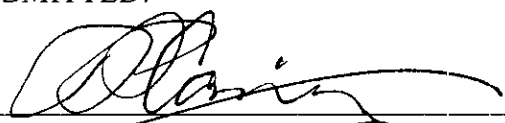


## INDEPENDENT ASSESSMENT OF ENVIRONMENTAL SAFETY AND QUALITY OVERSIGHT PROGRAM

JUNE 4 through 14, 2007

A-07-ESQ-ORP-004

SUBMITTED:

  
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Date: 9/11/07

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## EXECUTIVE SUMMARY

The U.S. Department of Energy, Office of River Protection (ORP) Waste Treatment and Immobilization Plant (WTP) conducted an independent assessment of its Office of Environmental Safety and Quality (ESQ) Oversight Program to verify it complied with ORP implementing documents<sup>1</sup>. In addition, the assessor reviewed the implementation of the oversight process including identification, transmittal, tracking, and closure of issues to the WTP Contractor (Bechtel National, Inc. [BNI]). Specifically, the following were assessed:

1. Compliance of selected assessments with governing instructions.
2. Verification that follow-up items (observations and findings) were identified and appropriately transmitted to BNI for a response.
3. Adequacy of the program to track assessment follow-up items, including placement of such issues in the Consolidated Action Reporting System (CARS) (or another acceptable database) for assuring visibility of issues requiring BNI actions and timely reviews by ESQ for acceptance.
4. ESQ acceptance of Contractor actions to ensure the actions were effective in resolving the issues being tracked, and that documentation in the database properly reflected issue closure.

Several observations, findings, and recommendations were identified as a result of this assessment and are summarized in the following paragraphs.

### **Program Compliance**

The assessor concluded ESQ personnel generally followed the assessment procedure and additional guidance in the form of desk instructions. However, personnel were somewhat confused due to the existence of some outdated instructions and guides that provided conflicting information relative to current expectations about program implementation. In addition, a finding (A-07-ESQ-ORP-004-F01) was cited due to lack of control and maintenance of ESQ records for qualification of assessment members and team leaders.

Assessment plans were documented and approved in advance of assessments, and plans for individual ESQ assessments were acceptable and consistent with procedural guidance and stated management expectations. The assessor noted ESQ assessments did not routinely note whether the Contractor initiated corrective action documents (Project Issues and Evaluation Reporting, CARS, etc.) for issues that ESQ identified and discussed with the Contractor prior to the end of the assessments. The assessor recommended ESQ (and ORP) do this, in that it would provide ongoing insights about the Contractor's performance in the corrective action area (Recommendation A-07-ESQ-ORP-004-R02).

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<sup>1</sup> ORP M 220.1, *Integrated Assessment Plan*, Rev. 4

Because all findings are not of the same significance, the assessor recommended ORP consider establishing a graded approach to the timeframe for the Contractor to respond to findings, based in part on their significance, impact on personnel or equipment safety, etc. In addition, the assessor identified several other issues concerning the integrated assessment process that should be addressed in the next revision to ORP M 220.1 (Recommendation A-07-ESQ-ORP-004-R01).

ESQ was not sharing results of its assessments with others in ORP as ORP M 220.1 required – this was a finding (A-07-ESQ-RPPWTP-004-F02). ESQ periodically identified the need to perform For-cause assessments, and revised the fiscal year assessment schedule to reflect the addition of these and deferral of others due to resource constraints. ESQ (as well as ORP overall) did not have an effective and repeatable way to trend contractor performance to enable it to analyze and draw conclusions about future assessment planning and For-cause assessments (Observation A-07-ESQ-RPPWTP-004-O01). Although ESQ had established and was actively using Performance Indicators (PI) relating to timeliness of documenting, approving, and issuing its assessment reports, no PIs were in use to monitor the “back end” of the assessment process. The assessor recommended such PIs be developed and implemented (Recommendation A-07-ESQ-ORP-004-R03).

### **Transmittal of Issues to Contractor**

The assessor concluded for the most part ESQ performed assessments in accordance with governing procedures and instructions, and in all instances, transmitted them to the Contractor under formal correspondence. Issues identified in assessments were almost always characterized correctly; however, the assessor found three assessments that identified issues of such significance that ESQ should have considered characterizing them as “Concerns” (Observation A-07-ESQ-ORP-004-O02).

Cover letters clearly articulated the issues, framed appropriate messages to Contractor management, and were supported by compelling evidence in the bodies of reports. However, the letters did not always request the Contractor to identify the causes for findings when providing a written response, which allowed the potential for repeat problems due to the lack of preventive actions (Observation A-07-ESQ-ORP-004-O03). A Good Practice was noted – ESQ cited the most significant examples for each negative performance issue in assessment cover letters.

### **Tracking of Issues to Resolution**

ESQ Lead Assessors were not effectively managing follow-up items from their assessments, and the ESQ Verification and Confirmation Division was not ensuring CARS was maintained for items under his purview. (Finding A-07-ESQ-ORP-004-F03) This was supported by ESQ persons: 1) not placing observations requiring follow-up into CARS; 2) not placing commitments for future actions stated in assessment cover letters into CARS; 3) not assigning realistic due dates for follow-up items in CARS that were tied to BNI estimated 30-day response dates and estimated corrective action completion dates; and 4) not describing subtasks in CARS necessary for successful completion and closure of follow-up items for complex issues.

### **Adequacy of Issue Closure**

From the sample of closed follow-up items, the assessor concluded the technical bases for resolving the majority of follow-up items were acceptable, and represented suitable bases for ESQ's closure of the items, notwithstanding some minor examples to the contrary (the record for Findings A-06-ESQ-RPPWTP-009-F01 and F04 should be corrected as a result of a minor discrepancy). (Recommendation A-07-ESQ-ORP-004-R04) ESQ was using appropriate vehicles (assessment reports, e-mails, and Operational Awareness Database entries) to document closure of follow-up items. However, in some cases, ESQ was not entering certain information suggested by ESQ Desk Instructions into CARS. No action items were placed in CARS to ensure future planned assessments in a given program/functional area included validation for effectiveness of corrective actions to previous follow-up items. (Observation A-07-ESQ-ORP-004-O04)

**TABLE OF CONTENTS**

1.0 INTRODUCTION ..... 1

2.0 OBJECTIVES, SCOPE, AND APPROACH..... 1

    2.1 Objectives ..... 1

    2.2 Scope..... 2

    2.3 Approach..... 2

3.0 RESULTS ..... 3

    3.1 Compliance of the ESQ Oversight Program with Governing Instructions..... 3

        3.1.1 Qualifications of ESQ Assessment Personnel..... 3

        3.1.2 Assessment Planning ..... 3

        3.1.3 Assessment Procedure Adequacy ..... 4

        3.1.4 Performing the Assessment ..... 5

        3.1.5 Sharing of Assessment Results and Insights ..... 6

        3.1.6 ESQ Trending of Contractor Performance and For-Cause Assessments . 7

        3.1.7 Performance Monitoring ..... 8

        3.1.8 Conclusion..... 8

    3.2 Transmittal of issues to Contractor ..... 9

        3.2.1 Issue Characterization ..... 9

        3.2.3 Conclusion..... 11

    3.3 Status reporting and tracking of follow-up items ..... 11

    3.4 Adequacy of ESQ acceptance of actions to close follow-up items ..... 14

        3.4.1 Adequacy of Closure ..... 14

4.0 OPEN ITEMS ..... 15

    4.1 Findings..... 15

    4.2 Observations ..... 16

    4.3 RECOMMENDATIONS..... 16

5.0 REFERENCES AND PERSONNEL CONTACTED ..... 17

    5.1 References..... 17

    5.2 Personnel Contacted..... 19

1.0 BACKGROUND, PURPOSE, AND OBJECTIVES..... I

    1.1 Background..... i

    1.2 Purpose..... i

    1.3 Objectives ..... i

2.0 PROCESS ..... II

    2.1 Scope..... ii

    2.2 Preparation ..... ii

    2.3 Review ..... ii

3.0 SCHEDULE OF ACTIVITIES..... III

4.0 DOCUMENTATION ..... III

Appendix A - Oversight Plan

## LIST OF ACRONYMS

AFI	Assessment Follow-up Item
AM	Assistant Manager
APC	Assessment Program Committee
APM	Assessment Program Manager
BNI	Bechtel National, Inc.
CAR	Corrective Action Report
CARS	Consolidated Action Reporting System
DI	Desk Instruction
DOE	U.S. Department of Energy
ESQ	Office of Environmental Safety and Quality
FY	Fiscal Year
IAP	Inspection Administrative Procedures
JHA	Job Hazard Analyses
LAW	Low-Activity Waste
NSQI	Nuclear Safety and Quality Imperative
OA	Operational Awareness
OCRWM	Office of Civilian Radioactive Waste Management
OCT	Operations and Commissioning Team
ORP	Office of River Protection
OSHA	Occupational Safety and Health Administration
PAAA	Price-Anderson Amendments Act
PI	Performance Indicator
PIER	Project Issues Evaluation Reporting
QA	Quality Assurance
RW	Office of Civilian Radioactive Waste Management
VCD	Verification and Confirmation Division
WED	WTP Engineering Division
WTP	Waste Treatment and Immobilization Plant

## **1.0 INTRODUCTION**

A major component of the U.S. Department of Energy (DOE), Office of River Protection (ORP) mission is the design and construction of the Hanford Tank Waste Treatment and Immobilization Plant (WTP) in the 200 East Area of the Hanford Site. The design and construction contractor for the WTP is Bechtel National, Inc. (BNI; i.e., Contractor). As part of its oversight responsibilities, ORP performs various assessments of BNI's (and other ORP prime contractors) activities during the design and construction phases. The Office of Environmental Safety and Quality (ESQ) has primary responsibility for programmatic oversight of ORP prime contractors (BNI, CH2M HILL Hanford Group, Inc., and Advanced Technologies Laboratories International, Inc.). ORP assessment plans were executed with reports issued and actions tracked to provide active oversight of the following contractor programs: 1) Quality Assurance; 2) Radiological Controls; 3) Fire Protection; 4) Industrial Health and Safety; and 5) Computerized Accident/Incident Reporting System reporting. These assessments were performed to ensure requirements for these programs were properly implemented by the contractors. This assessment focused solely on ORP's programmatic oversight of BNI's programs.

As part of this oversight, a consultant performed an independent assessment to verify the ESQ Oversight Program complied with the primary implementing document ORP M 220.1, as well as applicable desk instructions. In addition, the assessor reviewed the implementation of the ESQ Oversight process of identification, transmittal, tracking, and closure of issues to the Contractor based on selected assessments from 2005 to the present. The assessor reviewed open follow-up items from assessment reports to determine if responses were timely and acceptable, and to compare actual status to that recorded on various status tracking documents.

This independent assessment is being done to determine the extent to which ESQ is implementing its assessment program, and whether the program is providing effective Contractor oversight at the WTP Site. Such an assessment has not been done before; hence, this assessment will establish baseline performance such that future assessments may provide insights on ESQ performance trends.

## **2.0 OBJECTIVES, SCOPE, AND APPROACH**

### **2.1 OBJECTIVES**

ORP conducted this assessment as part of its responsibility for compliance with the requirements of ORP M 220.1, Section 6.2.5 "Management Assessment Conduct," which requires direct reports to the manager to assess their management processes, and to identify and correct problems that hinder their organizations from achieving their objectives. The specific objectives of this assessment are listed in Appendix A, "Independent Assessment of WTP Environmental, Safety, and Quality (ESQ) Oversight Program," and repeated below:

1. Evaluate compliance of the ESQ assessments to governing instructions.
2. Review select ESQ assessments performed since early 2005 to determine issues identified and whether they were appropriately transmitted to the Contractor.

3. Review the adequacy of the program for tracking ESQ assessment issues, including placement of such issues in the Consolidated Action Reporting System (CARS) (or another acceptable database) for assuring visibility of issues requiring Contractor actions and timely reviews by ESQ for acceptance.
4. Evaluate ESQ acceptance of Contractor actions to assure these were effective in resolving the issues being tracked, and that documentation in the database properly reflects issue closure.

## **2.2 SCOPE**

The scope of this assessment covered the period from January 2005 to the present, and included Assessment Reports A-05-ESQ-RPPWTP-001 through 010; A-06-ESQ-RPPWTP-001 through 011; and, A-07-ESQ-RPPWTP-001 through 007. Both closed and open items from these reports were reviewed to determine if closures were timely, and to determine if open items were being tracked and managed to closure in a timely manner. Actual status of selected issues was compared to the status reflected in tracking databases to determine if they were consistent. Finally, selected issues that were previously closed were reviewed to determine if ESQ's acceptance of these issues for closure had an adequate basis.

This assessment focused exclusively on BNI program oversight as performed under the ESQ Assessment Program. Results of oversight are documented in assessment reports, surveillances, or in the Operational Awareness (OA) database.

## **2.3 APPROACH**

This assessment was conducted within the guidelines of ORP M 220.1. The assessor collected information from various BNI and DOE documents and conducted interviews with ESQ staff (see Section 6.0 for a full listing of reviewed documents and persons contacted). The approved oversight plan, "Independent Assessment of Environmental, Safety, and Quality (ESQ) Oversight Program" is provided in Appendix A.

The assessor initiated the following steps to obtain information required to meet the assessment objectives. The order of review and depth of each step was left to the assessor's discretion.

1. The assessor reviewed the ESQ oversight process as described in ORP M 220.1 and applicable desk instructions and compared it to the process actually being implemented by ESQ personnel, as well as to the documented oversight assessments. This was done to determine if assessments were being performed and documented in accordance with the governing instructions.
2. The assessor reviewed selected ESQ oversight reports completed over the period January 2005 to the present. This was done to identify follow-up items within the reports and how they were characterized, whether transmittal letters from ORP requested responses to them, and whether these items were accurately entered and statused in required tracking databases. Closed items were reviewed to determine if they contained sufficient evidence of closure for follow-up items.



3. The assessor interviewed ESQ personnel and management to determine their understanding of the Oversight process, as well as management's expectations for implementing it. In addition, during the interviews the status of individual follow-up items and whether the documented status was consistent with the actual status was discussed. Also during the interviews the assessor focused on the timeliness and adequacy of Contractor responses to these items.
4. The assessor reviewed various ORP reports and databases (in particular, CARS) that contained the status of ESQ oversight items to determine whether they were accurate, consistent, complete, and whether closures of issues were timely.
5. The assessor reviewed ESQ assessment reports, CARS entries, surveillance reports, and OA Database "surveillance" reports that documented closure of Observations and Findings, and the bases for their closure, to determine if they were acceptable for closure.

### **3.0 RESULTS**

The assessment results are presented in the following four areas:

1. Compliance of the ESQ Oversight Program with governing instructions
2. Transmittal of issues to Contractor
3. Status reporting and tracking of Followup Items
4. Adequacy of ESQ acceptance of actions to close followup items

#### **3.1 COMPLIANCE OF THE ESQ OVERSIGHT PROGRAM WITH GOVERNING INSTRUCTIONS**

The ESQ Oversight Program was for the most part implemented in accordance with governing instructions.

##### **3.1.1 Qualifications of ESQ Assessment Personnel**

The assessor reviewed the qualification records for five primary ESQ persons who were qualified as both assessment team members, as well as team leaders. The assessor was provided a binder from the Verification and Confirmation Division's (VCD) Team Lead that purportedly contained the qualification records for the subject individuals. The records for only two of the five individuals were included in the binder. The two records that were reviewed were complete and consistent with ORP M 220.1, Revision 4 requirements.

ORP M 220.1, Revision 4, Section 8.0, Records, states, "The following records generated by this procedure will be controlled and maintained by the generating organization ... e. Training and qualification records." Contrary to this, ESQ qualification records were not controlled and maintained in accordance with this requirement. This is **Finding A-07-ESQ-ORP-004-F01**.

##### **3.1.2 Assessment Planning**

The assessor reviewed three plans for individual ESQ assessments and found them to be acceptable and consistent with procedural guidance and stated management expectations. In addition, interviews with ESQ personnel indicated they consistently developed and acquired assessment plan approval two to four weeks in advance of beginning the assessments.

### 3.1.3 Assessment Procedure Adequacy

The assessor reviewed implementing procedures for the ESQ Oversight Program. From various interviews and reviews of documentation, the assessor concluded the following instructions were used for this purpose:

- ESQ Desk Instruction 1.2, “Assessment Tracking and Reporting.”
- ESQ Desk Instruction 1.3, “Assessment Finding Closure Process.”
- Inspection Administrative Procedures (IAP) IAP-A-101 through 109.

Discussion with the ESQ VCD Team Lead indicated his understanding that the IAPs were no longer applicable to the ESQ assessment program – in some cases they were superseded by ESQ Desk Instructions (DI), and in other cases were no longer in use. However, the assessor noted the IAPs were still on the ORP website, and none of them were cancelled or superseded. In addition, some of the ESQ persons interviewed cited IAPs as continuing to be relevant to implementation of the assessment program in ESQ.

ESQ DIs were still applicable but outdated and not being followed (DI 1.2, “Assessment Tracking and Reporting” and DI 1.3, “Assessment Finding Closure Process”) in all aspects. Some information in the DI’s conflicted with the current process:

- DI 1.2 stated closure of followup items is documented in an assessment report or an e-mail, as well as in CARS. During the assessment, discussions with ESQ personnel indicated closure was often documented in the OA Database.
- DI 1.2 stated the CARS Data Entry Form is used to initially place the followup item in CARS, and is later revised with updated information forming the basis for closure. This Entry Form was no longer in general use in ESQ.
- DI 1.3 included a flow diagram that describes the sequential steps for closure of an ORP followup item. Step 11 indicates the ESQ Director approves the assessment report (performed to support closure of an issue) and corrective action closure. During the assessment, discussions with ESQ personnel indicated closure of assessment followup items is verified and accepted through review by the ESQ VCD Team Lead.
- ESQ DIs sometimes conflicted with ORP IAPs (e.g., ESQ DI 1.2 and IAP-A-108 both discuss the CARS Database and contain some outdated, as well as overlapping, information).

ESQ personnel were not consistent in describing the procedures and instructions governing implementation of the ESQ assessment program. However, their implementation of the assessment program was consistent and effective.

The assessor identified a number of issues with the current assessment process as described in ORP M 220.1, Revision 4:

- ORP M 220.1, Revision 4, provided a definition for “Surveillance.” Although ESQ personnel will, on occasion, perform and document a “Surveillance” as a vehicle by which they close a followup item, the instruction is silent on how and when “Surveillance” is to be used as part of the Integrated Assessment Program.
- Assessment procedures and instructions made no distinction about the expected level of response by the Contractor, or ORP, if an issue was characterized as a “Concern,” “Finding,” or “Observation.” Therefore, it was unclear what the advantage was of characterizing issues as “Concerns,” versus simply making “heavy-handed” statements about the Contractor’s performance in cover letters.
- No guidance was provided in any procedures or instructions for determining which assessment observations, if any, warranted a formal, written response by the Contractor.
- The assessor was informed there was no specific requirement for the Contractor to respond to findings and select observations within 30 days of assessment report issuance. In practice, the Contractor often does not meet the response due date, or if the date is met, the documented response may not be of high caliber. Because all findings and observations are not of the same significance, it is unreasonable that the Contractor respond to every such item in the same timeframe. The assessor believes ORP should consider establishing a graded approach to the timeframe for the Contractor to respond to findings, based in part on their significance, impact on personnel or equipment safety, etc.

The assessor recommended ORP consider revising ORP M 220.1 to address the above issues.  
**Recommendation A-07-ESQ-ORP-004-R01.**

### **3.1.4 Performing the Assessment**

Based on interviews and reviews of completed assessment reports, ESQ personnel used all pertinent methodologies (document/record review, personnel interviews, observation of activities/work, etc.) to perform their assessments.

The assessor noted ESQ personnel were not discussing in assessment reports whether the Contractor initiated a Project Issues Evaluation Reporting (PIER) for issues they raised during the assessment (ESQ personnel identified a minor problem that was corrected “on the spot” by the Contractor; or they identified an issue that would likely be characterized as a finding or observation requiring a response and debriefed the Contractor on it during the assessment, etc.). In addition, ESQ personnel were not referencing in assessment reports BNI PIER/Corrective Action Report (CAR) numbers for issues on which the Contractor initiated a corrective action document. This information would be useful for determining the Contractor’s performance in the Corrective Action area over time, and the assessor recommended that ESQ (and ORP) adopt this practice. **Recommendation A-07-ESQ-ORP-004-R02.**

### 3.1.5 Sharing of Assessment Results and Insights

ORP M 220.1, Revision 4, states, “The APC ensures a program is in place and functioning to share assessment results that may enhance assessments by other organizations.” In addition, “The APM (a) reviews reports for applicability to other ORP organizations and possible site-wide issues, (b) makes information available to ORP organizations, and (c) brings potential ORP-wide issues to the attention of the AM’s and the Deputy Manager.”

Contrary to the above, discussions with ESQ personnel and review of ESQ, WTP Engineering Division (WED), and Operations and Commissioning Team (OCT) assessment reports indicated sharing of assessment results and contractor performance insights was not being done. The following were examples where not sharing assessment results: 1) provided a “mixed message” to BNI in one case; and 2) represented a missed opportunity for ESQ and others in ORP to correlate performance problems in their assessments to the effectiveness of actions taken under BNI’s Nuclear Safety and Quality Initiative (NSQI):

- Conflicting performance insights regarding Job Hazard Analyses (JHA) were provided to BNI via WTP Project and ESQ assessments performed in approximately the same month. A-06-ESQ-009 (Industrial Hygiene/Occupational Safety and Health Administration [OSHA] Illness/Injury Recordkeeping) was performed from September 25 through 29, 2006, and issued on January 5, 2007. A Good Practice was cited – “There was effective use of JHAs and STAART cards for all work, and for safety risk reduction and hazard evaluation purposes.” WTP Project Inspection Note A-06-AMWTP-RPPWTP-004-14, performed in October 2006, concluded BNI’s JHA process was not fully effective at communicating and implementing worker hazard awareness based on problems with JHA procedures and implementation weaknesses. This resulted in assignment of Assessment Follow-up Item (AFI) A-06-AMWTP-RPPWTP-004-AFI06 to followup on BNI’s actions to address JHA process weaknesses.
- WED Assessment D-07-DESIGN-038 (Metric Program for Nuclear Safety and Quality Culture Initiative) was issued to BNI on April 30, 2007, and concluded: 1) the NSQI project had no defined plan for implementing and monitoring the effectiveness of improvement initiatives; and 2) WED could not confirm that BNI’s actions to improve its nuclear safety culture had yet been effective. The assessment report described the eight weaknesses that constituted a problem with overall nuclear safety culture – four of these were: 1) procedural compliance; 2) procedure adequacy; 3) training effectiveness; and 4) questioning attitude. BNI had previously issued CAR 05-331 in December 2005 to address the nuclear safety culture weaknesses identified in ESQ Assessment A-05-ESQ-RPPWTP-009.

The assessor’s review of ESQ assessments performed in 2007 to date identified instances in which BNI personnel violated procedures, did not enter “issues” into their PIER (corrective action) program, etc. These were performance insights that directly related to NSQI initiatives that were implemented in mid 2006 to prevent this very behavior. Not sighting this correlation in ESQ assessments (or OA “surveillances”) represented a missed opportunity to highlight instances on an ongoing basis where Nuclear Safety Culture expectations were not being met by BNI.

Not sharing results of ESQ assessments and contractor performance insights within ORP was **Finding A-07-ESQ-ORP-004-F02.**

### 3.1.6 ESQ Trending of Contractor Performance and For-Cause Assessments

ORP M 220.1, Revision 4, states the ORP Integrated Assessment Program provides "... For-cause assessments, as necessary." This type of assessment is defined as "Review of contractor operations or performance conducted as a result of poor performance or trends indicating the potential for improvement requiring DOE followup to protect the government's interest. Specific reviews may also arise from implementing new requirements placed on the contractor or new, significantly revised contractor systems requiring validations." The need for a For-cause assessment may be identified via any data source (performance indicators, results from assessments, Facility Representative observations, etc.). Assistant Managers (AM) report quarterly to the Assessment Program Committee (APC) any trends indicating the potential need for For-cause assessments. Based on this, the APC may decide to assign a For-cause assessment to be performed.

Based on interviews conducted and review of the ORP Fiscal Year (FY) 2007 Oversight Assessment Schedule, the assessor was informed of or noted the following assessments that qualified as For-cause assessments:

- A-07-ESQ-RPPWTP-001, Fire Protection Program Implementation – the interview with the Fire Protection lead in ESQ noted Fire Protection program assessments must be performed every two or three years to meet regulatory requirements. This assessment was performed on an accelerated schedule because of the significant findings and problems identified in the 2006 Fire Protection Program assessment.
- A-07-ESQ-RPPWTP-012, BNI Welding Chromium Industrial Health Exposure – the interview with the responsible lead in ESQ noted this was being done to evaluate the effectiveness of the Contractor's implementation of the recently revised statutory requirements that significantly limited personnel exposure to hexavalent chromium compared with the previous limits.
- In late FY 2006 and early FY 2007, ESQ noticed significant performance problems developing in Nuclear Quality Assurance-1 BNI programs and their implementation. This topic was discussed in the December 2007 APC meeting, with decisions made to revise the FY 2007 Oversight Assessment Schedule relative to BNI. Several planned assessments were removed from the schedule, and several new ones were added: 1) High-Level Waste Program Review Against Office of Civilian Radioactive Waste Management (OCRWM) Requirements Phase 1; 2) WTP Procurement Process; 3) WTP Commercial Grade Dedication; 4) WTP Training Program; 5) OCRWM Technical Review; 6) WTP Graded Approach Review; 7) BNI PIER, Corrective Action, Trending, and Lessons Learned Effectiveness; 8) Document Control and Records Management Review; 9) Design Control Program Review; and 10) NSQI Instructions and Procedures Review were all added to the schedule.

The assessor reviewed the ORP Assessment Analysis presented to the APC for the 3<sup>rd</sup> and 4<sup>th</sup> quarters 2006, and the 1<sup>st</sup> and 2<sup>nd</sup> quarters 2007 to evaluate the effectiveness of the analysis of BNI performance in areas typically assessed by ESQ. The assessor was looking particularly for information related to the above For-cause assessments to determine if the need for them was included in ESQ's analysis of quarterly assessment data. The information provided by ESQ for the presentations to the APC only included a list and description of findings from ESQ assessments performed over the quarter of interest, as well as some high level information derived from Contractor performance indicators (occurrence type detail, etc.). An interview with the ORP individual responsible for developing the APC presentation materials stated ESQ did not normally provide analysis of its assessment information and document this for inclusion in the overall presentation.

Based on the above, ESQ (as well as ORP overall) did not have an effective and repeatable way to trend contractor performance to enable it to analyze and draw conclusions about future assessment planning and For-cause assessments. However, the assessor noted the 2<sup>nd</sup> quarter 2007 Assessment Analysis (presented to the APC) included several recommendations to improve the ORP assessment program and its implementation – one of these was to develop an assessment selection tool which prioritizes reviews based on contractor organization performance, past findings, and current issues. Although this needs to be developed more fully, the assessor considered this may provide a methodology to track and trend contractor performance. **Observation A-07-ESQ-ORP-003-O01.**

### **3.1.7 Performance Monitoring**

ORP M 220.1, Revision 4, states Division Directors ensure Performance Indicators (PI) are established and used for allocating assessment resources and identifying needed reactive assessments. The Assessment Program Manager (APM) then establishes overall PIs on assessments, including indicators on results from assessments and on the assessment program itself.

ESQ tracked certain information and developed PIs to monitor its assessment program implementation, but only on the “front end” (timeliness of drafting the assessment report, getting it reviewed and approved, and issuing it to the Contractor) of program implementation. “Back end” performance that could provide valuable insights was not being monitored (timeliness of Contractor's submittal of the requested information to ESQ, timeliness of ESQ's review of the Contractor's initial submittal – usually within 30 days of the Contractor's submittal, three percent rejection of initial Contractor submittals, and four effectiveness of completed Contractor corrective actions. The assessor recommended ESQ develop and implement “back end” PIs.

**Recommendation A-07-ESQ-ORP-004-R03.**

### **3.1.8 Conclusion**

The assessor concluded ESQ personnel generally followed the assessment procedure and additional guidance in the form of DIs. However, personnel were somewhat confused due to the existence of some outdated instructions and guides that provided conflicting information relative to current expectations about program implementation. In addition, **Finding A-07-ESQ-ORP-004-F01** was cited due to lack of control and maintenance of ESQ records for qualification of assessment members and team leaders.

Assessment plans were documented and approved in advance of assessments, and plans for individual ESQ assessments were acceptable and consistent with procedural guidance and stated management expectations. The assessor noted ESQ assessments did not routinely note whether the Contractor initiated Corrective Action documents (PIERs, CARs, etc.) for issues that ESQ identified and discussed with the Contractor prior to the end of the assessments. The assessor recommended ESQ (and ORP) do this, in that it would provide ongoing insights about the Contractor's performance in the Corrective Action area. **Recommendation A-07-ESQ-ORP-004-R02.**

Because all findings are not of the same significance, the assessor recommended ORP consider establishing a graded approach to the timeframe for the Contractor to respond to findings, based in part on their significance, impact on personnel or equipment safety, etc. In addition, the assessor identified several other issues concerning the integrated assessment process that should be addressed in the next revision to ORP M 220.1. **Recommendation A-07-ESQ-ORP-004-R01.**

ESQ was not sharing results of its assessments with others in ORP as ORP M 220.1 required – this was **Finding A-07-ESQ-ORP-004-F02.** ESQ periodically identified the need to perform For-cause assessments, and revised the fiscal year Assessment Schedule to reflect the addition of these and deferral of others due to resource constraints. ESQ (as well as ORP overall) did not have an effective and repeatable way to trend contractor performance to enable it to analyze and draw conclusions about future assessment planning and For-cause assessments. **Observation A-07-ESQ-ORP-004-O01.** Although ESQ had established and was actively using PIs relating to timeliness of documenting, approving, and issuing its assessment reports, no PIs were in use to monitor the “back end” of the assessment process. The assessor recommended such PIs be developed and implemented. **Recommendation A-07-ESQ-ORP-004-R03.**

### **3.2 TRANSMITTAL OF ISSUES TO CONTRACTOR**

The assessor reviewed ESQ assessments to determine if issues identified by assessors were characterized in accordance with program requirements, and whether assessment reports were appropriately transmitted to the Contractor.

#### **3.2.1 Issue Characterization**

In general, ESQ characterized issues identified in assessments in accordance with requirements. However, the assessor noted the threshold for when to characterize an issue as a “Concern” was unclear. M 220.1, Revision 4 defined the term “Concern” as, “A determination of a programmatic breakdown or widespread problem supported by one or more Findings.” ESQ did not appear to be sensitive to possible characterization of assessment issues as “Concerns.”

**Observation A-07-ESQ-ORP-004-O02.**

The assessor identified the following assessments as having issues that may have constituted raising them to “Concerns.”

- Of all the assessments ESQ performed, the issues flowing from A-06-ESQ-RPPWTP-009 (BNI Quality Issues) - four broad-based findings, four observations, and the overall weakness

in nuclear safety culture - clearly deserved characterization as a “Concern.” Although it appeared BNI developed and began implementation of broad-based actions, characterizing this as a “Concern” would have placed it in the proper perspective.

- 2007 Commercial Grade Dedication assessment issues may have warranted being characterized as a “Concern,” notwithstanding having been the subject of Price-Anderson Amendments Act (PAAA) enforcement (the assessment was performed to determine if the Contractor had performed corrective action sufficiently effective to support closure of the enforcement action). An interview with the Lead Assessor indicated there was no discussion of characterizing the issues identified in the assessment as a “Concern” as the assessment moved up the management chain for approval.
- 2006 Fire Protection Implementation assessment issues (five findings, six observations – “... six Observations indicating a need for programmatic improvement.”) This may have warranted a “Concern” as well (albeit, narrowly focused on compliance of WTP/BNI warehouses to required Fire Protection standards).

### 3.2.2 Assessment Cover Letters

Cover letters consistently articulated the major conclusions about the areas assessed, clearly described negative performance issues, and were supported by compelling evidence in the bodies of the reports. The assessor concluded ESQ’s inclusion of specific examples for each negative performance issue was a **Good Practice**.

However, cover letters were inconsistent relative to the information ORP requested BNI provide when responding to findings – some requested BNI identify and report the cause(s) for the findings, while others did not. Based on a review of all ESQ assessments from 2005 through 2007 with findings that required a BNI response, 4 of 12 (33%) did not request BNI identify and report the cause(s) for the findings – See Table 1. This resulted in ESQ accepting some BNI responses in which corrective actions were provided but preventive actions were not.

**Observation A-07-ESQ-ORP-004-003.** Without identifying the causes for the findings and implementing preventive actions to address them, problems are more likely to recur. The following was one example:

- A-06-ESQ-RPPWTP-009 (Industrial Hygiene and Illness/Injury Recordkeeping) identified a finding concerning BNI not documenting performance of oversight on subcontractors for illness/injury record keeping. The cover letter did not request BNI to state the cause(s) for this problem; consequently, BNI’s response (CCN: 150803) only provided planned corrective actions (generated Analytical Technical Services items for each quarterly subcontractor assessment due in Calendar Year 2007). The assessor noted the applicable BNI procedure had required these assessments be done, and the corrective actions would simply implement the requirement that had always existed. Later in assessment A-07-ESQ-RPPWTP-007, ORP closed the finding based on BNI’s response as well as validating performance of two quarterly oversights on applicable subcontractors. However, without knowing why oversight of subcontractors was not previously performed and implementing preventive actions, it appeared likely this problem might recur. The assessor concluded an



example like this made a good case for ORP requiring BNI to identify the causes for findings when submitting formal responses.

For the most part, when ESQ requested a response to an observation from BNI, the reason or rationale was stated. The assessor identified one observation that appeared to warrant a response from BNI, but ESQ did not request one.

- A-06-ESQ-RPPWTP-011 (Fire Protection) – Observation 01 stated the Low-Activity Waste (LAW) Building fire sprinkler system was not yet in full compliance with National Fire Protection Association 13 requirements. Details provided in inspection notes revealed several problems with the “as built” system (some installations did not meet obstruction rules; sprinkler head positioning problems – lack of coverage in some areas, too close to walls, etc.). Since these problems involved already installed components/equipment, it is unclear whether BNI initiated Non-conformances, CARs, added them to a rolling construction punchlist, or documented them in some other corrective action documents – the assessment report was silent on this issue.

ESQ did not request BNI to submit a formal response to the observation; however, given the lack of clarity relative to whether or how the as-built problems would be corrected, it was unclear why a formal response was not requested.

### 3.2.3 Conclusion

The assessor concluded for the most part ESQ performed assessments in accordance with governing procedures and instructions, and in all instances, transmitted them to the Contractor under formal correspondence. Issues identified in assessments were almost always characterized correctly; however, the assessor found three assessments that identified issues of such significance that ESQ should have considered characterizing them as “Concerns.” **Observation A-07-ESQ-ORP-004-002.**

Cover letters clearly articulated the issues, framed appropriate messages to Contractor management, and were supported by compelling evidence in the bodies of reports. However, the letters did not always request the Contractor to identify the causes for findings when providing a written response, which allowed the potential for repeat problems due to the lack of preventive actions. **Observation A-07-ESQ-ORP-004-003.** A **Good Practice** was noted – ESQ cited the most significant examples for each negative performance issue in assessment cover letters.

### 3.3 STATUS REPORTING AND TRACKING OF FOLLOW-UP ITEMS

The assessor reviewed the open and closed followup items associated with ESQ assessments performed in 2005, 2006, and 2007 (through May) provided in a June 5, 2007, CARs printout sorted by inspection number. In addition, the assessor observed two weekly ESQ meetings (June 4 and 11) in which the VCD Team Lead reviewed open items and upcoming activities with the ESQ staff. In these meetings, an updated CARs printout (sorted by date and task id #) was used.

### 3.3.1 Entry of Followup Items into CARS

The assessor reviewed the selected assessments for followup items (observations and findings) and compared the results to CARS to determine if they were entered and tracked in CARS. With one exception (A-06-ESQ-RPPWTP-009-F02), findings from assessments were input to CARS for tracking and closure. However, the majority of observations requiring Contractor response via cover letters was not input to CARS (ESQ DI 1.2, Section 4.0) See Table 2.

Some cover letters contained committed followup actions (e.g., commitment to perform a specific, future assessment) that were not input and tracked in CARS, or in the ORP Oversight Assessment Schedule:

- A-07-ESQ-RPPWTP-006, Training Program Improvement Initiatives – “... weakness in rigor in closing a CAR, and more importantly, completely and thoroughly closing regulatory corrective action specified in a CAR and NTS Report. ORP requests BNI improve the closure process for CAR and NTS corrective actions to ensure committed actions have been thoroughly completed. Improvement to the BNI closure process will be verified in future ORP assessments.”
- A-07-ESQ-RPPWTP-003, Office of Civilian Radioactive Waste Management (RW) Quality Assurance (QA) Program – “As a result of the Team’s Findings, ORP will coordinate a review of BNI’s technical plan for meeting the WASRD to include technical and QA personnel from DOE EM, RW, and ORP to ensure the current BNI approach is consistent with DOE expectations for meeting WASRD requirements for ultimate disposal in a Federal repository. This assessment will be announced by separate correspondence.”
- A-05-ESQ-RPPWTP-006 (BNI Corrective Action Management) – this assessment identified a number of program implementation weaknesses, one of which was “corrective actions, in some instances, did not consistently prevent recurrence of exact or like problems.” The cover letter stated, “DOE will evaluate effectiveness through routine Facility Representative surveillances.”

### 3.3.2 Assignment of Due Dates for CARS Entries

The assessor found inconsistent entry of followup items into CARS, as well as unrealistic due dates for many followup items. Given the standard process of requiring BNI to provide written responses to findings (and some observations) within 30 days of their receipt, each followup item warrants a specific ESQ action in CARS to review/approve BNI’s initial response (which typically provides a “plan” for addressing the issue and an estimated completion date). Each followup item should also have an ESQ action in CARS to review the adequacy of completed BNI actions, with a due date approximately 30 days after the completion date for the last completed action.

The assessor found most followup items: 1) have no ESQ action in CARS to review and approve BNI’s 30-day response; and 2) have an apparent default due date of one year after the assessment issue date in CARS, which is typically not adjusted for the estimated or actual BNI completion date documented in BNI’s 30-day response. This resulted in untimely review and

approval of completed BNI actions for some followup items, as well as untimely due dates for closure of followup items pending ESQ review. Specifics are noted in Table 3 of the report.

### 3.3.3 Complex Followup Items

The assessor reviewed CARS entries for complex followup items to ensure that the logic for closing such items was documented in CARS subtasks. The assessor found one complex followup item that did not contain CARS subtasks, making it impossible to understand the actions necessary to effectively resolve and close the followup item.

Due dates in CARS for closing the four findings from late 2005 Assessment A-05-ESQ-RPPWTP-009 (BNI Quality Issues) were June 30, 2007, (for F03), and July 31, 2007, (for F01, 02, and 04). In the second quarter FY 2007, ESQ added a For-cause assessment to the FY 2007 Oversight Assessment Schedule for summer 2007 that was to focus on NSQI Instructions and Procedures; but during this assessment, this was deferred due to lack of resources.

The assessor was aware of BNI's NSQI that stemmed from the findings and observations from ESQ's 2005 assessment, as well as many internal BNI corrective actions and multiple BNI and ORP letters describing further actions and commitments. In addition, an assessment performed by WED in January 2007 (D-07-DESIGN-038) reviewed the adequacy of NSQI metrics and the effectiveness of BNI actions to date in improving its nuclear safety culture. Results of this assessment were not favorable.

The due dates for closure of the four assessment findings in CARS were not realistic, and unlike some other open assessment followup items, CARS did not contain subtasks that specified the set of actions necessary for successful closure. Due to the complexity of this "issue," a work breakdown structure (e.g., subtasks) for the necessary actions to close these findings should have been developed with the concurrence of BNI NSQI Project personnel and management, and documented in CARS so the success path and schedule were clear and reasonable.

ORP M 220.1, Revision 4, Section 6.3, Tracking states, "For tracking deficiencies, each AM assures CARS is maintained for those items under his/her purview." Contrary to this, the ESQ VCD Team Lead did not assure all assessment items requiring followup were entered into CARS with subtasks and due dates tied to BNI responses. **Finding A-07-ESQ-ORP-004-F03.**

### 3.3.4 Conclusion

ESQ Lead Assessors were not effectively managing followup items from their assessments, and the ESQ VCD Team Lead was not ensuring CARS was maintained for items under his purview. **Finding A-07-ESQ-ORP-004-F03.** This was supported by ESQ persons: 1) not placing observations requiring followup into CARS; 2) not placing commitments for future actions stated in assessment cover letters into CARS; 3) not assigning realistic due dates for followup items in CARS that were tied to BNI estimated 30-day response dates and estimated corrective action completion dates; and 4) not describing subtasks in CARS necessary for successful completion and closure of followup items for complex issues.

### **3.4 ADEQUACY OF ESQ ACCEPTANCE OF ACTIONS TO CLOSE FOLLOW-UP ITEMS**

#### **3.4.1 Adequacy of Closure**

The assessor reviewed a sample of 16 closed followup items (See Table 4) from ESQ assessments dating from 2005 to early 2007 to independently determine whether closure based on BNI responses/correspondence and ESQ followup reviews was warranted. BNI responses were found to have addressed the issues satisfactorily, and ESQ actions to validate BNI's completion of required corrective actions were appropriate and adequately documented. However, the assessor identified one example where closure of a followup item was inappropriate (due to confusion in the assessment report over the finding number):

- A-07-ESQ-RPPWTP-007 (OSHA Record Keeping) – The cover letter for this assessment (dated May 31, 2007) stated ORP closed Finding A-06-ESQ-RPPWTP-009-F01, which stated there was no documented evidence BNI had performed oversight on WTP subcontractors for illness/injury record keeping. However, Page 6 of the body of the report cited this issue as Finding F03. Separately, a June 5, 2007, CARS printout documented this issue as Finding F04.

Because of these inconsistencies, the CARS printout showed Finding F01 closed on March 27, 2007, but the description of this finding (BNI WTP Industrial Health program lacked a self-assessment plan) was different from that intended for closure. Thus, CARS Finding 04 (which described the correct issue) remained open in CARS after issuance of the assessment report that purportedly closed it. Subsequently during this assessment, Finding 04 was closed (June 6, 2007) based on an ongoing assessment in this functional area. However, “real” Finding F01 (BNI WTP Industrial Health program lacked a self-assessment plan) should probably remain open and the record corrected in CARS to reflect this.

**Recommendation A-07-ESQ-ORP-004-R04.**

#### **3.4.2 CARS Documentation for Closure**

ESQ DI 1.2, Section 4.5, CARS Data Entry, states information such as response letter number and date, and date corrective actions are expected to be complete should be added to the “Comments” section of CARS. The assessment report number or e-mail copy that documented closeout of the item should be documented in the “Closeout Method and Document Number” section of CARS. The assessor identified inconsistent documentation of reference documents in CARS pursuant to this guidance that supported closure of followup items. (See Table 4) Consistently entering this information would record all pertinent documents associated with closure of assessment followup items in a single location.

Interviews of several ESQ persons indicated they used the OA Database to document the basis for closing followup issues in CARS. Once individuals were informed by BNI the contractor had completed corrective actions for a given followup item, they would perform brief, focused evaluations (“surveillances”) of the adequacy of BNI's corrective actions through document/record reviews, interviews, and observations of work in the field. ESQ persons would document the results and conclusions in the OA Database, and ensure the related CARS item was

closed with a documented reference to the OA Database entry. The assessor considered this an effective way to document the basis for closure of followup items.

### **3.4.3 Validation of Effectiveness of Completed Corrective Actions**

No action items were placed in CARS to ensure future planned assessments in a given program/functional area included validation for effectiveness of corrective actions to previous followup items. The assessor believes not all followup items should be validated for effectiveness – only those with relative significance. In addition, it is possible pre-inspection planning may identify the need for validating the effectiveness of BNI actions to resolve issues and cause incorporation of validation actions in the future assessment plan.

Discussion with the ESQ VCD Team Lead revealed his expectation that followup on BNI's corrective action effectiveness was primarily accomplished via ESQ's review of BNI's effectiveness reviews performed as part of BNI CAR closure for the more significant CARs. If ESQ is doing this in practice, ESQ should add a subtask to followup items in CARS for which BNI will perform effectiveness reviews under their CAR closure to ensure effectiveness of actions taken to resolve significant issues is evaluated.

The assessor noted, however, that ESQ may want to followup on effectiveness of BNI corrective actions for items that may not have risen to a BNI CAR that required the Contractor to perform an effectiveness review. In such cases, ESQ would also need to add a CARS subtask to assign and complete the effectiveness review. **Observation A-07-ESQ-ORP-004-004.**

### **3.4.4 Conclusion**

From the sample of closed followup items, the assessor concluded the technical bases for resolving the majority of followup items were acceptable, and represented suitable bases for ESQ's closure of the items, notwithstanding some minor examples to the contrary (the record for Findings A-06-ESQ-RPPWTP-009-F01 and F04 should be corrected as a result of a minor discrepancy). **Recommendation A-07-ESQ-ORP-004-R04.** ESQ was using appropriate vehicles (assessment reports, e-mails, and OA Database entries) to document closure of followup items. However, in some cases, ESQ was not entering certain information suggested by ESQ DIs into CARS. No action items were placed in CARS to ensure future planned assessments in a given program/functional area included validation for effectiveness of corrective actions to previous followup items. **Observation A-07-ESQ-ORP-004-004.**

## **4.0 OPEN ITEMS**

### **4.1 FINDINGS**

- **Finding A-07-ESQ-ORP-004-F01** ORP M 220.1, Revision 4, Section 8.0, Records, states, "The following records generated by this procedure will be controlled and maintained by the generating organization ... e. Training and qualification records." Contrary to this, ESQ qualification records were not controlled and maintained in accordance with this requirement.

- **Finding A-07-ESQ-ORP-004-F02** ORP M 220.1, Revision 4, states, “The APC ensures a program is in place and functioning to share assessment results that may enhance assessments by other organizations.” In addition, “The APM (a) reviews reports for applicability to other ORP organizations and possible site-wide issues, (b) makes information available to ORP organizations, and (c) brings potential ORP-wide issues to the attention of the AM’s and the Deputy Manager.” Contrary to the above, discussions with ESQ personnel and review of ESQ, WED, and OCT assessment reports indicated sharing of assessment results and contractor performance insights was not being done.
- **Finding A-07-ESQ-ORP-004-F03** ORP M 220.1, Revision 4, Section 6.3, Tracking, states, “For tracking deficiencies, each AM assures CARS is maintained for those items under his/her purview.” Contrary to this, the ESQ VCD Team Lead did not assure all assessment items requiring followup were entered into CARS with subtasks and due dates tied to BNI responses.

#### 4.2 OBSERVATIONS

- **Observation A-07-ESQ-ORP-004-O01** ESQ (as well as ORP overall) did not have an effective and repeatable way to trend contractor performance to enable it to analyze and draw conclusions about future assessment planning and For-cause assessments.
- **Observation A-07-ESQ-ORP-004-O02** ESQ did not appear to be sensitive to possible characterization of assessment issues as “Concerns.”
- **Observation A-07-ESQ-ORP-004-O03** Cover letters were inconsistent relative to the information ORP requested BNI provide when responding to findings – some requested BNI identify and report the cause(s) for the findings, while others did not.
- **Observation A-07-ESQ-ORP-004-O04** ESQ is not tracking actions in CARS that it intends to take to ensure completed Contractor corrective actions were effective in resolving the related followup item.

#### 4.3 RECOMMENDATIONS

- **Recommendation A-07-ESQ-ORP-004-R01** The assessor recommended ORP consider revising ORP M 220.1 to address the issues noted in Section 3.1.3.
- **Recommendation A-07-ESQ-ORP-004-R02** Documenting whether the Contractor initiated a PIER on issues identified by ESQ during their assessments would be useful for determining the Contractor’s performance in the Corrective Action area over time, and the assessor recommended that ESQ (and ORP) adopt this practice.
- **Recommendation A-07-ESQ-ORP-004-R03** The assessor recommended ESQ develop and implement “back end” PI’s in addition to assessment-related “front end” PI’s ESQ is already using.

- **Recommendation A-07-ESQ-ORP-004-R04** “Real” Finding F01 (BNI WTP Industrial Health program lacked a self-assessment plan) should probably remain open and the record corrected in CARS to reflect this.

## **5.0 REFERENCES AND PERSONNEL CONTACTED**

### **5.1 REFERENCES**

ESQ Assessment A-05-ESQ-RPPWTP-001, Procurement Process Assessment Report

ESQ Assessment A-05-ESQ-RPPWTP-002, Review of OSHA Injury/Illness Recordkeeping for February 28 Through March 8, 2005

ESQ Assessment A-05-ESQ-RPPWTP-003, BNI QA Program Assessment for the Period June 6 Through June 14, 2005

ESQ Assessment A-05-ESQ-RPPWTP-004, BNI PAAA Program Assessment for the Period July 25 Through August 5, 2005

ESQ Assessment A-05-ESQ-RPPWTP-006, Assessment of BNI Corrective Action Management Program

ESQ Assessment A-05-ESQ-RPPWTP-007, Review of OSHA Injury/Illness Recordkeeping for September 26 Through October 11, 2005

ESQ Assessment A-05-ESQ-RPPWTP-008, BNI Employee Concerns Program

ESQ Assessment A-05-ESQ-RPPWTP-009, BNI Quality Issues for the Period September 26 Through October 12, 2005

ESQ Assessment A-05-ESQ-RPPWTP-010, Radiological Control Program October 17 Through October 25, 2005

ESQ Assessment A-06-ESQ-RPPWTP-001, Fire Protection Program Implementation Assessment

ESQ Assessment A-06-ESQ-RPPWTP-002, Industrial Health and Safety Program Assessment

ESQ Assessment A-06-ESQ-RPPWTP-005, Review of OSHA Injury/Illness Recordkeeping for April 10 Through April 14, 2006

ESQ Assessment A-05-ESQ-RPPWTP-006, Assessment of BNI Employee Concerns Program

ESQ Assessment A-06-ESQ-RPPWTP-007, BNI QA Program Assessment

ESQ Assessment A-06-ESQ-RPPWTP-009, Review of OSHA Injury/Illness Recordkeeping for September 25 Through September 29, 2006

ESQ Assessment A-06-ESQ-RPPWTP-010, ALARA Assessment – Offset Piping/Conduit Assemblies Issue

ESQ Assessment A-06-ESQ-RPPWTP-011, LAW Sprinkler System Installation and Life Safety During Construction

ESQ Assessment A-07-ESQ-RPPWTP-001, Fire Protection Program Implementation Assessment

ESQ Assessment A-07-ESQ-RPPWTP-002, Assessment of the BNI Procurement QA Program

ESQ Assessment A-07-ESQ-RPPWTP-003, QA Program Review January 16 Through February 5, 2007

ESQ Assessment A-07-ESQ-RPPWTP-005, Commercial Grade Dedication

ESQ Assessment A-07-ESQ-RPPWTP-006, BNI Training Program Improvement Initiatives Assessment

ESQ Assessment A-07-ESQ-RPPWTP-007, OSHA Injury/Illness Recordkeeping for April 23 Through May 14, 2007

APC Slide Presentation Second Quarter FY 2007, Slide Number 31, Assessment Program Recommendations

ORP letter from J. R. Eschenberg to C. M. Albert, BNI, “S-06-ESQ-RPPWTP-006, Corrective Action Closure Verification Surveillance for Findings of Assessment A-05-ESQ-RPPWTP-004, BNI Price Anderson Amendments Act Program Assessment,” 06-ESQ-113, dated October 5, 2006

ORP letter from J. R. Eschenberg to J. Betts, BNI, “Acceptance of BNI Response to A-05-ESQ-RPPWTP-007, Assessment of Occupational Health and Safety Injury/Illness Recordkeeping, September 26 Through October 11, 2005,” 06-ESQ-009, dated February 10, 2006

24590-WTP-CAR-QA-06-136, “Corrective Action Report, Impaired Fire Barriers A-06-ESQ-RPPWTP-001-F02,” Revision 0, Bechtel National, Inc., Richland, Washington.

24590-WTP-CAR-QA-06-091, “Corrective Action Report” Fire System Impairment Program, Revision 0, Bechtel National, Inc., Richland, Washington.

24590-WTP-CAR-QA-06-066, “Corrective Action Report Fire System Testing Qualifications,” Revision 0, Bechtel National, Inc., Richland, Washington.

24590-WTP-CAR-QA-06-143, “Corrective Action Report, Inspection, Testing, and Maintenance of Exit Signs, Emergency Lighting, Fire Alarm Systems,” Bechtel National, Inc., Richland, Washington.



BNI's Status of ESQ Findings and Followup Items Excel Spreadsheet, dated June 7, 2007.

ESQ Personnel Qualification Records

OA Database Report #1398, Closeout Findings A-06-ESQ-RPPWTP-002-F01 and F02, dated May 15, 2007.

OA Database Report #1398, Closeout Findings A-06-ESQ-RPPWTP-002-F01 and F02, dated May 15, 2007.

OA Database Report #1419, Surveillance of WTP Fire Hazard Analysis Modeling and Methodology, dated May 23, 2007.

ORP CARS ESQ Assessment Activities Report Printout as of June 5, 2007 (sorted by inspection number)

ORP CARS ESQ Assessment Activities Report Printouts as of June 4, 2007, and June 11, 2007 (sorted by due date, task id).

ORP FY 2007 Oversight Assessment Schedule, status as of May 3, 2007.

ORP M 220.1, "Integrated Assessment Program," Revision 4, U.S. Department of Energy, Office of River Protection, Richland, Washington.

ESQ DI 1.2, Assessment Tracking and Reporting, Revision 0

ESQ DI 1.3, Assessment Finding Closure Process, Revision 0

Memorandum, P. P. Carier to W. J. Taylor, ESQ Assessment Averages, dated May 7, 2007

## **5.2 PERSONNEL CONTACTED**

P. Carier  
C. Christenson  
L. Gouveia  
P. Hernandez  
J. Polehn  
B. Taylor  
C. Ungerecht  
S. Vega

**Table 1**

**Assessment Cover Letters That Requested BNI Respond to Findings**

<b>Assessment Report Number</b>	<b>Requested Causes For Findings (Yes/No)</b>
A-07-ESQ-RPPWTP-005	Yes
A-07-ESQ-RPPWTP-003	Yes
A-07-ESQ-RPPWTP-002	Yes
A-06-ESQ-RPPWTP-009	<b>No</b>
A-06-ESQ-RPPWTP-006	<b>No</b>
A-06-ESQ-RPPWTP-005	Yes
A-06-ESQ-RPPWTP-002	Yes
A-06-ESQ-RPPWTP-001	<b>No</b>
A-05-ESQ-RPPWTP-009	Yes
A-05-ESQ-RPPWTP-007	<b>No</b>
A-05-ESQ-RPPWTP-004	Yes
A-05-ESQ-RPPWTP-002	Yes

**Table 2**  
**Tracking of Observations for Followup**

<b>Observation Number</b>	<b>Topic</b>	<b>Issue Date</b>
<b>NOT Tracked in CARS</b>		
A-07-ESQ-RPPWTP-005-001 through O05	Commercial Grade Dedication	5/31/07
A-07-ESQ-RPPWTP-003-001	RW QA Program	3/26/07
A-07-ESQ-RPPWTP-002-001	Procurement QA	3/6/07
A-07-ESQ-RPPWTP-001 (requires BNI to respond to open Observations O05 from the 2006 Fire Protection assessment)	Fire Protection	3/28/07
A-06-ESQ-RPPWTP-002-A01 (an AFI, not an Observation)	Industrial Health and Safety	5/15/06
A-05-ESQ-RPPWTP-008-001	Employee Concerns Program (ECP)	8/31/05
<b>Tracked in CARS</b>		
A-05-ESQ-RPPWTP-004, O01 through O7	BNI PAAA	12/29/05
A-06-ESQ-RPPWTP-001-O03, -04, and -06	Fire Protection	4/17/06

**Table 3**

**Followup Items with Unrealistic Due Dates**

<b>F/U Item Number (Topic) (Issue Date)</b>	<b>Due Date</b>	<b>Contractor Letter Response (Date)</b>	<b>BNI Corrective Action Number (Due Date for Last Contractor Action)</b>	<b>Comments</b>
A-06-ESQ-RPPWTP-001-F01 (Fire Prot) (4/17/2006)	5/30/2008	BNI CCN: 138410 (5/17/2006) BNI CCN: 154591 (4/11/2007)	CAR-06-139 (Management assessment and corrective actions to complete by 9/30/2006)  CR-06-187 (TBD, but other related actions to be completed by 9/24/2007)	Based on the majority of Contractor corrective actions due for completion by late September 2007, ESQ has assigned a closure date 8 months beyond that date
A-06-ESQ-RPPWTP-001-F05 (Fire Prot) (4/17/2006)	3/31/2008	BNI CCN: 138410 (5/17/2006) BNI CCN: 154591 (4/11/2007)	CAR-06-139 (Management assessment and corrective actions to complete by 9/30/2006)  CR-06-187 (Actions to address this Finding are complete as of the date of the BNI letter)	ESQ has given itself more than 10 months beyond Contractor completion to close this Finding
A-06-ESQ-RPPWTP-001-O04 (Fire Prot) (4/17/2006)	12/13/2007	BNI CCN: 138410 (5/17/2006)	RITS-06-475 (No estimated completion date provided for actions described by BNI)	Cover letter for ESQ A-07-ESQ-RPPWTP-001, Fire Protection Program Implementation, (3/28/2007) requested this Observation be responded to by BNI with their strategy, plans, and schedule by 4/28/07).

Independent Assessment of Environmental, Safety and Quality (ESQ) Oversight Program  
A-07-ESQ-ORP-004

A-07-ESQ-RPPWTP-002-F01 (Procurement QA) (3/6/2007)	3/6/2008	BNI CCN: 154593 (4/25/2007)	CR-07-107 (11/29/2007)	ESQ has given itself approximately 3 months beyond Contractor completion to close this Finding
A-07-ESQ-RPPWTP-002-F02 (Procurement QA) (3/6/2007)	3/6/2008	BNI CCN: 154593 (4/25/2007)	CR-07-110 (5/31/2007)	ESQ has given itself more than 9 months beyond Contractor completion to close this Finding
A-07-ESQ-RPPWTP-002-F03 (Procurement QA) (3/6/2007)	Unknown – not in CARS	BNI CCN: 154593 (4/25/2007)	CR-07-108 (6/6/2007)	Not in CARS – not tracking this open Finding requiring followup and closure
A-07-ESQ-RPPWTP-002-O01 (Procurement QA) (3/6/2007)	Unknown – not in CARS	BNI CCN: 154593 (4/25/2007)	PIER-07-341 (5/31/2007)	Not in CARS – not tracking this open Observation requiring followup and closure
A-07-ESQ-RPPWTP-003-F01 (Office of Civilian Waste Management QA) (3/26/2007)	3/26/2008	BNI CCN: 155535 (4/27/2007)	CR-07-118 (12/31/2007)	ESQ has given itself approximately 3 ½ months beyond Contractor completion to close this Finding
A-07-ESQ-RPPWTP-003-F02 (Office of Civilian Waste Management QA) (3/26/2007)	3/28/2008	BNI CCN: 155535 (4/27/2007)	CR-07-119 (12/31/2007)	ESQ has given itself approximately 3 ½ months beyond Contractor completion to close this Finding
A-07-ESQ-RPPWTP-003-F03 (Office of Civilian Waste Management QA) (3/26/2007)	3/28/2008	BNI CCN: 155535 (4/27/2007)	CR-07-120 (Actions to address this Finding are complete as of the date of the BNI letter)	ESQ has given itself more than 11 months beyond Contractor completion to close this Finding
A-07-ESQ-RPPWTP-003-F04 (Office of Civilian Waste	3/28/2008	BNI CCN: 155535 (4/27/2007)	CR-07-121 (6/15/2007)	ESQ has given itself 9 months beyond Contractor completion to close this Finding

Independent Assessment of Environmental, Safety and Quality (ESQ) Oversight Program  
A-07-ESQ-ORP-004

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Management QA) (3/26/2007)				
A-07-ESQ- RPPWTP-003- O01 (Office of Civilian Waste Management QA) (3/26/2007)	Unknown – not in CARS	BNI CCN: 154593 (4/25/2007)	PIER-07-388 (12/31/2007)	Not in CARS – not tracking this open Observation requiring followup and closure

**Table 4**

**CARS Closure of Followup Items**

<b>Followup Item Number</b>	<b>CARS Closure Reference Cited</b>	<b>BNI Response Letters Cited</b>
A-05-ESQ-RPPWTP-004-F01, O01 through O07 (8 items)	S-06-ESQ-RPPWTP-006, Corrective Action Closure Verification Surveillance for Findings of Assessment A-05-ESQ-RPPWTP-004	None
A-05-ESQ-RPPWTP-006-F01 (1 item)	Closed in the same assessment report that opened it	None required
A-05-ESQ-RPPWTP-007-F02 (1 item)	None (Note: Although CARS did not cite closure references or any basis for closure, a check of the BNI IDMS identified a BNI response letter and an ORP letter accepting the response and closing the item)	None
A-06-ESQ-RPPWTP-001-F01, F03, F04, and O03 (4 items)	A-07-ESQ-RPPWTP-001, Fire Protection Program One Year Followup	None
A-06-ESQ-RPPWTP-002-F02 (1 item)	OA Database “report” documenting the results of a 5/15/07 site walkdown	None
A-06-ESQ-RPPWTP-009-F01 (1 item)	A-07-ESQ-RPPWTP-007 (closed F01 on 3/27/07 per CARS printout of 6/5/07 based on the above assessment report, but not described as the same issue – actual issue description based on that closed in this report related to F04 from the assessment (which was closed in CARS on 6/6/07). The “real” F01 should probably still be open.)	None
<b>Total</b>	<b>13 of 16 Acceptable (83%)</b>	<b>0 of 16 Acceptable (0%)</b>

## **Appendix A - Oversight Plan**



**OVERSIGHT PLAN**

**INDEPENDENT ASSESSMENT OF WTP ENVIRONMENTAL SAFETY AND HEALTH  
QUALITY (ESQ) ASSESSMENT PROGRAM**

**JUNE 4 through 14, 2007**

**Oversight Report: A-07-ESQ-ORP-004**

**Submitted by:**

\_\_\_\_\_ Date \_\_\_\_\_  
Richard W. Cooper, II, Assessment Lead  
Independent Consultant to ORP

**Concurred By:**

\_\_\_\_\_ Date \_\_\_\_\_  
Patrick P. Carrier, Lead, Verification and Confirmation Division

**Approved By:**

\_\_\_\_\_ Date \_\_\_\_\_  
William J. Taylor, Assistant Manager, Office of Environmental Safety and Quality

## **1.0 BACKGROUND, PURPOSE, AND OBJECTIVES**

### **1.1 BACKGROUND**

The Office of Environmental Safety and Quality (ESQ) staff has primary responsibility for programmatic oversight of the U.S. Department of Energy, Office of River Protection (ORP) prime contractors (Bechtel National, Inc. [BNI], CH2M HILL Hanford Group, Inc., and Advanced Technologies and Laboratories International, Inc.). Over the last several years, assessment plans were executed with reports issued and actions tracked to provide active oversight of the following programs: 1) Quality Assurance; 2) Radiological Controls; 3) Fire Protection; 4) Industrial Health and Safety; and 5) Computerized Accident/Incident Reporting System. These assessments were performed to ensure requirements for these programs were properly implemented. This independent assessment will evaluate the results of the oversight performed by ESQ since early 2005 to mid-2007 in order to focus more heavily on recent assessment issues and how they were managed to closure. In addition, this assessment will focus only on oversight of BNI as documented in ESQ assessments. The assessment will evaluate the extent to which assessments were performed in accordance with governing procedures (ORP M 220.1), applicable desk instructions, and whether they were properly transmitted to the Contractor for action, followed to resolution in a timely, traceable, and recoverable manner, and resolved effectively.

### **1.2 PURPOSE**

This independent assessment is being done to determine the extent to which ESQ is implementing its assessment program, and whether the program is providing effective Contractor oversight at the Waste Treatment and Immobilization Plant (WTP) site. Such an assessment has not been done before; hence, this assessment will establish baseline performance such that future assessments may provide insights on ESQ performance trends.

### **1.3 OBJECTIVES**

The following are the specific objectives of this oversight:

1. Evaluate compliance of ESQ assessments to governing instructions.
2. Review select ESQ assessments performed since early 2005 to determine issues identified and whether they were appropriately transmitted to the Contractor.
3. Review the adequacy of the program for tracking of ESQ assessment issues, including placement of such issues in the Consolidated Action Reporting System (CARS) (or another acceptable database) for assuring visibility of issues requiring Contractor actions and timely reviews by ESQ for acceptance.
4. Evaluate ESQ acceptance of Contractor actions to assure these were effective in resolving the issues being tracked, and that documentation in the database properly reflects issue closure.

## **2.0 PROCESS**

This oversight shall be conducted within the guidelines of governing instructions and implementing procedures.

### **2.1 SCOPE**

This independent assessment will include review of selected issues identified in ESQ assessment reports from early 2005 to mid-2007.

### **2.2 PREPARATION**

1. Identify the ESQ authors involved in the performance and review of assessments.
2. Obtain the list of ESQ assessments performed from 2005 to mid-2007 and obtain copies of the reports and transmittal letters to the Contractor. Select several assessments for detailed review and follow-up.
3. Obtain copies of the database used to track issues from assessment reports, and any correspondence (internal ORP memoranda, letters from Contractor, etc.) that documented completed actions sufficient to close the issues.
4. Obtain information (in database or letters) indicating review and acceptance by ESQ of Contractor actions for closure of issues. Independently review documentation reflecting the basis for issue closure that was acceptable to ESQ to determine whether this was effective in resolving the issue.
5. Notify ESQ (and Contractor) personnel of interviews required to assess their knowledge of Contractor corrective actions taken for issues raised in assessment reports.

### **2.3 REVIEW**

This independent assessment will confirm assessment issues were properly transmitted to the Contractor for action and, for issues dispositioned to date, the assessment will evaluate the adequacy of the disposition and the proper recording of it in ESQ records. In addition, this assessment will determine if any issues identified in assessments were not communicated to the Contractor or if Contractor responses were delinquent, and will provide this listing to ESQ for action by responsible personnel.

Debrief WTP Project management periodically, as required. Prepare a draft report summarizing the activities, results, conclusions, and recommendations from the assessment. Issue the draft assessment report for review and comment by WTP Project management and Contractor personnel, if necessary. The final report will resolve comments received on the draft report.

### 3.0 SCHEDULE OF ACTIVITIES

Table 2 summarizes the schedule for completion of this independent assessment.

### 4.0 DOCUMENTATION

The final report of this task shall contain the sections and content as summarized in the ESQ governing instruction.

The issues identified in this independent assessment shall be listed in the final report. Each issue shall be assigned a type of issue and an item number for tracking to resolution through CARS (or another acceptable database).

### 5.0 CLOSURE

The Assessment Lead with concurrence of the ESQ Lead shall confirm that the items from this oversight are adequately resolved.

**Table 1 – Initial Information Requirements**

1.	Copies of all ESQ assessment reports (and plans) since early 2005, and associated WTP Project correspondence forwarding assessment results to the Contractor (and particularly issues requiring resolution by the Contractor).
2.	Contractor response letters to ESQ identifying corrective actions to be taken for assessment issues.
3.	Status tracking information/databases for ESQ assessment report issues (whether requiring Contractor actions or not).
4.	Copies of Contractor letters to ESQ that describe actions being taken or completed to resolve issues from assessments, as well as ESQ documentation providing the basis for acceptance of Contractor actions for issue closure.
5.	Copies of meeting minutes involving discussions about actions needed or completed for resolution of ESQ assessment issues.
6.	ORP Annual Assessment Plan (and revisions to it) for Fiscal Year 2007, 2006, and 2005 showing ESQ planned assessment for the subject fiscal years.
7.	Qualification records for ESQ personnel who are qualified as assessment team leaders, as well as assessment team members.
8.	ESQ trending “reports” or related information issued quarterly for discussion in the Assessment Program Committee.

**Table 2 – Schedule**

<b>Activity Description</b>	<b>Responsibility</b>	<b>Complete By</b>
Develop Oversight Assessment Plan	Cooper	05/30/07
Identify Assessment Lead	Eschenberg	04/15/07
Obtain approved plan	Carier	06/01/07
Obtain initial information defined in Table 1 above to support review and provide to Assessment Lead (or assure the availability of information onsite)	Carier	06/04/07
Qualify Assessment Lead – Attachment 9.1	Eschenberg	03/13/07
Kick-off meeting with ESQ to outline objectives, scope, schedule, and establish Point-of-Contact	Carier, Cooper	06/04/07
Review documents from ESQ and provide oversight strategy, lines of inquiry, and interview requests to Point-of-Contact	Cooper	06/06/07
Perform independent assessment	Cooper	06/04/07-06/14/07
Prepare Draft Independent Assessment Report Notes	Cooper	06/14/07
WTP Project Exit Briefing	Cooper and WTP Project Management	06/14/07
Draft Report	Cooper	06/28/07
Resolve comments and place Final Report into concurrence including factual accuracy review with Contractor (if necessary)	Cooper	07/12/07
Issue Final Report	Cooper	07/16/07