U.S. Department of Energy
Office of River Protection
P.O. Box 450, MSIN H6-60
Richland, Washington 99352

JAN 05 2007

06-ESQ-153

Mr. W. S. Elkins, Project Director
Bechtel National, Inc.
2435 Stevens Center Place
Richland, Washington 99354

Dear Mr. Elkins:

CONTRACT NO. DE-AC27-01RV14136 – ASSESSMENT REPORT A-06-ESQ-RPPWTP-009, "ASSESSMENT OF INDUSTRIAL HYGIENE (IH) PROGRAM AND OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) INJURY/ILLNESS RECORDKEEPING," SEPTEMBER 25 THROUGH 29, 2006

This letter forwards the results of the U.S. Department of Energy, Office of River Protection (ORP) assessment of the Bechtel National, Inc. (BNI) IH and OSHA injury/illness recordkeeping programs conducted from September 25 through 29, 2006, attachment 1. The Team identified three Findings and three Observations.

In the area of IH the Team concluded the contractor's IH program met requirements with limited exceptions. Three Findings were identified and three Observations were made. Finding A-06-ESQ-RPPWTP-009-F01 resulted from BNI's failure to perform self-assessments of the Waste Treatment and Immobilization Plant (WTP) IH program. Finding A-06-ESQ-RPPWTP-009-F02 describes BNI's failure to document its exposure assessment strategy. Finding A-06-ESQ-RPPWTP-009-F03 dealt with the construction hearing protection program that did not include all exposed construction personnel. The Observations dealt with weaknesses in exposure risk communication, lack of an ergonomic plan, and the lack of an effective cold stress monitoring and control program.

In the area of injury/illness recordkeeping the Team concluded that reporting of work-related injuries by BNI had been accurate in the last six month period. For the April through September 2006 period, ORP found all cases had been reported in accordance with OSHA requirements. ORP identified a Finding because BNI failed to provide documented evidence of WTP subcontractor oversight, as required by BNI procedures. Attachment 2 provides the details of the injury/illness record keeping review.

Please provide a formal response to the Findings within 30 days of receipt of this letter. The response should include corrective actions planned or taken, actionees, and due dates.

JAN 05 2007

If you have any questions, please contact me, or your staff may call Robert C. Barr, Director, Office of Environmental Safety and Quality, (509) 376-7851.

Sincerely,

Roy J. Schepens, Manager
Office of River Protection

ESQ:PRH

Attachments: (2)

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BNI Correspondence

Attachment 1
06-ESQ-153
A-06-ESQ-RPPWTP-009

U.S. DEPARTMENT OF ENERGY
Office of River Protection
Environmental Safety and Quality

ASSESSMENT:	U.S. Department of Energy, Office of River Protection, Office of Environmental Safety and Quality, Assessment of Bechtel National, Inc's Waste Treatment and Immobilization Plant Industrial Hygiene Program for Construction Safety
REPORT:	A-06-ESQ-RPPWTP-009
FACILITY:	Bechtel National, Inc. Waste Treatment and Immobilization Plant
LOCATION:	Hanford Site
DATES:	September 25 through 29, 2006
ASSESSORS:	Charles Olaiya, Assessor Stephen Bump, Assessor
APPROVED BY:	Patrick P. Carier, Team Lead Verification and Confirmation Team

Executive Summary

The U.S. Department of Energy (DOE), Office of River Protection assessed Bechtel National, Inc. (BNI) Industrial Hygiene (IH) program from September 15 through 29, 2006.

While conducting their assessment the Team reviewed the IH implementing procedures, reviewed training lesson plans, performed field walk downs of the major facilities and construction activities, and interviewed personnel involved in the IH program to ensure that contract requirements as specified in DOE O RL/REG 2000-04, "Industrial Hygiene and Safety Regulatory Plan," were adequately implemented.

The Team concluded the BNI IH program met contractual requirements with the three exceptions. The Team identified three Findings and made three Observations. The Findings dealt with: 1) the lack of a self-assessment plan; 2) the BNI IH program not have a documented exposure assessment strategy; and 3) the BNI hearing conservation program not including all personnel.

The Team made the following Observations: 1) the BNI exposure risk communication program was neither formalized nor clearly defined in the contractor's safety and health documents; 2) BNI had no ergonomic plan; and 3) BNI did not have an effective cold stress monitoring and control program. These Observations are opportunities for improvement.

The Team identified the following two IH good practices: the IH staff made effective use of Job Hazard Analysis and the practice of Safety Task Analysis Risk Reduction Talk and BNI IH professionals spent considerable time assessing job hazards in the field.

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List of Acronyms

ACGIH	American Conference of Governmental Industrial Hygienists
BNI	Bechtel National Inc.
CFR	Code of Federal Regulations
DOE	U.S. Department of Energy
ES&H	Environmental, Safety and Health
ESQ	Environmental Safety and Quality
IH	Industrial Hygiene
JHA	Job Hazard Analysis
LAW	Low-Activity Waste
OEL	Occupational Exposure Limit
OSHA	Occupational Safety and Health Administration
PPE	Personal Protective Equipment
SA	Safety Assurance
STARRT	Safety Task Analysis Risk Reduction Talk
TLV	Threshold Limit Value
WTP	Waste Treatment and Immobilization Plant

U.S. Department of Energy (DOE), Office of River Protection, Office of Environmental Safety and Quality (ESQ), Assessment of Bechtel National, Inc.'s (BNI) Waste Treatment and Immobilization Plant (WTP) Industrial Hygiene (IH) Program for Construction Safety

Scope

The scope of the BNI WTP IH program assessment was limited to the contractor's IH program elements described in RL/REG-2000-04, Revision 1, Appendix A, "Industrial Hygiene and Safety Regulatory Plan." This plan references the applicable sections of Title 29 Code of Federal Regulations (CFR) Part 1926, "Safety and Health Regulations for Construction," (29 CFR 1926) and Title 29 CFR Part 1910 "Occupational Safety and Health Standards" (29 CFR 1910). This assessment evaluated the compliance of the BNI IH program elements as applied to contractual and regulatory IH requirements.

Details

The IH Team conducted a series of interviews with workers, safety professionals, and the DOE facility representative; performed walkthroughs of the main WTP construction facilities, Low-Activity Waste (LAW), High-Level Waste, Analytical Laboratory, and Pretreatment; and observed several jobs being performed including welding, sandblasting, and painting. The IH program elements reviewed included:

Program Documentation

The Team reviewed IH documentation including plans, procedures, IH records, and training lesson plans. Specific lesson plans included: Industrial Safety Orientation, General Environmental, Safety & Health (ES&H) Requirements, Respiratory Protection, Hearing Conservation, Bloodborne Pathogen, and Dead Mouse & Bird Disposal. Specific records reviewed included: Personal Air Monitoring Data Sheets for Chromium VI, four Job Hazard Analysis (JHA) worksheets, two Hazardous Work Permits, and 20 Safety Task Analysis Risk Reduction Talk (STARRT) cards. Weaknesses were identified in the exposure assessment strategy, self-assessment program, hearing conservation, ergonomics plan, risk communication, and cold stress monitoring and control as described in the Findings and Observations.

Staff Qualifications

BNI is required by contract to use adequately trained and qualified personnel. BNI has two IHs at the WTP. These individuals were supported by an IH and Safety Trainer and by other members of the Safety Assurance (SA) staff. The Lead IH was a Certified Industrial Hygienist. The other staff IH had a Master's Degree in IH and was eligible for certification. The IH and Safety Trainer performs most of the safety training and had

over 17 years of health and safety training experience. No weaknesses were identified in this area.

Worker involvement in hazard analysis and mitigation

Worker involvement in hazard analysis and mitigation was a strength of the BNI program. Interviews with 10 field personnel showed they were not only aware of the hazards, but had been involved in developing mitigation strategies. Every worksite visited had the STARRT card prominently available. The workers could explain the process and the card. Workers were involved in the jobs requiring a more formal JHA. The JHAs reviewed by the Team included worker signatures. Worker involvement is considered a good practice.

Worker rights to monitoring information

BNI procedures clearly stated that workers would be provided monitoring results and written results could be requested (Reference 24590-WP-PL-IS-01-001, Revision 5 Nonradiological Worker Safety and Health Plan). Although the procedure clearly states that all results would be communicated, the IH staff indicated it was done only if there was a concern, and it was always done if an exposure limit was exceeded. The lack of formal communication of monitoring results was documented as an Observation under risk communication (see Observation section for additional details).

Worker training

All workers received safety training as part of initial site training. This training was provided by the SA organization. The Team reviewed the safety lesson plans. The lesson plans adequately covered the subject matter. No weaknesses were identified.

Application of Threshold Limit Values (TLV)

The BNI IH staff was well informed regarding the use of TLVs and of changes in the Occupational Safety and Health Administration (OSHA) standards. The IH staff had reviewed the change in the Chromium VI standard and was monitoring at the appropriate level. The SA organization also published a “Safely Speaking” note regarding the change. The “Safely Speaking” note was distributed to all personnel and was posted on bulletin boards. No weaknesses were identified in this area.

Non-ionizing radiation hazards

There were no non-ionizing radiation hazards identified during the assessment. Although some lasers are used for leveling purposes, these are below the level where a laser safety program would be needed.

Monitoring for exposure to gases, vapors, fumes, and mists

Monitoring was routinely done for hazardous material such as Chromium VI, Silica, and zinc. The IH monitoring database contained over 1000 records of monitoring. Although monitoring was performed, there was no exposure assessment strategy available to tie it all together and to ensure required monitoring was being performed. This was documented as a Finding (See Finding section for additional details).

Hazard Communication Program

Hazard communication training was provided as part of the initial employee safety training. The SA organization kept copies of all Material Safety Data Sheets for the chemicals used onsite. In addition, the SA organization reviewed all chemical purchases before the order was placed. As part of the assessment, the Team examined the contents of numerous chemical storage cabinets on the construction site. Only one instance of improper labeling was observed (cleaning solution similar to Windex) and it was corrected during the assessment. No weaknesses identified in this area.

Respiratory Protection

The primary use for respiratory protection at WTP was to prevent exposure to silica. Silica exposure could be encountered during the sandblasting of walls in preparation for painting. The Team reviewed the training, fit test and medical protocols, respirator issue facility and issue logs, and the procedures for issue and control. The Team also looked at air compressor placement and outside support personnel during sandblasting operations. During one field observation period, the Team noted a compressor used for supply breathing air in close proximity to the dust plume emanating for the blasting area. This could result in dust being entrained in the breathing air. This was brought to the attention of the lead IH and corrected immediately. This was not considered a weakness, but does point to the need for continued vigilance regarding hazards and changing conditions.

Noise and Hearing Conservation program

The Team witnessed use of hearing protection while onsite. Areas were posted and controlled. All craft personnel were entered in the hearing conservation program. As a follow on to the assessment, clarification was received that only the craft (manual labor) personnel are in the program. Superintendents, field engineers, SA staff, and other professional staff are not included. Only limited (four or five personnel total) monitoring had been done to support this decision. Training on hearing conservation was provided as part of the initial worker safety training. The WTP medical program monitors employees' hearing through testing. The lack of a monitoring program for non-manual labor categories is considered a Finding in accordance with OSHA 29 CFR 1910.95(d)(1)(ii) (see the Finding section for additional details).

Ergonomics and Biomechanics

The WTP did not have a formal ergonomics or biomechanics program. While not required, it is considered a good practice. Office ergonomic assessments are performed upon request of the worker. The SA group maintained records of the evaluations. The Team found no records indicating follow-up to the recommendations from the assessment. There have been no ergonomic assessments done on the construction activities. During a field evaluation of the site, the Team observed workers using poor posture and work practices. When this was brought to the attention of the IH, he questioned the workers who said they preferred to do it that way. The evaluators considered good work practices mandatory, not a choice. The lack of an ergonomics program was identified as an observation (see Observation section for additional details).

Thermal stress including both heat stress and cold stress

The BNI heat stress program relied on workers taking breaks as needed. Work/rest regiments were not specified. The IH group did take readings, but did not use them to specify schedules. As an opportunity for improvement, BNI should consider evaluating the use of mandatory breaks to ensure that workers stay adequately protected. The WTP did provide shade, misters, and cold water. New workers receive a green dot on their hard to alert experienced workers to keep them under observation. In addition, the superintendents made sure these workers were acclimatized prior to scheduling full shifts of work.

BNI did not consider cold stress an issue at WTP. The SA group had not taken readings to assess exposure to cold. The Lead IH explained that if it gets cold enough to be a problem, it is usually icy which modifies the work schedule. This explanation was not consistent with historical information regarding winter at Hanford.

As a follow-up to the assessment, the Lead IH was asked if any cold monitoring is done. He did note they checked with the Hanford meteorological station at times. However, he also stated that mandatory work-warming periods were not required until the wind chill temperature reached -15º F, and they have not seen temperatures that low. Although this meets the letter of the TLV, it does not include the other elements of the cold stress recommendations from the American Conference of Governmental Industrial Hygienists (ACGIH). The weaknesses in the cold stress monitoring and control program are an Observation (see Observation section for additional details).

Bloodborne Pathogen Program

This program had a limited numbers of personnel. Laborers, who perform housekeeping, and pipe fitters, who make sewer repairs, are the only crafts in the program. They are trained and offered the appropriate vaccines. No weaknesses were identified in this program.

Specification and use of Personal Protective Equipment (PPE)

PPE was mandated by policy (hard hats, safety glasses, work shoes for all personnel) and procedure. The JHA and STARRT card processes described the specific PPE required for each activity. This is done down to the visitor level such that all personnel onsite, regardless of assignment, are aware of the requirements. Field observations indicated that personnel wore PPE as required. No issues were identified in this area.

Control of exposure to biological agents

There was a program for controlling exposure to biological agents. The training program for the laborers who clean up excrement from rodent and other pests were reviewed. General training in this area was provided to all workers as part of general safety training. No issues were identified in this area.

Workplace inspections and assessments

The SA staff inspected of their assigned work areas daily. The results of these inspections were reviewed monthly staff meetings to identify trends and areas of concern. In addition, the Team that the IH staff spends significant time in the field. This was identified as a good practice by the Team.

The SA staff was unable to provide records of routine program assessments. There was no documented self-assessment program available for review, nor was there an approved self-assessment schedule. This was documented as a Finding by the Team.

Results

The Team concluded:

> The contractor's IH program plan met the contractual requirements as specified in RL/REG-2000-04, IH and Safety Regulatory Plan, with the three exceptions (Findings) noted below.

The Team identified three Findings, two good practices, and made three Observations as described below.

Findings

A-06-ESQ-RPPWTP-009-F01: The BNI WTP IH Program Lacked a Self-Assessment Plan.

24590-WTP-PL-SA-03-001, "Annual Safety Assurance Management Assessment Plan and Schedule" required BNI to perform "assessments in the month assigned, notifying the project SA manager of delays and other difficulties." BNI SA staff could not produce any self-assessment records except a corporate assessment.

24590-WTP-PL-IS-O1-001, Nonradiological Worker Safety and Health Plan, Sections 2.3.1 and 6.1, required BNI to perform assessments of sub-contractors. The Team reviewed several of these assessments; however the IH staff stated not all assessments had been documented.

In addition, DOE, in RL/REG-2004-04, Section 4.2 demonstrates the regulatory need for an effective self-assessment program. BNI did not provide a documented self-assessment plan for the SA organization in accordance with its internal procedures. The Bechtel Corporate Safety Office identified this weakness in its 2006 safety audit of the BNI SA program. The lack of a self-assessment program was a repeat Finding in this audit (ES&H Program Assessment, Fourth Corporate Assessment, Opportunities for Improvement, Page 6, April 6, 2006). In response to the corporate audit, SA Self-Assessment Schedule had been developed; however, the schedule presented to the Team was not signed by management and was not controlled. There were no IH program elements on the schedule for evaluation. The SA staff indicated they were two months behind in performing activities on the schedule.

A-06-ESQ-RPPWTP-009-F02: The BNI WTP IH Program Lacked a Documented Exposure Assessment Strategy.

RL/REG-2000-04, Revision 1, Appendix A, Item 15.d of the Contractor IH and Safety Regulatory Plan required BNI to have a "documented exposure assessment for chemical, physical, and biological agents and ergonomic stressors using recognized exposure assessment methodologies and accredited industrial hygiene laboratories." DOE previously had determined that exposure assessment strategies developed using the American Industrial Hygiene Association "A Strategy for Assessing and Managing Occupational Exposures" met this requirement. The lack of an exposure assessment strategy may lead to lack of recognition of changing conditions. For example, the LAW is now enclosed. This changes the exposure potential when welding and could result in lower exposure limits. Although there was ample evidence of routine sampling (over 1000 data points for air samples alone) there was no documented strategy for collecting samples and no documented analysis of the results. For example:

- Welding on stainless steel resulted in potential exposure to hexavalent chromium (Chromium VI). This hazard was recognized by the IH staff and samples were

taken. The results indicated that welding using Shielded Metal Arc Welding or stick welding could potentially expose personnel above the Occupational Exposure Limit (OEL) unless respiratory protection was used. In one case, a welder exceeded the OEL while wearing a respirator. This was documented in Occurrence Reporting and Processing System report, EM-RP-BNRP-RPPWTP-2005-0010. No issues were found with the investigation and corrective actions in this report. Based on the sample results, use of respiratory protection when stick welding was mandated by the IH group. Recent welding on stainless steel has been performed using Tungsten Inert Gas. Samples taken during this process showed that the inert gas acted as a shield and that very little Chromium VI was released. Based on the sample results, no respiratory protection would be required; however, BNI had no documented analysis to support these conclusions.

- The IH group evaluated the amount of grind back needed when welding galvanized straps to zinc coated steel. OSHA required a four inch grind back unless respiratory protection was worn. There are places at the WTP where it was not possible to achieve a four inch grind back. The IH group took personnel and area samples during welding operations where only a one to two inch grind back was done, and concluded that there was no potential exposure to zinc above the OEL. The only documentation of this conclusion was an e-mail.

- Workers at WTP are enrolled in the hearing conservation program. However, there was no documented strategy for personnel or source monitoring of noise exposure.

A-06-ESQ-RPPWTP-009-F03: The Hearing Conservation Program Does Not Include All Personnel or Provide Justification For Their Exclusion.

OSHA 29 CFR 1910.95(d)(1)(ii) states: "Where circumstances such as high worker mobility, significant variations in sound level, or a significant component of impulse noise make area monitoring generally inappropriate, the employer shall use representative personal sampling to comply with the monitoring requirements of this paragraph unless the employer can show that area sampling produces equivalent results." This requirement was reflected in 24590-WTP-GPP-SIND-012, "Hearing Conservation." Contrary to this requirement, BNI had not demonstrated that representative monitoring for superintendents, engineers, safety professionals, and other non-manual workers had been performed to demonstrate the lack of necessity for enrolling these personnel in the hearing conservations program. Non-manual workers were given baseline hearing exams, received the initial training on hearing conservation, and were required to wear hearing protection in posted areas; however, monitoring was not performed.

Observations

The Observations described below are opportunities for improvement and are not based on regulatory or contractual requirements.

A-06-ESQ-RPPWTP-009-O01: Exposure risk communication was not formalized or clearly defined in the contractor's safety and health documents.

The Team found no evidence that the contractor communicated and disseminated exposure results to workers unless there was an "overexposure" or unless the exposure results were above the OELs. No evidence or documentation was provided to show how this was done or whether exposed workers understood what their exposure results really meant. In addition, the contractor did not communicate routine monitoring results as required by the Worker Safety and Health Plan.

A-06-ESQ-RPPWTP-009-O02: The contractor's IH program lacked an ergonomic plan.

There were no specific procedures for addressing and assessing office ergonomics, workstation design, lifting, or biomechanics. Office ergonomic assessments were performed on a case-by-case basis upon individual request, but with no evidence of follow-up based on the recommendations of the IH workstation assessment. No construction-site ergonomic assessments were performed to fully address and understand the extent of the ergonomic hazards at WTP facilities.

A-06-ESQ-RPPWTP-009-O03: The contractor lacks an effective cold stress monitoring and control plan.

Although the contractor complied with the TLV, the ACGIH made recommendations for preventing cold stress that go into effect above the temperature where the TLV applies. For example, at an equivalent chill temperature (also called wind chill) of 19.4º F, heated warning shelters should be provided and employees encouraged to use them. With regards to monitoring, the ACGIH recommends (and others from ACGIH) that dry bulb temperature and wind speed be measured and recorded whenever air temperature is below 30.2º F. These recommendations were not adequately covered by 24590-WTP-GPG-SIND-007A, "Heat and Cold Stress Prevention."

Good Practices

- There was effective use of the JHAs and STARRT card for all work, and for safety risk reduction and hazard evaluation purposes. The use of these processes was an excellent example of worker involvement in hazard analysis and hazard mitigation; and

- It was obvious to the Team that the IH staff members spent substantial time in the field. The Lead IH knew most of the workers by name, and more importantly, they knew him. This was an excellent example of building a relationship that can enhance communication regarding safety issues.

Conclusions

The Team concluded that BNI WTP IH met the intent of RL/REG-2000-04, with the exceptions as noted in the Findings and as summarized below.

Open Items

Finding A-06-ESQ-RPPWTP-009-F01	The BNI WTP IH program lacked a self-assessment plan.
Finding A-06-ESQ-RPPWTP-009-F02	The BNI WTP IH program lacked a documented exposure assessment strategy.
Finding A-06-ESQ-RPPWTP-009-F03	The hearing conservation program does not include all personnel or provide justification for their exclusion.
Observation A-06-ESQ-RPPWTP-009-O01	Exposure risk communication was not formalized or clearly defined in the contractor's safety and health documents.
Observation A-06-ESQ-RPPWTP-009-O02	The contractor's IH program lacked an ergonomic plan
Observation A-06-ESQ-RPPWTP-009-O03	The contractor lacks an effective cold stress monitoring and control plan.

Closed Items

None, first IH program assessment.

U.S. DEPARTMENT OF ENERGY
Office of River Protection
Environmental Safety and Quality

ASSESSMENT:	Occupational Safety and Health Act Injury/Illness Recordkeeping Review
REPORT:	A-06-ESQ-RPPWTP-009
FACILITY:	Bechtel National, Inc. Waste Treatment and Immobilization Plant
LOCATION:	Hanford Site
DATES:	September 25 through 29, 2006
ASSESSORS:	Paul Hernandez, Lead Assessor
APPROVED BY:	Patrick P. Carier, Team Lead Verification and Confirmation Team

Executive Summary

The U.S. Department of Energy (DOE), Office of River Protection (ORP) assessed the Bechtel National, Inc.'s (BNI) Occupational Safety and Health Administration (OSHA) injury/illness recordkeeping program. The assessor evaluated procedural requirements, interviewed employees who had direct involvement with analyzing or reporting injuries, and examined records. This assessment evaluated the effectiveness of the Contractor's implementation of procedures and practices which satisfy the requirements of OSHA 29 CFR 1904, "Recording and Reporting Occupational Injuries and Illnesses." The assessment focused on determining the effectiveness of the processes associated with identifying, evaluating, and recording injuries and illnesses on OSHA forms and in the DOE Computerized Accident/Incident Reporting System (CAIRS) database. The assessor paid particular attention to injuries which were compensable by the Washington State Department of Labor and Industries, but were not reported as OSHA recordable.

The assessor concluded reporting of work-related injuries by BNI had improved over the last six month period. For the April through September 2006 period, ORP found all cases reported in accordance with OSHA requirements. ORP assessors identified one Finding. The Finding dealt with the failure of BNI safety representatives to document quarterly assessments of BNI subcontractor injury/illness recordkeeping.

Corrective actions from the April 2006 ORP assessment Findings were implemented. ORP verified that six accident dates entered into the CAIRS database incorrectly had been entered into the CAIRS database.

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List of Acronyms

BNI	Bechtel National, Inc
CAIRS	Computerized Accident/Incident Reporting System
DOE	U.S. Department of Energy
L&I	Labor and Industries
ORP	Office of River Protection
OSHA	Occupational Safety and Health Administration
WTP	Waste Treatment and Immobilization Plant

Occupational Safety and Health Association (OSHA) Injury/Illness Recordkeeping Review Bechtel National, Inc. (BNI)

Scope

From September 25 through 29, 2006, the U.S. Department of Energy (DOE), Office of River Protection (ORP) evaluated the BNI OSHA injury/illness recordkeeping program.

Details

The assessor examined relevant documents including the most recent BNI procedure for implementation of the OSHA Recordkeeping Program. The assessor reviewed employee medical records, Computerized Accident/Incident Reporting System (CAIRS) database entries, and "Safety Data System (SDS) First Aid Log" data. The assessor interviewed BNI's Workers Compensation Administrator and reviewed current Labor and Industries (L&I) records for employees who had filed claims.

Review of Procedures

DOE's review of the contractor's procedure for the OSHA Recordkeeping Program determined there was a clear process described for reporting injuries for CAIRS and OSHA recordkeeping purposes. BNI Procedure 24590-WTP-GPP-SIND-023, "Injury/Illness Notification, Investigation, and Reporting," met the minimum requirements in the DOE Environmental, Safety and Health Reporting Manual, DOE M 231.1-1A.

The assessor also reviewed Procedure 24590-WTP-GPP-SIND-022, "Assessment and Issue of Noncompliance for Construction Subcontractor's Safety and Health Compliance." The assessor concluded BNI injury/illness recordkeeping procedures were adequate. There were no issues in the area of procedures.

Comparison of CAIRS Data to Medical Files

The ORP assessor reviewed the CAIRS production database for BNI and subcontractors for the period of April through September 2006. The ORP reviewer reviewed all cases posted in CAIRS that indicated an OSHA recordable injury including restricted or lost work days. Using the assigned case numbers from the log, the reviewer accessed the applicable DOE Form 5484.3, "Individual Accident/Incident Reports," for each case. The contents of the 5484.3 forms were then compared to the information in the patient's medical file.

ORP reviewed case files maintained in the Waste Treatment and Immobilization Plant (WTP) onsite first aid clinic, managed by WorkCare. The ORP assessor found no

discrepancies between CAIRS data entries and patient medical records. BNI's CAIRS database was accurate.

Comparison of L&I Data to CAIRS Data

The ORP assessor initiated this review using L&I data from BNI's Worker's Compensation Administrator. ORP focused on cases compensated by L&I but were not reported as OSHA recordable by the contractor. In theory, all L&I cases are not necessarily OSHA recordable and conversely all OSHA recordable cases are not necessarily compensable. However, OSHA often reviews L&I records because there may be an overlap. Many cases in which the state is compensating individuals for injuries would be work related, and would likely involve medical treatment beyond first aid.

The ORP reviewer analyzed all cases in the L&I records for the period from April through September 2006 and compared it to the information in the patient's medical file. The assessor found no underreporting of injuries or illnesses in any of the Worker's Compensation cases filed over the past six month period.

Review of Subcontractor OSHA Recordkeeping

During a 2005 ORP assessment of OSHA recordkeeping, the assessor found weaknesses in BNI's oversight of major subcontractors. There was a lack of documented evidence that BNI had performed oversight on WTP subcontractors. BNI failed to demonstrate they had performed comparison of OSHA 300 and first aid logs to injuries reported by their subcontractors.

BNI's actions in response to this Finding included the performance of several surveillances in accordance with Procedure GPP-SIND-022, "Assessment and Issue of Noncompliance for Construction Subcontractor's Safety and Health Compliance," effective June 13, 2006. The procedure contains a "Quarterly Subcontractor Injury/Illness Recordkeeping Assessment Worksheet" for documenting quarterly assessments of BNI subcontractor injury/illness recordkeeping by BNI safety representatives.

The ORP assessor requested the last six month's of subcontractor assessment reports and was informed that the assessments had not been documented. A BNI safety representative stated they had performed the assessments but failed to generate records for submittal to Project Document Control for logging, issuance, distribution and records retention. There was no documented evidence that BNI had performed oversight on WTP subcontractors. (This issue has been documented as Finding A-06-ESQ-RPPWTP-009-F03.)

Finding

A-06-ESQ-RPPWTP-009-F04 –There was no documented evidence BNI had performed oversight on WTP subcontractors.

Requirements:

DOE M 231.1-1A, "Environment, Safety And Health Reporting Manual," Attachment II, 3.c. stated, "The contractor must ensure that reports for select subcontractors, those who employ more that 10 employees on the DOE work being performed, are recorded in accordance with 29 CFR 1904.4 through 1904.11, 1904.30, 1904.31, and 1904.46."

Discussion:

DOE M 231.1-1A requires contractors to ensure reports for select subcontractors, those who employ more that 10 employees on the DOE work being performed, are recorded in accordance with 29 CFR 1904.4 through 1904.11, 1904.30, 1904.31, and 1904.46. BNI Procedure 24590-WTP-GPP-SIND-022, "Assessment and Issue of Noncompliance for Subcontractor's Safety and Health Compliance," requires the Safety Assurance Department to conduct quarterly assessments of WTP subcontractors. This BNI procedure required oversight records to be logged, issued, distributed and retained.

Contrary to the above requirement, there was no documented evidence that BNI had performed oversight on WTP subcontractors. Desired oversight would contain evidence of comparison of OSHA 300 and first aid logs with injuries reported to BNI, and an assessment of the appropriateness of categorization under 29 CFR 1904. This issue has been documented as Finding A-06-ESQ-RPPWTP-009-F03.

Item Closed

A-06-ESQ-RPPWTP-005-F01 - "Accident Dates" between October 2005 and April 2006 entered into CAIRS were found to be inaccurate.

During the April 2006 medical records review ORP found that the dates of injury (in CAIRS) were different from the dates of services performed by the Occupational Medical Provider, WorkCare. It was determined that the CAIRS dates were incorrect. ORP determined the corrective actions by BNI were effective. ORP verified completion of BNI's corrective actions.

As a result, the Finding is closed.

Items Reviewed

ORP reviewed the BNI process for controlling work restrictions (light duty) when workers are unable to perform to their full potential. The procedure clearly requires a

licensed health care provider treating injured employees to assist in identifying restrictions from normal work duties. The restrictions were listed on a form, "WTP Medical Status Update." The forms contained sections for listing formal restrictions, date of restriction, duration, and end date, as well as a section describing the work available for the restricted employee. The forms were signed by the employee, their supervisor, and the safety representative. Employees have been instructed that unless the restriction assessment is completed and signed, there were no work restrictions.

ORP interviewed five employees who were injured in the last six months and had work restrictions prescribed by a health care provider. All employees interviewed had a good understanding of the restricted work process. They all acknowledged the employee was responsible of working within the prescribed restrictions. A few mentioned they felt WTP supervisors watched out for them to make sure no restricted work was performed by injured employees. None of the workers indicated they worked outside of their restrictions, that they knew of other workers who may have, or that there was any pressure to perform work outside of prescribed restrictions. None of the five employees interviewed had suggestions to improve the process.

ASSESSMENT NOTE

Inspection Note Number: A-06-ESQ-RPPWTP-009

Inspectors Names: Charles Olaiya
Stephen Bump

Dates of Inspection: September 25 – 29, 2006

Area/Items Inspected: Industrial Hygiene Program Assessment

The assessment team reviewed the Industrial Hygiene procedures and evaluated their implementation in the field. This was a compliance assessment based on the requirements in RL/REG-2000-04. The assessors reviewed training lesson plans and personnel qualification records. The assessors performed field walk downs of the major facilities and construction activities. The assessors interviewed personnel involved in the industrial hygiene program and interviewed workers to gauge their understanding of the program.

Observations and Assessments:

The assessment team reviewed the following documents related to the BNI Industrial Hygiene Program:

- 24590-WTP-PL-IS-01-001, Nonradiological Worker Safety and Health Plan
- 24590-WTP-G63-SIND-001, Hanford Tank Waste Immobilization Plant Health and Safety Policy
- 24590-WTP-GPP-SIND-002, Job Hazard Analysis (JHA)/ Safety Task Analysis Risk Reduction Talk (STARRT)
- 24590-WTP-GPP-SIND-004, Behavior Based Training
- 24590-WTP-GPP-SIND-005A, Back Injury Prevention
- 24590-WTP-GPP-SIND-007A, Heat and Cold Stress Prevention
- 24590-WTP-GPP-SIND-010, Respiratory Protection
- 24590-WTP-GPP-SIND-010, Bloodborne Pathogens
- 24590-WTP-GPP-SIND-012, Hearing Conservation
- 24590-WTP-GPP-SIND-013, Hazardous Work Permit
- 24590-WTP-GPP-SIND-014, Hazard Communication
- 24590-WTP-GPP-SIND-024, General Safe Work Practices
- 24590-WTP-GPP-SIND-025, Personal Protective Equipment
- 24590-WTP-GPP-SIND-036, Air Surveillance Monitoring
- 24590-WTP-GPP-SIND-038, Occupational Medicine
- 24590-WTP-GPP-SIND-054, Safety Assurance Instrument Program
- 24590-WTP-PL-SA-03-01, Annual Safety Assurance Management Assessment Plan and Schedule

The assessors reviewed the following specific training program lesson plans:

- Industrial Safety Orientation
- General Environmental, Safety & Health (ES&H) Requirements
- Respiratory Protection
- Hearing Conservation
- Bloodborne Pathogen
- Dead Mouse & Bird Disposal

The assessors reviewed the following additional information as related to the BNI IH Program:

- Personal Air Monitoring Data Sheets for Chromium VI
- Four Job Hazard Analysis worksheets
- Two Hazardous Work Permits
- Industrial Hygiene and Safety Regulatory Plan- RL/REG-2000-04, Rev.1
- 20 Safety Task Analysis Risk Reduction Talk (STARRT) cards

The assessors reviewed the above documentation and interviewed contractor personnel to verify that the BNI IH program was in compliance. Two findings related to the lack of a self-assessment program and lack of an exposure assessment strategy were identified. In addition, the contractor does not have an ergonomic plan and does not have a documented process for communicating exposure results to the workers. The contractor is very strong in hazard analysis and in field presence of the heath and safety personnel.

The assessors reviewed training lesson plans and personnel qualifications. All personnel were qualified for the positions held. The training programs included required elements from the OSHA regulations. This area was satisfactory.

Conclusions:

The assessors concluded that the Contractor met the intent of RL/REG-2000-04 and the referenced OSHA standards. The Contractor's personnel are well qualified for their positions and spend a great deal of time in the field addressing safety and IH issues. As noted, there were two findings and two observations related to this assessment. Completion of corrective actions will help bring the program into full compliance with the standard.

Personnel Contacted:

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Submitted by: _____ Approved by: _____
Date: Date: