



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

P.O. Box 450, MSIN H6-60  
Richland, Washington 99352

05-WTP-227

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

Dear Mr. Henschel:

CONTRACT NO. DE-AC27-01RV14136 – INSPECTION REPORT A-05-AMWTP-RPPWTP-003 – ON-LOCATION INSPECTION REPORT FOR THE PERIOD JULY 1, 2005, THROUGH SEPTEMBER 30, 2005

- References:
1. ORP letter from R. J. Schepens to J. P. Henschel, BNI, "Waste Treatment and Immobilization Plant (WTP) Weld Program Concerns," 05-WTP-172, dated August 10, 2005.
  2. ORP letter from R. J. Schepens to J. P. Henschel, BNI, "Waste Treatment and Immobilization Plant (WTP) Weld Program Concerns," 05-WTP-224, dated October 5, 2005.

This letter forwards the results of the U.S. Department of Energy (DOE), Office of River Protection (ORP) review of Bechtel National, Inc. (BNI) construction performance of the Waste Treatment and Immobilization Plant (WTP) for the period July 1, 2005, through September 30, 2005. There were three Findings requiring responses by BNI identified during this inspection period. Briefly, these findings address:

- Failure to perform and/or document required 5% nondestructive examinations of outer clamshell pipe welds;
- Performing autogenous welding (welding without weld rod) without an approved welding procedure; and
- Signing off a concrete pour card indicating piping installations were complete when inspections associated with pipe bending had not been performed.

The enclosed Notice of Finding (Enclosure 1) describes these issues and contains the instructions for responding.

In addition to responding to the three Findings discussed above, BNI is requested to provide a written response describing the actions it has taken or plans to take to address poor performance regarding temporary facility fire alarm and emergency lighting testing and maintenance.

Mr. J. P. Henschel  
05-WTP-227

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Inspections indicate activities in these important life-safety areas are not well established or implemented. Similar problems were identified with equipment preservation and maintenance during the previous inspection period and your written response should address efforts BNI is taking to improve overall performance in this area.

Although most construction activities have been performed acceptably, several issues have been identified indicating management attention is warranted. As documented in the two referenced letters, the WTP welding program has performance issues requiring attention. Furthermore, although BNI safety statistics indicate improvement in OSHA recordable injury rate and lost work day case rates, several recent incidents/near misses at the site indicate continued management vigilance is appropriate regarding safety performance. BNI will be asked to discuss their corrective actions to address these and other concerns during the inspection exit scheduled for October 20, 2005. A summary of the inspections is documented in the enclosed inspection report (Enclosure 2).

If you have any questions, please contact me, or your staff may call John R. Eschenberg, Project Manager, Waste Treatment and Immobilization Plant Project, (509) 376-3681.

Sincerely,

Roy J. Schepens  
Manager

WTP:JWM

Enclosures (2)

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

## NOTICE OF FINDING

Section C, “Statement of Work,” Standard 7, “Environment, Safety, Quality, and Health,” of Contract DE-AC27-01RV14136, dated December 11, 2000, between the U.S. Department of Energy (DOE) and Bechtel National, Inc. (BNI), defined BNI’s responsibilities under the Contract as they related to conventional non-radiological worker safety and health; radiological, nuclear, and process safety; environmental protection; and quality assurance.

Standard 7, Section (e)(3) of the Contract required BNI to develop and implement a Quality Assurance (QA) program, supported by documentation that describes the overall implementation of QA requirements. The documentation shall identify the procedures, instructions, and manuals used to implement BNI’s QA program within BNI’s scope of work. For radiological, nuclear, and process safety, QA is to be conducted in accordance with 10 CFR 830.120. BNI’s QA program was documented in 24590-WTP-QAM-QA-01-001, “Quality Assurance Manual (QAM),” Revision 5a, dated November 8, 2004.

QAM Policy Q-05.1, *Instructions, Procedures, and Drawings*, Section 3.3.1 states activities affecting quality shall be prescribed by and performed in accordance with documented instructions, procedures, and drawings.

Standard 7, Section (d) of the Contract requires BNI to develop and implement an integrated, standards-based, safety management program to ensure radiological, nuclear, and process safety requirements are defined, implemented, and maintained. BNI is required to conduct work in accordance with BNI-developed and DOE-approved Safety Requirements Document (SRD).

Section H26, *Environmental Permits*, of the Contract requires BNI to comply with the applicable requirements of the Hanford Facility’s Dangerous Waste portion of the Resource Conservation and Recovery Act permit for the Treatment, Storage, and Disposal of Dangerous Waste (WA7890008967) (Dangerous Waste Permit). Section III.10.E.9.d.iii of the permit states, “The Permittees shall provide the design criteria (reference to codes and standards, load definitions, and load combinations, materials of construction, and analysis/design methodology) and typical design details for the support of the ancillary equipment [WAC 173-303-640(3)(a), WAC 173-303-640(3)(f), WAC173-303-806(4)(c)(i)].” The Dangerous Waste Permit lists BNI Specification 24590-WTP-Per-CON-02-001, *Installation of Tank Systems and Miscellaneous Treatment Systems*.

During performance of assessments of BNI’s construction activities, conducted from July 1, 2005, through September 30, 2005, DOE Office of River Protection (ORP) identified the following Findings:

- 1) SRD Safety Criterion 4.2-2 states that piping will be installed in accordance with American Society for Mechanical Engineers (ASME) B31.3-96. B31.3 Section 328.2.1 requires welding procedures to be qualified in accordance with ASME

Section IX. ASME Section IX, Section QW-256 – GTAW, paragraph 404.14 indicates the deletion or addition of filler metal is an essential variable. Section QW-251.2, Essential Variables, defines essential variables as those in which a change, as described in the specific variables, is considered to affect the mechanical properties of the weldment, and shall require requalification of the Welding Procedure Specification (WPS).

Contrary to the above, during revision of the Weld Control Manual, WPS P8-T-o was revised removing the note that autogenous (welding without adding filler metal) tack welds were acceptable. The supporting Procedure Qualification Record's (PQRs) 1041, 1184, and 1444 did not allow welding without adding filler metal. Nevertheless, prior to revising this manual, BNI had been using this WPS to perform numerous autogenous tack welds. Failure to comply with the requirements of SRD Safety Criterion 4.2-2 is considered a Finding (A-05-AMWTP-RPPWTP-003-F02).

- 2) Construction Procedure – 24590-WTP-GPP-CON-3203, *Concrete Operations (Including Supply)*, Appendix 3, *Concrete Pour Card*, Step 25 states the initials for embedded piping are releases only, indicating embedded items have been accepted in accordance with the applicable discipline's procedures.

Contrary to the above, Concrete Pour Card ACC-011A was signed off for "Embedded Piping" by the field piping engineer on September 21, 2005, thus indicating all piping was installed, tested, inspected, and the Aboveground Piping Inspection Records (APIRs) were complete. However, three APIR's 24590-LAB-APIR-CON-05-0118, 0213, and 0216 were not signed off as "Activity Complete" as required by the Aboveground Piping Installation procedure Appendix 2a, "Activities Complete", note 13 which states "The RFE prints, signs, and dates indicating that all activities associated with the work scope of the record have been completed."

Failure to ensure all APIRs were completed before signing off the Pour Card is considered a Finding for failure to follow procedures as required by Quality Assurance Manual Policy Q-05.1, Section 3.1.1 regarding the requirement to follow procedures (A-05-AMWTP-RPPWTP-003-F04).

- 3) BNI Specification 24590-WTP-Per-CON-02-001, *Installation of Tank Systems and Miscellaneous Treatment Systems.*, Paragraph 1.1 references "ASME B31.3" for pipe installation. ASME B31.3 paragraph 341.4.1(b)(1) states; "In-process examination in accordance with paragraph 344.7 may be substituted for all or part of the radiographic or ultrasonic examination on a weld for weld basis if specified in the engineering design or specifically authorized by the Inspector". Paragraph 344.7.1 states; "In-process examination comprises examination of the following, as applicable: (a) joint preparation and cleanliness; (b) preheating; (c) fit-up, joint clearance, and internal alignment prior to joining; (d) variables specified by the joining procedure, including filler material; and (1) (for welding) position and electrode; (e) (for welding) condition of the root pass after cleaning – external and, where accessible, internal – aided by liquid penetrant or magnetic particle examination when specified in the

engineering design; (f) (for welding) slag removal and weld condition between passes; and (g) appearance of the finished joint.” ASME paragraph 344.2.2 requires these in-process inspections to be documented.

BNI’s engineering organization chose to use in-process examination in lieu of all required radiographic or ultrasonic examinations for outer clamshell welds on site coaxial pipe installations.

Contrary to the above, BNI was not adequately performing and/or documenting in-process inspections as required by ASME B31.1. Failure to meet these requirements is considered a Finding against Section H26, *Environmental Permits*, of the DOE Contract (A-05-AMWTP-RPPWTP-003-F05.)

The Manager, DOE ORP, requests BNI to provide, within 30 days of the date of the cover letter that transmitted this Notice, a reply to the Findings above. The reply should include: (1) admission or denial of the Findings; (2) the reason for the Findings, 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 in your authorization bases will be achieved. Where good cause is shown, consideration will be given to extending the requested response time.

U.S. DEPARTMENT OF ENERGY  
Office of River Protection

INSPECTION: On-location Inspection Report for the Period July 1, 2005, through  
September 30, 2005

REPORT NO.: A-05-AMWTP-RPPWTP-003

FACILITY: Bechtel National, Inc. (BNI)

LOCATION: 2435 Stevens Center  
Richland, Washington 99352

DATES: July 1 through September 30, 2005

INSPECTORS: J. McCormick-Barger, Construction Inspection Lead  
J. Bruggeman, ORP Facility Representative  
S. Pfaff, ORP Facility Representative  
B. Harkins, ORP Facility Representative  
J. Christ, ORP Facility Representative  
M. Evarts, Team Member  
D. Wallace, Team Member  
R. Taylor, Team Member

APPROVED BY: M. Thomas, Operations and Commissioning Team Leader  
Waste Treatment and Immobilization Plant Project

## INSPECTION REPORT

### Introduction

During the period July 1, 2005, through September 30, 2005, the U.S. Department of Energy (DOE), Office of River Protection (ORP), Waste Treatment and Immobilization Plant (WTP) Project conducted inspections of important-to-safety (ITS) and non-ITS (Balance-of-Plant) activities of the construction of the WTP. These inspections were documented on inspection notes and maintained electronically. There were 92 inspections of various construction activities summarized below. A summary listing of the inspection notes is included in back of this report. Copies of the inspection notes are available upon request.

### Significant Observations and Conclusion

- BNI had installed forms, reinforcement, and embed steel (FRE), and/or batched, placed, consolidated, tested, and monitored concrete in accordance with engineering specifications and the Safety Requirements Document (SRD). (Inspection Notes 003-02, 003-14, 003-20, 003-41, 003-43, 003-46, 003-66, 003-67, 003-70, 003-71, 003-78, 003-79, 003-89, and 003-90.)
- Although many electrical inspections identified acceptable work, inspections continue to identify electrical installation errors associated with both temporary and permanent electrical installations. Examples included:
  1. Failure to connect equipment grounding to the grounding electrode at the 100-amp building T-3A disconnecting means;
  2. Installing a #4 AWG bonding jumper when a #2 AWG bonding jumper was required;
  3. The grounded terminal bar in Low Activity Waste (LAW) panel board PDP-019 was isolated from the enclosure;
  4. An existing metal-clad cable was not metallically joined to the Substation 7 switchgear enclosure; and
  5. Disconnects for T-13 power were not labeled as required.

Note: The items listed above were corrected prior to the end of the inspection period. (Inspection Notes 003-08, 003-24, 003-53, 003-63, 003-74, 003-75, 003-82, 003-83, and 003-86.)

- Pneumatic and hydraulic shop and field testing of installed (or to be installed) piping was conducted in accordance with site procedures and specifications, and code requirements. Piping was installed in accordance with design and specification requirements. (Inspection Notes 003-03, 003-04, 003-07, 003-11, 003-19, 003-33, 003-34, 003-35, 003-60, 003-61, 003-64, 003-65, 003-69, and 003-84.)
- Acceptance testing of Fireproofing Building 213 Operability/Interface of Radio Fire Alarm Reporter 2326, conducted by the Hanford Fire Marshal, was performed successfully. (Inspection Note 003-05.)

- Backfill, compaction, and testing activities for the ITS Switchgear buildings 88A and 88B were performed in accordance with engineering specifications and procedures. (Inspection Note 003-06.)
- Assured Grounding testing was being performed in accordance with the site procedure and met the 2002 National Electric Code. (Inspection Note 003-09.)
- Fall Protection issues were identified at the LAW facility. The Contractor took actions to address this safety issue. (Inspection Note 003-10.)
- Control of installation of electrical cable trays and supports was generally adequate. However, SETROUTE cards did not annotate support numbers or drawings (including revision numbers) for supports. The Contractor stated they would address this issue by revising the applicable procedure to reflect the requirement to include support numbers and drawing references. (Inspection Note 003-12.)
- Grout placements of LAW column base plates and bogie rail sole plate placements were performed in accordance with site requirements. (Inspection Notes 003-13 and 003-22.)
- LAW Structural Steel was being installed in accordance with site requirements. (Inspection Note 003-15.)
- LAW bogie rail anchorage welding activities were being performed in accordance with site requirements. (Inspection Note 003-16.)
- Removal of LAW intumescent fire proof coating for welding on steel was being performed in accordance with the Job Hazards Analysis (JHA) and technical requirements. (Inspection Note 003-18.)
- Rigging and installation of the Pretreatment Facility (PTF) door RWH-DOOR-00005 was performed in an acceptable manner. Two issues were noted following placing the door and concerned falling object control during welding of dog attachments to embeds to secure the door, and fire hazards during welding. (Inspection Note 003-21.)
- Welding of High Level Waste (HLW) stainless steel melter offgas treatment process system piping was performed in accordance with site requirements. (Inspection Note 003-23.)
- Qualifications of two welders at the Analytical Laboratory (LAB) facility were acceptable except they were qualified to the wrong year of the American Society for Mechanical Engineers (ASME) Section IX Code. The Contractor was taking actions to address this issue. (Inspection Note 003-25.)
- Site Quality Assurance (QA) personnel were verifying the quality of work in progress for compliance with the applicable governing documents. One observation was identified regarding QA personnel using Contractor procedures as acceptance criteria for assessments



rather than authorization basis requirements when applicable. (Inspection Note 003-26.)

- Inspection, testing, and maintenance of the fire alarm system and water-based fire protection systems was being performed using a combined checklist attached to a work order to comply with the requirements of National Fire Protection Association (NFPA) 72 and 75. However the checklist referenced the incorrect NFPA document and the checklist did not capture all the requirements of NFPA 72 and 75. Also, personnel performing the inspections did not meet the training requirements of NFPA 72 and 75. Requirements to check gauges and valves every five years were not captured in the Contractor's tracking system. Follow-up to ensure the Contractor addresses these issues will be tracked as Assessment Follow-up Item **A-05-AMWTP-RPPWTP-003-A01**. (Inspection Note 003-28.)
- The Contractor took adequate actions to address a PTF event where a worker's hand was injured during rigging operations for installation of pipe in the PTF hot cell roof area. (Inspection Note 003-29.)
- A PTF emergency drill was well developed and performed. (Inspection Note 003-30.)
- The Contractor took adequate actions to address a PTF event where a worker was slightly injured when a Copus blower plywood housing fell during a rigging operation. (Inspection Note 003-31.)
- The Contractor's investigation of a Building T-40 Ground Fault Circuit Interrupter receptacle arc was adequate. (Inspection Note 003-32.)
- The Contractor's Lessons Learned Program procedure was found to be adequate in describing the process and presenting the expectation for program implementation. However, several opportunities for improvement were noted regarding entering WTP lessons learned into the Contractor's database, encouraging lessons learned from both manual and non-manual staff, and using lessons learned during work planning. (Inspection Note 003-36.)
- Welding activities for ammonia transfer piping met site requirements. However an issue regarding transferring material identification to cut pieces of pipe was identified. Specifically, heat numbers were being transferred but not purchase order numbers. Because the site does not have a heat number log book, heat number transfer in its self did not allow easy retrievability of material certification traceability. The Contractor took action to address this issue by adding the purchase order number to the materials being cut. (Inspection Note 003-37.)
- The construction site Worker Industrial Health & Safety injury logs were up to date and contained the necessary information. The Contractor was conducting periodic reviews to ensure that they were reporting injuries as required. The site Worker Industrial Health & Safety reporting program adequately implemented the applicable requirements of 29 CFR 1904. (Inspection Note 003-38.)

- PTF rooms P-0111 and P-0112 liner plate was being installed in accordance with site requirements. (Inspection Notes 003-39 and 003-51.)
- Dritherm granular insulation was being placed around the LAB radioactive (RAD) transfer line in accordance with site specifications and the special instructions. One concern was identified regarding the safety practice when opening the insulation sacks by reaching under the 1200 lb sacks. (Inspection Note 003-40.)
- Material storage at the marshaling yard and construction site was being performed in an acceptable manner. (Inspection Note 003-42.)
- The Contractor was adequately overseeing the efforts of suppliers Diversified Metal Products, Inc. and Premier Technology, Inc. Both suppliers were adequately implementing their quality assurance programs and had good welding and fabrication programs in place to support the Contractor's procurement requests. One concern was identified at both suppliers regarding the suppliers' use of Original Equipment Manufactures (OEMs) to calibrate measuring and testing equipment (M&TE) when the suppliers' approved calibration sub-contractor was unable to perform the calibration services. In both suppliers' cases, the OEMs were not on the suppliers' Approved Suppliers List or otherwise evaluated to determine if they (the OEMs) had adequate calibration programs. The Contractor took actions to address this issue both specifically and generically with other WTP suppliers. (Inspection Notes 003-44 and 003-45.)
- The Environmental Department was performing the functions and responsibilities assigned in accordance with established procedures regarding environmental regulatory requirements and permit conditions. Department personnel were knowledgeable of the requirements identified in the procedures and were aware of the underlying functions and responsibilities essential to a successful Environmental Program. (Inspection Note 003-47.)
- Welding of Balance of Facilities RAD Transfer piping installations near the HLW were being performed in accordance with site requirements. (Inspection Note 003-48.)
- Welding and inspection activities associated with tank skirt to ring beams in area 22 of the PTF were being performed in accordance with site requirements. (Inspection Note 003-49.)
- The Contractor was taking adequate actions to investigate and prevent recurrence of the LAW dropped drift pin event. However, the Contractor failed to notify the on call Facility Representative of the event critique that occurred following the August 10 event. (Inspection Note 003-50.)
- LAW structural steel high strength bolt tension testing was being performed in accordance with site requirements. (Inspection Note 003-52.)
- Rigging, transporting, upending (as required), and setting of vessels UFP-VSL-00062A, B, and C, FEP-VSL-00017A and B, and RLD-VSL-000164 and 165 were performed in

accordance with site requirements. (Inspection Notes 003-54 and 003-76.)

- Erection of Waste Treatment Building 86 was being performed in accordance with site requirements. (Inspection Note 003-55.)
- C2 supply ductwork in the southwest corner of the LAW building +3' elevation was successfully leak tested in accordance with site requirements. (Inspection Note 003-58.)
- A number of discrepancies were identified with the Contractor's JHA program regarding JHA records not being turned into Project Document Control as required; some JHA's contained vague requirements; some JHA's were not signed by the Safety Assurance Manager as required; some records had documentation errors; and some similar JHA's had inconsistent requirements. (Inspection Note 003-59.)
- Changes reflected in revision 18 of the Contractor's Weld Control Manual met ASME Section IX requirements. During review of the manual, an issue was identified regarding the Contractor using an autogenous weld process (welding without weld rod) when the weld procedure specification was not qualified for this process. This was considered a Finding for failure to meet the requirements of SRD Section 4.2-2 (**A-05-AMWTP-RPPWTP-003-F02**). The Contractor wrote a Corrective Action Report to address this issue. (Inspection Note 003-72.)
- The Contractor's investigation and corrective actions associated with a LAW fall protection system deployment (painter fell through shrink wrap at +28' elevation) was adequate. (Inspection Note 003-73.)
- Dritherm granular insulation was being placed around piping near the LAW in accordance with design requirements. (Inspection Note 003-85.)
- The Contractor was not rigorously implementing its life-safety code requirements for emergency lighting. The Contractor was not performing systematic emergency lighting need reviews and were not always installing lighting as needed. Testing was not being conducted as required, failed lighting was not being replaced in a timely manner, test procedures were not adequate, and records were not complete. Follow-up to evaluate corrective actions to these issues will be tracked as assessment follow-up item **A-05-AMWTP-RPPWTP-003-A03**. (Inspection Note 003-87.)
- The ITS Switchgear Building bare cooper grounding ring and 10' ground rod installations were being performed in accordance with requirements. (Inspection Note 003-91.)
- During bending of a drain pipe associated with line LAB-RLD-WU02292001 at the LAB, a responsible field piping engineer failed to complete required inspections and fill out the Aboveground Piping Inspection Reports. Field engineering later found other procedural violations associated with the pipe installation for Concrete Pour Card ACC-011A. Failure to follow procedures is a Finding against Quality Assurance Manual Policy Q-05.1, Section 3.1.1 regarding the requirement to follow procedures (**A-05-AMWTP-RPPWTP-003-F04**).

The Contractor issued Construction Deficiency Report 24590-WTP-CDR-05-0185 and Corrective Action Report 24590-WTP-CAR-QA-05-225 to document these issues. (Inspection Note 003-88.)

- The Contractor was not performing and/or documenting the ASME B31.3 required 5% nondestructive examinations for clamshell welds associated with the LAB imbedded piping and buried waste transfer piping. This is a Finding against the Contract requirement to comply with the Dangerous Waste Permit (**A-05-AMWTP-RPPWTP-003-F05**). (Inspection Note 003-92.)

List of Assessment Items Opened, Closed, and Discussed:

Opened

A-05-AMWTP-RPPWTP-003-A01	Assessment Follow-up Item	Follow-up on Contractor actions to address Fire Protection System testing, and maintenance concerns. (Inspection Note 003-28.)
A-05-AMWTP-RPPWTP-003-F02	Finding	Failure of the Contractor to perform welds in accordance with approved weld Procedures. (Inspection Note 003-72.)
A-05-AMWTP-RPPWTP-003-A03	Assessment Follow-up Item	Follow-up on Contractor actions to address emergency lighting installation, testing and maintenance concerns. (Inspection Note 003-87.)
A-05-AMWTP-RPPWTP-003-F04	Finding	Failure of the Contractor to follow procedures regarding the requirement to complete inspections of pipe binding before signing off a pour card. (Inspection Note 003-88.)
A-05-AMWTP-RPPWTP-003-F05	Finding	Failure of the Contractor to perform and/or document in-process inspections of clamshell piping per ASME B 31.3. (Inspection Note 003-92.)

Closed

A-04-AMWTP-RPPWTP-004-A02	Assessment Follow-up Item	Follow-up on Contractor actions to resolve a welding issue regarding welding galvanized conduit supports on the side of the stainless steel Demineralized Water Storage Tank (DIW-TK-00004). (Inspection Note 003-27.)
A-05-AMWTP-RPPWTP-001-A02	Assessment Follow-up Item	Follow-up on Contractor actions to address lack of Original Equipment Manufacturer to be on the approved suppliers list when Calibrating M&TE. (Inspection Note 003-80.)
A-05-AMWTP-RPPWTP-001-A06	Assessment Follow-up Item	Follow-up on Contractor actions to address NEC violation regarding lack of suitable openings in the back of HLW -21' elevation lighting fixtures. (Inspection Note 003-57.)

A-05-AMWTP-RPPWTP-002-A01	Assessment Follow-up Item	Follow-up on Contractor actions to address the HVAC sub-contractor quality control failure to enter the latest revision of the drawing used for acceptance on the work package. (Inspection Note 003-68.)
A-05-AMWTP-RPPWTP-002-A08	Assessment Follow-up Item	Follow-up on Contractor actions to address Steam Plant electrical issues. (Inspection Note 003-56.)
A-05-AMWTP-RPPWTP-002-A09	Assessment Follow-up Item	Follow-up on Contractor actions to address a LAW welding inspection issue regarding BNI specifying and using visual acceptance criteria NCIG-1 rather than AWS-D1.1 (required by PSAR, Section 2.4.1). (Inspection Note 003-62.)
A-05-AMWTP-RPPWTP-002-F12	Finding	Failure of BNI to adequately control PTF design drawings and other documents used in the field to perform structural steel and pipe welding. (Inspection Note 003-81.)
A-05-AMWTP-RPPWTP-002-A16	Assessment Follow-up Item	Follow-up on Contractor actions to address electrical issues associated with the T-46 mobile office building temporary power. (Inspection Note 003-17.)

Interim Review

A-05-AMWTP-RPPWTP-001-A05	Assessment Follow-up Item	Follow-up on Contractor actions to address 15 electrical issues regarding the Fuel Oil Pump House Building 81 and Fire Water Pump House Buildings 84A & 84B and subcontractor electrical oversight issues. (Inspection Note 003-77.)
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List of Inspection Notes Issued During the Assessment Period:

<u>Inspection Note Number</u>	<u>Inspection Subject</u>
A-05-AMWTP-RPPWTP-003-01	Intermech Controlled document program.
A-05-AMWTP-RPPWTP-003-02	FRE inspection of HLW Slab 1001.
A-05-AMWTP-RPPWTP-003-03	Pressure testing of PTF piping.
A-05-AMWTP-RPPWTP-003-04	Pressure testing of LAB piping.
A-05-AMWTP-RPPWTP-003-05	Test of Radio Fire Alarm Reporter Bldg 213.
A-05-AMWTP-RPPWTP-003-06	Backfill and compaction at ITS Switchgear bldg 88.
A-05-AMWTP-RPPWTP-003-07	Pressure testing of LAB piping.
A-05-AMWTP-RPPWTP-003-08	Closure of A-05-AMWTP-RPPWTP-002-A08.
A-05-AMWTP-RPPWTP-003-09	Assured equipment grounding program review.
A-05-AMWTP-RPPWTP-003-10	Safety walk-down of LAW-fall protection issue.
A-05-AMWTP-RPPWTP-003-11	Pressure testing of BOF piping.
A-05-AMWTP-RPPWTP-003-12	Review of installations of cable trays supports.
A-05-AMWTP-RPPWTP-003-13	LAW grout placement of column base plates.
A-05-AMWTP-RPPWTP-003-14	FRE inspection of LAB slab 0013C.
A-05-AMWTP-RPPWTP-003-15	LAW structural steel installation inspection.
A-05-AMWTP-RPPWTP-003-16	Welding inspection of LAW bogie rail anchorages.
A-05-AMWTP-RPPWTP-003-17	Closure of A-05-AMWTP-RPPWTP-002-A16.
A-05-AMWTP-RPPWTP-003-18	Removal of Intumescent fire proofing for welding.
A-05-AMWTP-RPPWTP-003-19	Pressure testing of PTF piping.
A-05-AMWTP-RPPWTP-003-20	FRE inspection of HLW walls 1110 and 1111.
A-05-AMWTP-RPPWTP-003-21	Rigging of PTF Door RWH-DOOR-00005.
A-05-AMWTP-RPPWTP-003-22	Grouting of LAW bogie rail sole plates.
A-05-AMWTP-RPPWTP-003-23	Welding of HLW -21" piping.
A-05-AMWTP-RPPWTP-003-24	Electrical inspection of PTF temporary power.
A-05-AMWTP-RPPWTP-003-25	LAB welder qualification review.
A-05-AMWTP-RPPWTP-003-26	Review of construction QA activities.
A-05-AMWTP-RPPWTP-003-27	Closure of A-04-AMWTP-RPPWTP-004-A02.
A-05-AMWTP-RPPWTP-003-28	BOF fire alarm system maintenance.
A-05-AMWTP-RPPWTP-003-29	PTF hand injury during pipe rigging.
A-05-AMWTP-RPPWTP-003-30	PTF EP drill.
A-05-AMWTP-RPPWTP-003-31	PTF injury follow-up –Copus blower plywood.
A-05-AMWTP-RPPWTP-003-32	LAW GFCI receptacle arc event.
A-05-AMWTP-RPPWTP-003-33	Pressure testing of LAB piping.
A-05-AMWTP-RPPWTP-003-34	BOF fire services water overhead wet pipe test.
A-05-AMWTP-RPPWTP-003-35	Pressure testing of bldg 88A and 88B piping.
A-05-AMWTP-RPPWTP-003-36	Lessons learned program review.
A-05-AMWTP-RPPWTP-003-37	BOF ammonia piping fabrication.
A-05-AMWTP-RPPWTP-003-38	Industrial Health and Safety Reporting.
A-05-AMWTP-RPPWTP-003-39	PTF liner plate installation room P-0111.
A-05-AMWTP-RPPWTP-003-40	Dritherm insulation installation – BPF LAB.
A-05-AMWTP-RPPWTP-003-41	Concrete placement LAB slab 15.
A-05-AMWTP-RPPWTP-003-42	Material storage at marshaling yard and site.
A-05-AMWTP-RPPWTP-003-43	FRE inspection of LAB slab 15.

A-05-AMWTP-RPPWTP-003-44 Diversified Metal Products, Inc. inspection.  
A-05-AMWTP-RPPWTP-003-45 Premier Technology, Inc. Inspection.  
A-05-AMWTP-RPPWTP-003-46 FRE inspection of LAB slab 0009A.  
A-05-AMWTP-RPPWTP-003-47 Environmental field monitoring.  
A-05-AMWTP-RPPWTP-003-48 BOF-HLW RAD transfer line welding.  
A-05-AMWTP-RPPWTP-003-49 PTF vessel skirt to ring beam welding.  
A-05-AMWTP-RPPWTP-003-50 LAW dropped drift pin event.  
A-05-AMWTP-RPPWTP-003-51 PTF liner plate installation room P-0112.  
A-05-AMWTP-RPPWTP-003-52 LAW bolt tension measuring.  
A-05-AMWTP-RPPWTP-003-53 Electrical inspection of BOF temporary power.  
A-05-AMWTP-RPPWTP-003-54 Rigging and placement of PTF vessels.  
A-05-AMWTP-RPPWTP-003-55 Erection of Water Treatment bldg 86.  
A-05-AMWTP-RPPWTP-003-56 Closure of A-05-AMWTP-RPPWTP-002-A08.  
A-05-AMWTP-RPPWTP-003-57 Closure of A-05-AMWTP-RPPWTP-001-A06.  
A-05-AMWTP-RPPWTP-003-58 LAW +3' C2 supply ductwork test.  
A-05-AMWTP-RPPWTP-003-59 Hazard Identification and Analysis program review.  
A-05-AMWTP-RPPWTP-003-60 Pressure testing of LAB piping.  
A-05-AMWTP-RPPWTP-003-61 Pressure testing of LAW piping.  
A-05-AMWTP-RPPWTP-003-62 Closure of A-05-AMWTP-RPPWTP-002-A09.  
A-05-AMWTP-RPPWTP-003-63 Electrical inspection of CB&I temp power.  
A-05-AMWTP-RPPWTP-003-64 Pressure testing of LAB piping.  
A-05-AMWTP-RPPWTP-003-65 Pressure testing of BOF piping.  
A-05-AMWTP-RPPWTP-003-66 FRE inspection of LAB slab 009B.  
A-05-AMWTP-RPPWTP-003-67 Concrete placement of LAB slab 009B.  
A-05-AMWTP-RPPWTP-003-68 Closure of A-05-AMWTP-RPPWTP-002-A01.  
A-05-AMWTP-RPPWTP-003-69 Pressure testing of LAB piping.  
A-05-AMWTP-RPPWTP-003-70 FRE inspection of bldg 88A slab.  
A-05-AMWTP-RPPWTP-003-71 Concrete placement of bldg 88A slab.  
A-05-AMWTP-RPPWTP-003-72 Weld Control Manual review.  
A-05-AMWTP-RPPWTP-003-73 LAW fall protection deployment incident.  
A-05-AMWTP-RPPWTP-003-74 Electrical inspection of LAW temporary power.  
A-05-AMWTP-RPPWTP-003-75 Electrical inspection of PTF temporary power.  
A-05-AMWTP-RPPWTP-003-76 Rigging and placement of LAB vessels.  
A-05-AMWTP-RPPWTP-003-77 Part closure of A-05-AMWTP-RPPWTP-001-A05  
A-05-AMWTP-RPPWTP-003-78 FRE inspection of LAB slab 0013.  
A-05-AMWTP-RPPWTP-003-79 Concrete placement of LAB slab 0013.  
A-05-AMWTP-RPPWTP-003-80 Closure of A-05-AMWTP-RPPWTP-001-A02.  
A-05-AMWTP-RPPWTP-003-81 Closure of A-05-AMWTP-RPPWTP-002-F12.  
A-05-AMWTP-RPPWTP-003-82 Electrical inspection of LAW 75 KVA temp power.  
A-05-AMWTP-RPPWTP-003-83 Electrical inspection of Substation #7 maintenance.  
A-05-AMWTP-RPPWTP-003-84 Pressure testing of BOF piping.  
A-05-AMWTP-RPPWTP-003-85 Inspection of Dritherm insulation at BOF.  
A-05-AMWTP-RPPWTP-003-86 Electrical inspection of 25 KVA LAW temp. power.  
A-05-AMWTP-RPPWTP-003-87 Review of emergency lighting program.  
A-05-AMWTP-RPPWTP-003-88 Inspection of pipe bending in LAB basemat.  
A-05-AMWTP-RPPWTP-003-89 FRE installation of LAB slab 0011A.  
A-05-AMWTP-RPPWTP-003-90 Concrete placement of LAB slab 0011A.



A-05-AMWTP-RPPWTP-003-91  
A-05-AMWTP-RPPWTP-003-92

Electrical inspection of grounding ring in 88A/B.  
Inspection of clamshell welding and NDE.