



U.S. Department of Energy
Office of River Protection

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Richland, Washington 99352

04-ESQ-086

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

Dear Mr. Henschel:

CONTRACT NO. DE-AC27-01RV14136 – REPORT A-04-ESQ-RPPWTP-015 – REVIEW OF OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA) INJURY/ILLNESS RECORDKEEPING FOR SEPTEMBER 16 - 22, 2004

This letter forwards the results of the U.S. Department of Energy, Office of River Protection review of the Bechtel National, Inc. (BNI) and selected subcontractors OSHA Injury/Illness Recordkeeping for the Waste Treatment and Immobilization Plant (WTP).

The reviewer concluded that BNI had improved some aspects of its OSHA Injury/Illness Recordkeeping since the last review, which was conducted in March 2004. Some of these improvements include: BNI staff was trained in injury/illness recordkeeping; BNI contracted medical staff simplified medical forms; and BNI reviewed and corrected identified discrepancies in injury and illness data. However, the reviewer also found some errors in injury/illness safety records, minimal oversight by BNI of subcontractor recordkeeping processes, and minor weaknesses in the Computerized Accident Incident Reporting System (CAIRS) database. These are captured as Observations, and not as Findings, because BNI corrected most of the deficiencies before the end of the review.

The reviewer made the following Observations:

- Two cases recorded as first aid should have been recorded as OSHA recordable injuries with restricted workdays;
- A single injury was reported twice;
- A subcontractor recordable injury was not entered into the CAIRS database; and
- BNI had no objective evidence that it had analyzed all of the safety incidents for OSHA reportability.

The attached Assessment Report A-04-ESQ-RPPWTP-015 documents the details of the review results.

Mr. J. P. Henschel
04-ESQ-086

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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,

ESQ:PRH

Roy J. Schepens
Manager

Attachment

cc w/attach:
T. E. Krietz, EM-3
C. Davis, BNI

**OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
(OSHA) INJURY/ILLNESS RECORDKEEPING REVIEW
BECHTEL NATIONAL, INC. (BNI) SEPTEMBER 16 – 22, 2004**

The U.S. Department of Energy (DOE), Office of River Protection (ORP) conducted an OSHA injury/illness recordkeeping review during the period of September 16 – 22, 2004. The review team consisted of a DOE employee from the ORP Office of Environmental Safety and Quality. The reviewer evaluated BNI and its subcontractors' procedures and he considered all injuries at the Waste Treatment and Immobilization Plant (WTP) construction project that occurred from January 1 – September 16, 2004, for review. Approximately 42 records were included in the review (first aid and OSHA recordables). The reviewer selected cases for analysis from BNI's "SDS First Aid Log" containing over 450 incidents for calendar year 2004. Incidents selected for review were cases which would typically result in medical service beyond first aid and/or restricted or lost work days. Examples include strains, contusions, pulled muscles, back pain, objects in the eye, fractures, and heat stress. The reviewer discussed the selected cases with the BNI safety staff and medical providers. The reviewer also compared the OSHA 300 Log to information submitted to the DOE Computerized Accident/Incident Reporting System (CAIRS). BNI subcontractor employee records were included in the review.

Review of Procedures and Reporting Forms

The following BNI procedures were reviewed:

- "Reporting Occupational Injuries and Illnesses," 24590-WTP-GPP-SIND-023B, dated March 21, 2002;
- "Injury/Illness Notification, Investigation, and Reporting," 24590-WTP-GPP-SIND-023, Revision 2, DRAFT. [A procedure that will replace the above procedure;]
- "Reporting Occurrences in Accordance with DOE M 231.1-2," 24590-WTP-GPP-SIND-001, dated June 30, 2004. [CAIRS and associated OSHA reporting requirements were outlined in this procedure;] and
- "Environment, Safety, and Health Reporting in Accordance with DOE O 231.1A," 24590-WTP-GPP-SIND-040, Revision 3, dated November 15, 2003.

The reviewer found the contractor's procedures for the OSHA Recordkeeping Program clearly described responsibilities of employees, supervisors, safety group, project medical staff, and the CAIRS Coordinator. There was a well defined process described for reporting injuries for CAIRS and OSHA recordkeeping purposes. At the time of the review, BNI was revising 24590-WTP-GPP-SIND-040, Revision 3, "Environment,

Safety, and Health Reporting in Accordance with DOE Order 231.1A,” to incorporate changes required by the September 2004 revisions to that Order.

Review of Medical and Case Files

The reviewer found that WORKCARE, the BNI occupational medical provider, improved its injury forms, a recommendation from our March 2004 review, by consolidating the forms into a single record. However, the reviewer found he needed assistance from WORKCARE staff to understand the rationale for classification (first aid, recordable, restricted work days, etc.) of the safety incidents recorded in the medical files.

ORP reviewed medical files maintained in the WTP onsite first aid clinic, which is managed by WORKCARE. Review of these files found that if formal restrictions were imposed there was a form, “WTP Medical Status Update,” in the file. 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. This form is a Bechtel National form and is now formalized into BNI’s procedures. Employees have been instructed that unless the restriction assessment is completed and signed, there were no work restrictions; thus eliminating uncertainties.

To limit burden on the medical staff and improve the accountability of the prime contractor for safety reporting, DOE guidance recommends that prime contractors establish case files for each safety incident. The case files would include selected medical forms, employee statement, investigation, synopsis, etc. The reviewer observed that BNI had not implemented a case file process. Furthermore, the reviewer could not find objective evidence that BNI safety staff had analyzed all safety incidents for OSHA reportability. The reviewer also could not find procedural requirements to cover this responsibility, which is an OSHA requirement. The lack of a case file process likely contributed to the errors found in reporting during the last two ORP assessments.

Comparison of OSHA Log and CAIRS Data

The reviewer found that the BNI safety staff has access to the CAIRS production database and the safety staff had been entering CAIRS data electronically. The reviewer compared information from January – September 2004 CAIRS printed out to the BNI OSHA 300 Log for Calendar Year (CY) 2004. The reviewer analyzed all cases posted on the OSHA log that indicated 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.

The reviewer observed that two cases on the OSHA 300 Log were not listed in CAIRS as restricted work days (Case Nos. 435-04F and 441A-04). When notified of this discrepancy, the BNI CAIRS Coordinator immediately entered the appropriate data into CAIRS. The BNI staff believed this error occurred because the office was in a period of transition at the time of the incidents. The reviewer also observed two cases in the CAIRS database reported the same incident (Case Nos. 732-04 and 732A-04). For these two cases there also was a discrepancy in the number of restricted work days reported (one CAIRS entry showed more days restricted than what the second CAIRS entry showed). The BNI CAIRS Coordinator immediately corrected this error by deleting the duplicate entry and correcting the number of restricted work days.

Review of Subcontractor OSHA Recordkeeping

The reviewer selected two subcontractors, Chicago Bridge and Iron (CBI) and Intermech for review of their OSHA recordkeeping.

Approximately 75 employees work onsite for CBI. The reviewer concluded that none of the twelve CBI first aid cases were OSHA recordable. The reviewer also evaluated the CBI's corporate Injury/Illness recordkeeping procedure, Red Book Number 155-24-8, "OSHA and Government Accident Reporting," dated September 13, 2002. The procedure referenced the relevant OSHA standard 29 CFR 1904, "Recording and Reporting Occupational Injury and Illness." This procedure was thorough and comprehensive. For example, this was the only procedure reviewed that included the application of wound closing glue as an example of medical treatment beyond first aid.

The reviewer noted that Intermech had one injury in CY 2004 – an OSHA recordable for medical services beyond first aid case. The review of Intermech procedure, WTP-ISH-015, "Event Reporting and Investigation," noted that Intermech was required to log and report all injuries and illnesses in accordance with OSHA 29 CFR 1904 requirements and submit monthly injury/illness reports to BNI.

Observations Summary

- Two cases recorded as first aid should be recorded as an OSHA recordable injury with restricted work day activity. See Cases 435-04F and 441A-04. (Observation A-04-ESQ-RPPWTP-015-O01);
- A single incident was reported twice. See Case No. 732-04/732A-04. (Observation A-04-ESQ-RPPWTP-015-O02);
- A subcontractor recordable injury was not entered into the CAIRS database. See Case No. I931416. (Observation A-04-ESQ-RPPWTP-015-O03); and

- BNI could not provide objective evidence that it had analyzed all of the safety incidents for OSHA reportability.

Discussion of BNI Cases

Case No. 435-04F, dated February 11, 2004: A Journeyman Ironworker working at the WTP Pretreatment facility was adjusting rebar curtain when a 4” x 4” block of wood was released under pressure. The piece shot out and hit the base of his little right finger, resulting in the generalized swelling of his fifth digit. Employee was treated with ice at the WTP onsite medical facility for finger contusion.

Medical notes and documentation included “Employees Restriction Assessment Form” dated February 12, 2004. The form stated prescribed work restrictions, including:

- No use of 4th and 5th digits of right hand; and
- Keep splint on until radiology report obtained.

Four days later the x-ray came back positive when overread. At that time the diagnosis was revised to be a non-displaced fracture of 5th proximal phalanx, a broken finger. The restrictions were revised on February 23, 2004 as follows:

- No use of 4th and 5th digits of right hand;
- Keep splint on until follow-up with orthopedic doctor; and
- Work with welding helper; no lifting with right hand.

On April 5, 2004, the restrictions were lifted. BNI had this case listed in the CAIRS database as “recordable.” This case should have been reported on the CAIRS database as restricted for 52 days (WDLR). BNI immediately corrected the entry. This was Observation A-04-ESQ-RPPWTP-015-O01. [29 CFR 1904.7(b)(4)(i)]

Case No. 441A-04, dated February 16, 2004. An Iron Worker injured his back. The employee and partner had tied together two # 11 rebar about 30 feet in length. As the employee bent over to pick up his end of the material and stood up he felt a pain in his back. He called his foreman to report the injury and needed assistance to go to the medical facility. He had treatment at the WTP onsite medical facility immediately following the incident. He received ice, 400 mg ibuprophen/1000mg Tylenol and was told to check back in the morning. The employee did not check in for follow-up until February 18, 2004, when he was referred to WorkCare’s facility in town. The next day he was issued the following restrictions:

- No lifting over 5 lbs.;
- No bending at waist;
- No climbing; and
- No prolonged standing or sitting.

On March 1, 2004, the restrictions were lifted totaling 10 days of work restriction. This case should have been reported on the CAIRS database as recordable, with 10 restricted work days (WDLR). When the reviewer brought this to the attention of BNI, they immediately corrected the entry. This was Observation A-04-ESQ-RPPWTP-015-001. [29 CFR 1904.7(b)(4)(iv)]

Case No. 732-04/732A-04, dated July 21, 2004. A Carpenter was using a large crescent wrench to loosen the nut on a she-bolt. When the nut came loose, it turned suddenly and his left elbow struck another she-bolt protruding from the wailer (concrete formwork) to his left. He did not believe the injury was serious enough to be seen by WTP onsite medical services. Medical notes and documentation showed the employee did not report to the medical facility until July 27, 2004. X-rays were taken and ice applied. On July 29, 2004, the employee's friend delivered a statement from a private orthopedic clinic specifying work restrictions for four weeks. Due to a reduction in force, the employee was terminated (laid off) on July 29, 2004.

This case was properly reported in the CAIRS database except there was a double entry in CAIRS for this single incident. One entry identified 31 WDLR and the other identified 33 WDLR. When the reviewer brought this to the attention of BNI, they immediately corrected the entry (to be 732A-04.) This was Observation A-04-ESQ-RPPWTP-015-002. [29 CFR 1904.7(b)(3)(viii)]

Discussion of Subcontractor Cases

Case No. I931416, dated May 5, 2004. An Intermech Sheetmetal Worker was tightening a screw on the bed of a press brake using an allen wrench. While tightening a screw on the press brake, the employee's hand brushed up against the sharp protruding edge of the shim stock, lacerating the left middle finger. The employee went to WorkCare's Kennewick clinic and was treated for an open wound to the finger. Services included a tetanus/diphtheria vaccination and laceration repair using Dermabond, a dermal adhesive (often used in place of staples or stitches.) The Intermech safety representative had informed the BNI CAIRS Coordinator of the recordable injury by means of the OSHA 300 Log, but the incident had not been reported in the CAIRS database. When the reviewer brought this to the attention of BNI, they immediately corrected the entry. This was Observation A-04-ESQ-RPPWTP-015-003. [29 CFR 1904.7(b)(5)(ii)(D)]

Review Summary

In the six months since DOE's March 2004 recordkeeping review, BNI has improved some aspects in its injury/illness recordkeeping. Examples of these included improving and updating medical forms, performing an historical records review, developing an injury/illness reporting procedure, accessing the CAIRS electronic database, attending DOE's recordkeeping training, and improving accuracy in reporting injury and illness records.

Further improvements are needed in the following areas: BNI should develop safety organization files that consolidate, demonstrate analysis, and summarize case histories; BNI should conduct more frequent and thorough oversight of its subcontractors reporting and recording of injuries and illnesses. There was no evidence BNI had performed assessments of contractor procedures and processes to ensure accurate reporting in the CAIRS system. BNI should continue to improve the accuracy in recording its CAIRS data.