

U.S. Department of Energy
Office of River Protection

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

JAN 10 2008

08-ESQ-007

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-08-ESQ-RPPWTP-001
– ASSESSMENT OF BECHTEL NATIONAL, INC. (BNI) OCCURRENCE REPORTING
PROGRAM, OCTOBER 1 THROUGH 4, 2007

This letter forwards the results of the U.S. Department of Energy (DOE), Office of River Protection (ORP) assessment of the BNI Occurrence Reporting Program conducted from October 1 through 4, 2007 (attached).

The assessment team concluded that BNI Occurrence Reporting Program implementing procedure provided sufficient details to implement the requirements of DOE O 231.1A, "Environmental, Safety, and Health Reporting," and DOE M 231.1-2, "Occurrence Reporting and Processing of Operations Information." The assessors found some opportunities for improvement could be made in the implementing procedure 24590-WTP-GPP-SIND-001, Revision 8, Occurrence Categorization and Reporting. These improvement opportunities will be tracked as an observation and are discussed in more details in the attached report. BNI is requested to provide a response to the observation.

The assessment team found some implementation issues with BNI Occurrence Reporting Program. Review of the past 12 months of occurrence reports found deficiencies with meeting timeliness requirements specified in the above DOE order and manual. This issue was previously identified and documented as a finding in an ORP facility representative assessment report. The assessment team reviewed the BNI corrective actions from the facility representative finding and found them adequate. As a result the assessment team will document this non-compliance as a non-cited finding. BNI is not required to respond to this finding.

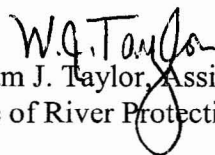
Mr. W. S. Elkins
08-ESQ-007

-2-

JAN 10 2008

If you have any questions, please contact me, or your staff may contact Patrick P. Carier, Office of Environmental Safety and Quality, (509) 376-3574.

Sincerely,



William J. Taylor, Assistant Manager
Office of River Protection

ESQ:PPC

Attachment

cc w/attach:

D. E. Gergely, BNI

D. J. Jantosik, BNI

D. E. Kammenzind, BNI

BNI Correspondence

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

ASSESSMENT: Bechtel National Inc. Occurrence Reporting Program

REPORT: A-08-ESQ-RPPWTP-001

FACILITY: Waste Treatment and Immobilization Plant

LOCATION: Richland, Washington

DATES: October 1 through 4, 2007

ASSESSORS: Patrick Carier, ORP, Lead Assessor
Shawn Hill, Idaho Field Office, Facility Representative

APPROVED BY: William Taylor, Assistant Manager, Office of Environmental Safety and
Quality

Executive Summary

The U.S. Department of Energy (DOE), Office of River Protection (ORP) conducted an assessment of Occurrence Reporting Program at the Waste Treatment and Immobilization Plant (WTP) from October 1 through 4, 2007. The assessment evaluated Bechtel National Inc. (BNI) implementation of the Occurrence Reporting Program requirements of DOE O 231.1A, "Environmental, Safety, and Health Reporting," and DOE M 231.1-2, "Occurrence Reporting and Processing of Operations Information." A facility representative from the Idaho Field Office was the subject matter expert for this assessment.

The assessment team concluded that BNI Occurrence Reporting Program implementing procedure provided sufficient details to implement the requirements of DOE O 231.1A, "Environmental, Safety, and Health Reporting," and DOE M 231.1-2, "Occurrence Reporting and Processing of Operations Information." The assessors found some opportunities for improvement could be made in the implementing procedure 24590-WTP-GPP-SIND-001, Revision 8, Occurrence Categorization and Reporting. These improvement opportunities will be tracked as an observation and are discussed in more details in this report. BNI is requested to provide a response to the observation.

The assessor reviewed and interviewed personnel involved in the preparation and submittal of occurrence reports submitted in the past 12 months (23 reports). The reports were reviewed to ensure the requirements of the implementing procedure were met and followed the requirements of the above DOE Order and DOE Manual. The assessor concluded in most cases the reports were generated in accordance with the contractor's procedure. Some exceptions were noted and are discussed below:

1. There were 11 instances in which the contractor failed to prepare and submit a final report within 45 days. This practice does not meet DOE order requirements and may be contributing to recurrence of events due to timeliness of corrective action plan implementation;
2. There were two instances in which categorization was not performed two hours;
3. The contractor's procedure did not list all information that must be included in a Prompt Notification;
4. There was one instance in which written notification was not performed within the required time; and
5. In the cases where BNI failed to prepare and submit a final report within 45 days; BNI did not utilize the option of preparing an updated report to document the reason for the delay in submitting the final report.

The above non-compliances will be documented as a non-cited finding since these issues are being addressed as a result of a previous ORP finding generated by the WTP Facility Representatives.

Table of Contents

Executive Summary	ii
Table of Contents	iii
List of Acronyms	iv
1.0 Details	5
2.0 Findings and Observations	9
3.0 Conclusion	10
4.0 List of Documents Reviewed	10
5.0 Personnel/Positions Contacted	11

List of Acronyms

BNI	Bechtel National, Inc.
CRAD	Criteria Review and Approach Document
DOE	U.S. Department of Energy
FR	Facility Representative
HQ	Headquarters
ONC	Occurrence Notification Center
ORP	Office of River Protection
ORPS	Occurrence Reporting and Processing System
WTP	Waste Treatment and Immobilization Plant

U.S. Department of Energy (DOE), Office of River Protection (ORP)
Assessment of Bechtel National Inc. (BNI)
Occurrence Reporting Program

1.0 Details

This assessment evaluated BNI's implementation of the ORP requirements of DOE O 231.1A, "Environmental, Safety, and Health Reporting," and DOE M 231.1-2, "Environmental, Safety, and Health Reporting." The review focused on Occurrence Reports submitted by the contractor during the past 12 months prior to the start of this assessment.

Two specific Criteria Review and Approach Documents (CRAD) were developed to evaluate the BNI Occurrence Reporting Program and the CRADs considered the following elements:

1. Programmatic:

- Evaluate the comprehensiveness of the Contractor's Occurrence Reporting Program documents to ensure that the requirements for identification, categorization, notification, investigation, report closure, and training are properly established, documented, and implemented.
- Ensure the Contractor's Occurrence Reporting Program establishes requirements to ensure that events are appropriately categorized and meet timeliness requirements as stipulated in the DOE Manual. This includes:
 - Categorization within two hours of discovery
 - Prompt Notification requirements
 - Written Notification requirements
 - Update Report Requirements
 - Written Revision requirements based on Facility Representative (FR) disapproval of the report

2. Implementation: Based on review of the past 12 months of submitted contractor Occurrence Reporting and Processing System (ORPS) reports, the following elements will be evaluated to determine if implementation of the Occurrence Reporting Program met DOE expectations:

- Implementation of program elements to ensure that the appropriate events or conditions are reported by the contractor;
- Implementation of program elements to ensure that event or conditions are appropriately categorized by the contractors including the appropriate selection of reporting criteria/criterion;
- Implementations of program elements to ensure the appropriate notifications are performed by the contractors based on the Significance Category;

- Implementation of program elements to ensure written notification reports submitted by the contractors meets DOE expectations including schedule requirements;
- Implementation of program elements for Investigating and Analyzing events or conditions identified by the contractor; and
- Implementation of program elements pertaining to Occurrence Report Closure including how lessons learned are developed and communicate to the appropriate individuals and organizations.

1.1 BNI Occurrence Reporting Program

BNI developed procedure “Occurrence Categorization and Reporting,” 24590-WTP-GPP-SIND-001, dated March 16, 2007, to implement the DOE Order and DOE Manual requirements. The assessor reviewed the procedure and concluded that the following requirements were adequately specified:

1. Event or Condition Identification;
2. DOE Headquarters (HQ) Operations Center Prompt Notification;
3. Written Notification;
4. Occurrence Report Closure including development of Lessons Learned;
5. Short Form Reports;
6. Performance Analyses and Identification of Recurring Occurrences; and
7. Training.

The following three program elements did not fully meet DOE expectations and the assessors believe additional clarifications are needed:

1. Event or Condition Categorization;
2. DOE HQ Operations Center Prompt Notification; and
3. Occurrence Investigation and Analysis.

These opportunities for improvement are discussed in more detail below.

Event or Condition Categorization:

Sections 3.2 & 3.3.2 document 24590-WTP-GPP-SIND-001 define the responsibilities and requirements for event/condition categorization. The procedure has divided the section into five categories, Abnormal Event Determination and Notification, Base Program Operational

Emergency Determination and notification, Resource Conservation and Recovery Act Contingency Plan Implementation, On-Call FR Notification, and Occurrence Categorization and Notification.

For operational emergencies, the procedure refers to Appendix D, which is based on the criteria contained in DOE O 151.1C, "Comprehensive Emergency Management System." Appendix C contains the criteria for abnormal event classification. Appendices C and D are inclusive of all the criteria with the following exceptions:

- The information contained in Appendix D is based on previous revision of the DOE O 151.1C. Some of the wording in the procedure is not as conservative as the current criteria. For example, the previous wording in the Health and Safety section Item 5, referred to "An unplanned nuclear criticality resulting in actual or potential facility damage." Current wording in the recent DOE Order is broader in text, which simply states "An unplanned nuclear criticality." In addition, Items 3, 4, and 5 of the Security and Safeguard section are not in the current order and the entire section from the "Hazardous Biological Agent or Toxin" is not included in the procedure. A review should be performed of Appendix D to ensure conservative implementation of the later revision of the DOE O 151.1C are incorporated into the procedure for event classification and response.

Appendix A of procedure 24590-WTP-GPP-SIND-001 contains the criteria for occurrence categories that are not deemed emergency or abnormal events. A comparison of Appendix A against the DOE Order indicated all the required information was present. With the following exceptions:

- Procedure 24590-WTP-GPP-SIND-001 makes no reference to the HQ directive for additional 30 minute notification responsibilities for criteria which may not be ORPS reportable events.
- Per an Office of Environmental Management directive from the Chief Operating Officer for Environmental Management, all Significance Category 3 and Significance Category 4 reports are required to be submitted to the responsible FR to ensure proper categorization. The procedure does not specify this requirement.

DOE HQ Operations Center Prompt Notification

Procedure 24590-WTP-GPP-SIND-001, Appendix A specifies all the criteria as identified by the DOE Order for HQ prompt notification requirements. In addition, a form was developed (Appendix B) to be used for providing all the data required by the order when sending the information required. However it does not list all of the required information listed in DOE Manual 231.1-2, Attachment 2, Step 1.3.2.b.3). This form is sent to the Occurrence Notification Center (ONC) and this organization is responsible for the transmitting of the information to HQ and ensuring it was received and understood.

Occurrence Investigation and Analysis

Procedure 24590-WTP-GPP-SIND-001, Section 3.3.3.5.2.2 attempts to define the DOE Order requirements for investigating and developing analysis of the occurrence. This section does not provide the level of detail that is required by DOE Manual 231.1-2, Attachment 2, Section 1.5.

1.2 Occurrence Reporting Program Implementation

The assessors evaluated 23 Occurrence Reports submitted by BNI during the past 12 months (Section 4.0 provides a listing of reports reviewed). The reports were reviewed against the requirements of the DOE O 231.1A, DOE M 232.1-2, and BNI procedure 24590-WTP-GPP-SIND-001, "Occurrence Categorization and Reporting," effective date of March 16, 2007. In most cases the reports were generated in accordance with contractor procedures and meeting the requirements specified in DOE M 231.1-2. The assessor found some exceptions and those are discussed below:

- a) Contrary to the requirements of DOE M 232.1-2, Attachment 2, Section 1.6, there were 11 instances in which the contractor did not prepare and submit the final reports within 45 day requirement. As a result, the reportable condition corrective actions were likely not implemented in a timely fashion.
- b) Contrary to the requirements of DOE M 232.1-2, Attachment 2, Section 1.2, there were two instances in which the contractor failed to categorize an event within two hour requirement.
- c) Of the ORPS reports that were reviewed, none required Prompt Notification to DOE HQ ONC. The contractor's document does not list all information that must be included in a Prompt Notification. Prompt notification to the FR was timely in all cases.
- d) Contrary to the requirements of DOE M 232.1-2, Attachment 2, Section 1.4, there was one instance in which the contractor failed to complete a written notification report within the required time.
- e) In the cases where the contractor failed to prepare and submit a final report within 45 days; they also failed to utilize the option for performing an update report to document the reason for the delay in submitting the final report.

The above non-compliance will be documented as a non-cited finding (A-08-ESQ-RPPWTP-001-N01) since these issues are being addressed as a result of a previous ORP finding generated by the ORP Waste Treatment and Immobilization Plant (WTP) FRs.

The assessor compared BNI's assessment and categorization of events with other DOE field offices. The assessor concluded that for most cases the BNI reports were comparable to other sites. The assessor discussed several of the occurrence reports with FRs throughout the complex. In most cases the FRs agreed with the classification and grouping of the events based on the information provided. In cases where the outside FRs did not agree, there was a split between being more conservative in some cases and less conservative in others. An example of less conservative reporting can be found in ORPS Report EM-RP--BNRP-RPPWTP-2007-0003.

This was the case of a safety professional using a utility knife to cut the end off of a damaged extension cord that was still plugged into the wall socket. This event was categorized as a 10(2), SC-3 management concern. A more conservative categorization may have been 2C(2), SC-3, failure to control a hazardous energy source and 10(3), SC-3 near miss.

Interviews conducted with contractor personnel revealed that contractor responsibilities are well defined and understood by the current personnel involved in the Occurrence Reporting Program. This has not always been the case. A BNI Management Assessment of the ORPS program was performed in November 2006. The report identified weaknesses in the areas of roles and responsibilities as well as lack of training for certain contractor personnel and a lack of resources. These deficiencies were corrected with the implementation of a change to the contractor document 24590-WTP-GPP-SIND-001, "Occurrence Categorization and Reporting," and the hiring of an Occurrence Report Coordinator.

A review of training material (classroom and Computer Based Training) provided to Contractor personnel involved in Occurrence Reporting Program verifies that the current Contractor training program is consistent with DOE expectations.

With the exceptions noted above, contractor ORPS report are consistent in content, classification, and timeliness with those experienced by the FRs from the Idaho Operations Office.

2.0 Findings and Observations

There was one non-cited finding and one observation identified during this assessment.

Non-Cited Finding (A-08-ESQ-RPPWTP-001-N01)

- Contrary to the requirements of DOE M 232.1-2, Attachment 2, Section 1.6, there were 11 instances in which the contractor failed to prepare and submit a final report within 45 days.
- Contrary to the requirements of DOE M 232.1-2, Attachment 2, Section 1.2, there were two instances in which the contractor failed to categorize an event within two hours.
- The BNI procedure did not require documentation of all information that must be included in a DOE HQ Prompt Notification.
- Contrary to the requirements of DOE M 232.1-2, Attachment 2, Section 1.4, there was one instance in which the contractor failed to complete a written notification report within the required time.
- In the cases where the contractor failed to prepare and submit a final report within 45 days; they also failed to utilize the option for performing an update report to document the reason for the delay in submitting the final report.

Discussion

(See Section 1.2 of the report)

Observation (A-08-ESQ-RPPWTP-001-O02)

(See Section 1.1 for details)

3.0 Conclusion

The assessor concluded that BNI has developed an Occurrence Reporting Program that meets DOE expectations as depicted in the DOE O 231.1A and DOE M 231.1-2. Some minor opportunities for improvement to the implementing procedure were discussed in the above report. These improvement opportunities will be tracked by Observation A-08-ESQ-RPPWTP-001-O02. BNI is requested to provide a response to the observation and describe how the procedure will be modified. The assessor also concluded that BNI did not meet DOE's timeliness expectations. This will be documented as a non-cited finding (A-08-ESQ-RPPWTP-001-N01). BNI is not required to respond to this finding since BNI provided corrective actions to a previous ORP finding generated by the WTP FR. The effectiveness of the BNI corrective actions will be verified in a future ORP assessment.

4.0 List of Documents Reviewed

- DOE O 231.1A, "Environmental, Safety, and Health Reporting;"
- DOE M 231.1-2, "Occurrence Reporting and Processing of Operations Information;"
- BNI procedure 24590-WTP-GPP-SIND-001, "Occurrence Categorization and Reporting," effective date of 16 March 2007;"
- BNI procedure 24590-WTP-CBT-TRA-000202, "Introduction to Occurrence Reporting;" and
- BNI procedure 24590-WTP-CRM-TRA-000130, "Event Notification and Reporting."

BNI ORPS Reports

- EM-RP--BNRP-RPPWTP-2006-0021;
- EM-RP--BNRP-RPPWTP-2006-0022;
- EM-RP--BNRP-RPPWTP-2006-0025;
- EM-RP--BNRP-RPPWTP-2006-0026;
- EM-RP--BNRP-RPPWTP-2006-0027;

- EM-RP--BNRP-RPPWTP-2006-0028;
- EM-RP--BNRP-RPPWTP-2006-0029;
- EM-RP--BNRP-RPPWTP-2006-0030;
- EM-RP--BNRP-RPPWTP-2007-0001;
- EM-RP--BNRP-RPPWTP-2007-0002;
- EM-RP--BNRP-RPPWTP-2007-0003;
- EM-RP--BNRP-RPPWTP-2007-0004;
- EM-RP--BNRP-RPPWTP-2007-0005;
- EM-RP--BNRP-RPPWTP-2007-0006;
- EM-RP--BNRP-RPPWTP-2007-0007;
- EM-RP--BNRP-RPPWTP-2007-0008;
- EM-RP--BNRP-RPPWTP-2007-0009;
- EM-RP--BNRP-RPPWTP-2007-0010;
- EM-RP--BNRP-RPPWTP-2007-0011;
- EM-RP--BNRP-RPPWTP-2007-0013;
- EM-RP--BNRP-RPPWTP-2007-0014;
- EM-RP--BNRP-RPPWTP-2007-0015; and
- EM-RP--BNRP-RPPWTP-2007-0016.

5.0 Personnel/Positions Contacted

BNI WTP Construction Occurrence Report Coordinator/Issues Management,
BNI Safety Operations Specialist,
BNI Safety Operations Manager.