLEMENTATION ASSESSMENT		
Parent Task#		Status	Open
Reference		Due	
Originator	Licht, Sarah (Licht, Sarah)	Priority	High
Originator Phone	(509) 376-6611	Category	None
Origination Date	12/21/2007 1427	Generic1	
Remote Task#		Generic2	
Deliverable	None	Generic3	
Class	None	View Permissions	Normal
Instructions	Hard copy of the correspondence is being routed for concurrence. Once you have reviewed the correspondence, please approve or disapprove via E-STARS and route to the next person on the list. Thank you. bcc: MGR RDG file WTP OFF file WTP RGD file M. K. Barrett, AMD T. M. Williams, AMD J. R. Eschenberg, WTP P. R. Hirschman, WTP J. H. Wicks, WTP		
ROUTING LISTS			
1	Route List		Active
		<ul style="list-style-type: none"> ● Hirschman, Paul R - Review - Awaiting Response - Due Date <i>12/21/2007</i> <i>Instructions:</i> ● Wicks, James H - Review - Awaiting Response - Due Date <i>12/21/2007</i> <i>Instructions:</i> ● Eschenberg, John R - Approve - Awaiting Response - Due Date <i>12/21/2007</i> <i>Instructions:</i> 	
ATTACHMENTS			
Attachments	1. 07-WTP-330.PRH.Attach.Temp Mod Process Assessment Fnl Rpt 12-21.doc 2. 07-WTP-330.PRH.Simmons.doc		
COLLABORATION			
COMMENTS			
No Comments			

Task# ORP-WTP-2007-0325
TASK DUE DATE HISTORY
<i>No Due Date History</i>
SUB TASK HISTORY
<i>No Subtasks</i>

-- end of report --