

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

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**MANAGEMENT ASSESSMENT OF  
OFFICE OF RIVER PROTECTION'S  
CORRECTIVE ACTION MANAGEMENT SYSTEMS**

**June 2007**

**Corrective Action Management Assessment**

**A-07-ESQ-ORP-002**

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

**ASSESSMENT:** Management Assessment of the Office of River Protection Corrective  
Actions Management Systems

**REPORT:** A-07-ESQ-ORP-002

**FACILITY:** 2440 Stevens Building

**LOCATION:** Richland, Washington

**DATES:** May 15, 2007, through June 11, 2007

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## Executive Summary

The U.S. Department of Energy (DOE), Office of River Protection (ORP) conducted a management assessment of the effectiveness of DOE and contractor corrective action implementation and closure. The management assessment was performed by the Office of Environmental Safety and Quality (ESQ) organization which is responsible for coordination of ORP oversight, quality assurance, Integrated Safety Management, and assurance systems for the Office of the Manager. The purpose of the management assessment was to:

- Evaluate ORP compliance with the Office of Health, Safety, and Security (HSS) and Office of Environmental Management requirements and expectations for tracking corrective actions in the HSS Corrective Action Tracking System (CATS)
- Evaluate the effectiveness of ORP processes and systems for corrective action management
- Evaluate the effectiveness of ORP and contractor corrective action tracking, reporting, closure, and effectiveness verification

### Conclusions

**No issues with ORP use of CATS** – The assessment team reviewed ORP issues in the HSS CATS and found that, during the last three years, ORP was required to submit 18 Findings and 129 corrective actions for tracking. These were all from one assessment. The items were all properly entered into CATS and subsequently closed out, and a follow-up ORP assessment found the corrective actions were effective.

**Effective ORP closure processes** – The assessment team reviewed 21 ORP assessments conducted over a two year period to determine if corrective action completion was verified and if effectiveness of corrective actions was subsequently verified. The assessment team found ORP verified objective evidence of corrective action completion before closing Findings. The assessment team also found procedures for all ORP organizations conducting assessments included provisions for verifying the effectiveness of corrective actions. The assessment team found ORP assessors looked for and occasionally identified ineffective corrective actions, although recent assessments found corrective actions were normally effective. The ORP Consolidated Action Reporting System (CARS) was an effective corrective action management system which provided real-time status and was accessible by management. Also, the ORP Manager's Top Ten Issues and Deliverables Report was an effective method for identifying issues in CARS to senior ORP managers.

Bechtel National, Inc. (BNI) and CH2M HILL Hanford Group, Inc. (CH2M HILL) corrective action management procedures included provisions for verifying objective evidence of completed corrective actions. They also included provisions for verifying effectiveness of corrective actions for significant issues.

**Differing ORP procedures and tracking processes** – Although ORP organizations generally followed the ORP oversight procedure, ORP M 220.1, “Integrated Assessment Program,” and used CARS for the action tracking tool, some ORP organizations followed different corrective action management procedures (primarily Facility Representatives), and used different methods for tracking ORP assessment issues. This is an area that ORP management recognized as an area for improvement, and ESQ developed a draft ORP-wide assessment program procedure revision that will require Facility Representatives and Construction Inspectors to follow the same procedure and use the same tracking systems as other ORP organizations. This procedure is being reviewed by the affected organizations and will be issued by August 31, 2007.

**Evolving contractor issues management processes** – CH2M HILL has a mature corrective action management system in their Problem Evaluation Request (PER) system. Because of weaknesses in BNI corrective action processes identified in ORP assessments, BNI established a new system in July 2006 modeled after the CH2M HILL PER process called the Project Issues Evaluation Report. At the time of this management assessment, ORP just completed a field assessment of the BNI corrective action system to verify its effectiveness. The report, scheduled for release the week of July 2, 2007, determined that BNI is effectively implementing a corrective action management program that meets the requirements of the quality assurance rule, the DOE Quality Assurance Order, and the BNI Quality Assurance Manual. However, the assessors identified a number of instances where BNI failed to comply with implementing procedures. Additionally, the reviewers identified several opportunities for improving the BNI corrective action management plan. BNI will prepare a corrective action plan to resolve the ORP concerns and issues.

**Tracking systems** – The ORP CARS is a viable corrective action management system which provides real-time progress and is easily accessible to management and staff.

The assessment identified no Findings but made three Observations as follows:

- **Observation A-07-ESQ-ORP-002-O01** – ESQ should revise their desk instruction ORP DI 1.3 “Assessment Finding Closure Process” for consistency with the current revision to ORP M 220.1, “Integrated Assessment Program.”
- **Observation A-07-ESQ-ORP-002-O02** – ORP should develop a metric showing timeliness of issue closures.
- **Observation A-07-ESQ-ORP-002-O03** – ORP should institutionalize the existing metric measuring timeliness of assessment report development and issuance.

## Table of Contents

<b>Executive Summary</b> .....	<b>iii</b>
<b>Table of Contents</b> .....	<b>v</b>
<b>List of Acronyms</b> .....	<b>vi</b>
<b>1.0 Introduction</b> .....	<b>1</b>
<b>2.0 Background</b> .....	<b>1</b>
<b>3.0 Purpose, Scope, and Approach</b> .....	<b>1</b>
<b>4.0 Results and Conclusion</b> .....	<b>13</b>
<b>4.1 Path Forward</b> .....	<b>14</b>
<b>5.0 References</b> .....	<b>14</b>

**List of Acronyms**

Acronym	Description
AM	Assistant Manager
APC	Assessment Program Committee
BNI	Bechtel National, Inc.
CAMP	Corrective Action Management Program
CAP	Corrective Action Plan
CAR	Corrective Action Report
CARS	Consolidated Action Reporting System
CATS	Corrective Action Tracking System
CH2M HILL	CH2M HILL Hanford Group, Inc.
DI	Desk Instruction
DOE	U.S. Department of Energy
EM	Office of Environmental Management
ESQ	Office of Environmental Safety and Quality
FR	Facility Representative
HSS	Office of Health, Safety, and Security
MOU	Memorandum of Understanding
NSQI	Nuclear Safety Quality Initiative
OA	Office of Independent Oversight and Performance Assurance
ORP	Office of River Protection
PAAA	Price-Anderson Amendments Act
PER	Problem Evaluation Request
PIER	Project Issues Evaluation Report
QAP	Quality Assurance Program
RL	Richland Operations Office
S&S	Safeguards and Security
SES	Security and Emergency Services Division
TF	Tank Farm Project
WED	WTP Engineering Division
WTP	Waste Treatment and Immobilization Plant

## **U.S. Department of Energy (DOE), Office of River Protection (ORP) Corrective Action Management Assessment**

### **1.0 Introduction**

This assessment evaluated the performance of the ORP corrective action management systems respective to DOE Headquarters requirements, reporting effectiveness, corrective action closure effectiveness, contractor systems, and trending analysis.

### **2.0 Background**

Dr. Inès Triay, Office of Environmental Management (EM), issued an April 25, 2007, memorandum, "Corrective Action Management Expectations and Actions" directing field offices to review all corrective action processes and determine whether they effectively resolve issues. The memorandum suggested some topical areas as potential areas of review, including:

- Work control
- Quality of design and authorization documents
- Causal analysis
- Corrective action
- Cyber security
- Safeguards and Security
- Emergency management

### **3.0 Purpose, Scope, and Approach**

#### **3.1 Purpose**

In response to the EM memorandum, the ORP Acting Manager requested the Office of Environmental Safety and Quality (ESQ) to perform a management assessment of the ORP corrective action management system to determine corrective action effectiveness for DOE and the ORP contractors.

#### **3.2 Scope**

The assessment evaluated corrective action management activity for the period of June 2005 to present. It included reviews of the ORP corrective action management system, associated procedures, design oversight assessment reports, tank farm vapor corrective action plans and corrective action effectiveness reviews, quality assurance program assessment reports and

corrective action effectiveness reviews, DOE oversight reviews, Consolidated Action Reporting System (CARS) items, and ORP issues management processes.

### **3.3 Approach**

The assessment team reviewed procedures and documents, and interviewed DOE ORP personnel to determine whether ORP corrective action management complied with governing directives and management expectations. The assessment team also reviewed documents and interviewed ORP personnel to determine the effectiveness of DOE and contractor corrective action closure and effectiveness verification processes.

This assessment focused on the following areas:

- Design of the current corrective action systems and processes
- Closure of ORP corrective actions in the Office of Health, Safety, and Security (HSS) Corrective Action Tracking System (CATS)
- ORP verification of completed corrective actions for ORP issues in contractor work control and quality assurance programs
- ORP verification of effectiveness of completed corrective actions for ORP issues in contractor work control and quality assurance programs
- ORP processes for assuring contractor corrective action management systems verify completion of corrective actions
- ORP processes for assuring contractor corrective action management systems verify effectiveness of corrective actions

### **3.4 Results**

#### **3.4.1 DOE and ORP Corrective Action Management System and Process**

The team reviewed the procedures ORP used to control assessments, focusing particularly on the closure process for Findings and concerns and how effectiveness of corrective actions is assured.

The assessors considered the following criteria for this evaluation:

- Does ORP have an established corrective action management system sufficient to meet the approved DOE directives and all DOE EM and ORP Safety Management Functions, Responsibilities, and Authorities Manual functions and responsibilities?
- Is the ORP corrective action management system integrated with DOE Headquarters corrective action systems?



- Are DOE ORP and ORP contractor corrective action closure and effectiveness verification processes effective?
- Does management have access to information on the progress and status of corrective actions?

### Assessment Observations

ORP M 220.1 specified the ORP process for documenting, managing, and closing assessment issues for most ORP organizations. This procedure implemented the assessment and issues management requirements of ORP M 414.1, Revision 2, "Quality Assurance Program Description," which in turn implemented the requirements of DOE O 414.1C, "Quality Assurance," and DOE O 226.1, "Implementation of Department of Energy Oversight Policy." Section 6.3 of this procedure required that Findings and concerns be entered into the ORP CARS automated issues management tracking system, and Section 6.4 of ORP M 220.1 required divisions to schedule assessment activities to verify the effectiveness of corrective actions. CARS reports were available to managers to, among other things, track the status of open assessment issues and determine if ORP personnel were closing issues.

The CARS process required all ORP organizations to input their corrective actions into CARS on a weekly basis. Corrective action due dates were not changed without management approval. DOE ORP corrective actions input into CATS were also input into CARS for integration and reporting purposes.

While ORP M 220.1 could be followed without supplemental instructions, several ORP organizations had written additional directives to describe how the requirements of ORP M 220.1 would be met in their organizations. These supplemental directives led to situations in which the presentation and tracking of issues had varied significantly between organizations. As a result, at the time of the assessment fieldwork, ORP management was circulating for concurrence a revision to ORP M 220.1 that would unify reporting format and other assessment processes.

Revision 4 to ORP M 220.1, which was current during the assessment fieldwork, did not apply to Facility Representatives (FR). However, the draft Revision 5 would require FRs and Construction Inspectors to follow the same corrective action management processes used by other ORP organizations, including CARS and the Operational Awareness Oversight (OA) database. ORP used the OA database to identify assessment status and results, but it was not a complete issues management tool. ORP used CARS to track status and closure of assessment issues.

The assessment team reviewed all ORP oversight and issues management procedures and found ESQ procedure ORP Desk Instruction (DI) 1.3, "Assessment Finding Closure Process" was outdated. ESQ had not revised the procedure for consistency with the existing revision to ORP M 220.1.

The assessors reviewed historical ESQ metrics concerning durations for the preparation and release of assessment reports. During the last year, the number of days to prepare and issue an approved ESQ assessment report averaged between 26 and 28 days.

ORP implemented an enhanced component for issues management in April 2007, called the Manager's Top Ten Issues and Deliverables Report. This report was prepared on a weekly basis for senior management review of the ORP top issues and deliverables. All data in the report came from the CARS database. The Manager and Deputy Manager selected CARS issues and deliverables for the Top Ten list. Issues and deliverables were color coded to identify: "Complete," "On Schedule," "At Risk," and "Forecasted Delay."

The ORP Manager and direct reports reviewed the Manager's Top Ten Issues and Deliverables Report each Monday morning to discuss progress, required support, recovery plans, forecasted delivery, and issues. The assessors found this issues management process effective, timely, and focused on the key project initiatives.

### **Conclusions**

The assessment team concluded the following:

- Except for FRs and Construction Inspectors, ORP organizations followed a single procedure. This procedure appropriately required verifying corrective actions before closing issues and verifying corrective action effectiveness for significant issues.
- Assistant Manager (AM) for the Waste Treatment and Immobilization Plant (WTP), AM Tank Farms Project (TF), and ESQ all had appropriate additional directives amplifying the requirement to verify the effectiveness of completed corrective actions.
- FRs and Construction Inspectors had additional procedures requiring them to review objective evidence of Finding and concern corrective actions before closure.
- ORP assessments looked for and sometimes found situations where corrective actions were ineffective.
- The ORP CARS is a viable corrective action management system which provides real-time progress and is easily accessible to management and staff.
- All organizations did not enter assessment activity into the OA database and all Findings and concerns into CARS. A pending revision to ORP M 220.1 would, if approved, explicitly require all organizations to use both systems consistently.
- The assessment team identified one ESQ desk instruction required updating for consistency with other directives.

- The ORP Manager's Top Ten Issues and Deliverables Report provided an effective and timely method for identifying issues in CARS to senior ORP managers.
- ORP needs to improve the amount of time it takes to prepare and issue an approved assessment report. ORP assessment reports were sometimes not timely in that excessive time elapsed between the completion of fieldwork and issuance of the report. ORP should improve in this area, because late reporting degrades the effectiveness of assessments. ESQ developed a metric to track performance in this area, but it was used informally and was not applied to other organizations performing assessments. ORP should formalize the metric and apply it to all ORP organizations performing assessments.

### **3.4.2 Office of Health, Safety, and Security Corrective Action Tracking System**

The DOE Corrective Action Management Program (CAMP) User Guide ([http://www.hss.energy.gov/CSA/CSP/CAMP/cats\\_usersguide\\_v40.pdf](http://www.hss.energy.gov/CSA/CSP/CAMP/cats_usersguide_v40.pdf)) prescribes process requirements and responsibilities for DOE line managers to develop and implement corrective actions into HSS CATS to effectively resolve safety Findings arising from:

- Findings as identified by HSS assessments
- Judgments of Need as identified by Type A accident investigations
- Other sources as directed by the Secretary or Deputy Secretary, including crosscutting safety Findings.

As required by DOE O 414.1C, the field element manager, in consultation with the appropriate Secretarial Officer, must prepare a comprehensive corrective action plan in writing to address assessment Findings and corrective actions for each Finding. Guidance for implementing these requirements is outlined in Volume 2, Appendix G, of DOE G 450.4-1B, "Integrated Safety Management System Guide," dated March 1, 2001.

During the last three years, ORP submitted 18 Findings and 129 corrective actions for tracking in CATS. The 18 Findings and 129 corrective actions were the result of an OA, (now HSS) investigation of selected aspects of worker safety and health systems at the DOE Hanford Site from February through April 2004, "Investigation of Worker Vapor Exposure and Occupational Medicine Program Allegations at the Hanford Site." Of the 129 corrective actions, 101 were assigned to the TF contractor, CH2M HILL Hanford Group, Inc. (CH2M HILL). CH2M HILL claimed completion of their 101 corrective actions as of April 2005. On April 13, 2006, all of the 129 corrective actions were reported complete in CATS, and the CATS Corrective Action Plan (CAP) was closed. The 18 Findings and 129 corrective actions represent the total ORP population of items reported in CATS since 2004. There were no other ORP corrective actions requiring tracking in CATS.

ORP conducted an effectiveness assessment of the CH2M HILL corrective actions from April 25, 2005, through April 29, 2005. ORP sampled 57 of the 101 CH2M HILL corrective

actions and verified adequate closure for all items reviewed. That assessment identified no Findings and noted significant improvement in the industrial hygiene program from the previous review. The ORP assessment report is available at the following location:

<http://www.hanford.gov/orp/uploadfiles/A-05-ESQ-TANKFARM-007.pdf>

### **Conclusions**

- All ORP CATS corrective action plans were closed and found to be effectively implemented through formal assessment.

### **3.4.3 Work Control Corrective Actions**

The assessors reviewed all assessments of contractor work control conducted over the past two years for evidence that corrective action management processes are effective in preventing recurrence of problems. The assessment team defined work control broadly as those processes that result in well documented, correctly performed work. Therefore, work control included such activities as design, supplier control, inspection, and control of documents and records.

### **Assessment Observations**

The assessment team reviewed eight ORP assessments of CH2M HILL work control and 13 ORP assessments of Bechtel National, Inc. (BNI) work control.

**CH2M HILL** – ORP assessments of CH2M HILL identified 18 Findings, three of which identified issues with the corrective action management system. An assessment of fire protection in November 2005 and an assessment of hoisting and rigging in March 2006 identified similar weaknesses in program implementation. This suggested ineffective corrective actions for the fire protection assessment. However, following resolution of the hoisting and rigging assessment issues, later assessments did not identify similar issues.

Evaluations of CH2M HILL by the AM TF, including appraisals by FRs, have reflected satisfaction with CH2M HILL's corrective action management program. CH2M HILL's corrective action management program was implemented through their "Problem Evaluation Request" (PER) process. This provided a "zero-threshold" system for reporting problems (or asking questions) at the Tank Farms. Once documented, issues were screened for safety, regulatory, and other reporting requirements and were then routed to the correct authority for resolution. The process provided for trending and closure, including provisions for verifying the effectiveness of completed corrective actions.

**BNI** – The assessors reviewed 13 assessments of BNI work control. These assessments identified 34 Findings.

At the beginning of the two-year review period of this assessment, ORP had concluded that there were significant weaknesses in BNI's corrective action process as well as in other quality

assurance processes. This conclusion was based on the repetitive occurrence of Price-Anderson Amendments Act (PAAA) quality assurance regulatory noncompliances that indicated a breakdown in the BNI quality assurance program. Evidence of a breakdown included the appearance of an inability of the corrective action management process to prevent recurrence of problems. ORP then conducted a comprehensive assessment of the quality issues and found that problems recurred because BNI had not implemented a nuclear safety culture that would include:

- Discipline in procedure compliance
- Effective training
- Adequate procedures
- A questioning attitude

During the same period, a PAAA enforcement action highlighted many of these issues. In response, BNI initiated a program to promote a nuclear safety culture that they called the Nuclear Safety Quality Initiative (NSQI). At the time of the current assessment fieldwork, implementation of the NSQI was incomplete; however, several initiatives were well underway, including initiation of the Project Issues Evaluation Report (PIER) corrective action and issues management process. BNI created the PIER process at the encouragement of ORP, and modeled it after the CH2M HILL PER process.

The PIER process complemented the existing Corrective Action Report (CAR) process, because the CAR process had not provided an adequate method for comprehensively reporting and obtaining resolution to issues by itself. This occurred, in part, because the CAR system was only used to report what personnel believed were quality assurance issues above a perceived level of significance. Issues not perceived to be quality assurance-related or which were not believed to be sufficiently significant were not reported. Using the PIER process, all issues were to be reported, and BNI anticipated there would be more discipline in identification of issues reportable into the CAR system.

At the time of this assessment fieldwork, ESQ had just completed a formal field assessment (A-07-ESQ-RPPWTP-013) to determine the effectiveness of the BNI corrective action program with the PIER process. The draft report stated the assessors found the BNI system was effectively implementing a corrective action management program that met the requirements of the quality assurance rule, the DOE Quality Assurance Order, and the BNI Quality Assurance Manual. However, the assessment team identified some deficiencies, primarily regarding inadequate implementation of procedures. The specific deficiencies are as follows:

- Deficiencies noted with processing some PIERs
- Deficiencies noted with processing Deficiency Reports and CARs
- Deficiencies noted with processing Commercial Material

- Deficiencies noted with processing potential adverse trends
- Deficiencies noted with processing corrective actions from assessments
- The BNI Quality Assurance Manual does not adequately describe the scope of the BNI CAMP

BNI's CAR procedure required they classify CARs based on their significance to determine if corrective action effectiveness verification was required. If the classification was such that effectiveness verification was required, the CAR could not be closed until effectiveness had been verified.

### Conclusions

- **CH2M HILL** – This contractor had a mature corrective action management process. The PER system promptly identified issues, screened them for significance, identified causes, identified corrective actions, and required objective evidence for closure. The system provided for revisiting significant issues after closure to verify effectiveness of corrective actions. The few situations identified in this review that could indicate ineffective corrective actions occurred more than 18 months ago and were minor in nature.
- **BNI** – Per the June 2007 ORP assessment, BNI has corrected some of its long-standing problems with corrective action and issues management. At the time of this management assessment fieldwork, ORP conducted an assessment to verify the effectiveness of the new PIER process. Overall, the ORP assessors found the BNI corrective action management system meets DOE requirements. However, some deficiencies remain for BNI to resolve.
- **ORP** – ORP assessment personnel looked for evidence of ineffective corrective actions when conducting assessments. This was demonstrated by the fact that ORP assessors identified ineffective corrective actions in the evaluated assessments. Also, when ORP management recognized recurring quality assurance issues in BNI work, they initiated a major assessment of BNI to determine why corrective actions were ineffective.

#### 3.4.4 Quality Assurance Program Oversight and Corrective Action Effectiveness

The assessment team reviewed five assessments of contractor quality assurance programs and interviewed persons responsible for contractor quality assurance program oversight. The team evaluated oversight of contractor quality assurance programs and drew conclusions regarding how issues arising from program oversight were closed and corrective action effectiveness verified.

### Assessment Observations

The assessment team reviewed all of the assessments performed over the past two years and identified five that explicitly addressed contractor quality assurance programs. Two addressed specific areas of the CH2M HILL quality assurance program, and three addressed the BNI quality assurance program. In the case of BNI, one assessment specifically addressed the entire quality assurance program, while assessments of CH2M HILL explicitly addressed only the assessment, document control, and records management programs.

In the two-year period, ORP issued 21 reports of independent assessments of contractor activities. While five assessments explicitly addressed quality assurance programs or quality assurance program components, most of the remaining assessments addressed implementation of quality assurance programs. Therefore, Findings identified in the other assessments cited noncompliances with the contractors' quality assurance programs as their bases.

Both the AM TF and AM WTP maintained staffs of qualified FRs and the AM WTP maintained a staff of qualified Construction Inspectors. These individuals were in the field on a daily basis and were trained in both DOE and contractor quality assurance program requirements. Their familiarity with these requirements was evident from the fact that they routinely cited contractors for noncompliances with quality assurance program requirements. As with other issues, FRs and Construction Inspectors closed issue after verifying evidence of completion of corrective actions. During subsequent assessments, FRs followed their procedures to look for evidence of corrective action effectiveness.

**Oversight Issues at the WTP** – During early 2007, ORP concluded it did not conduct adequate oversight of the WTP quality assurance program. Specifically, the ESQ organization had focused on safety equipment and had not performed enough assessments of equipment with defense-in-depth nuclear safety functions and other non-safety equipment. As a result, ESQ added three additional assessment contract support staff and began hiring three additional Federal employee quality assurance engineers. At the time of the assessment fieldwork, ORP had revised its assessment schedule to use the additional resources and was conducting a more aggressive quality assurance assessment program.

**Approvals of Contractor Quality Assurance Programs (QAP)** – At the time of the assessment fieldwork, ORP was reviewing the annual updates of the CH2M HILL and Advanced Laboratories and Technologies, Inc. QAP documents, and was reviewing for approval an entirely new BNI QAP. Recent QAPs had primarily repeated requirements from 10 Code of Federal Regulations 830.122 (QA Rule), DOE O 414.1C, "Quality Assurance," and NQA-1, "Quality Assurance Requirements for Nuclear Facilities," but ORP had re-evaluated the acceptability of this approach. The QA Rule required that QAPs describe quality assurance programs, and ORP no longer accepted that requirements be simply repeated without an accompanying description.

## Conclusions

- ORP assessments generally addressed contractor quality programs. Some assessments addressed them directly, while other assessments evaluated field activities affecting quality in the context of the contractors' quality assurance requirements. As with other assessments, ORP procedures required corrective actions be verified prior to closure and that effectiveness of corrective actions be subsequently verified.
- To remedy weaknesses in ESQ oversight of contractor QAPs, ORP appropriately added both contract and Federal employee resources to ESQ and ESQ was conducting a more aggressive assessment program.
- AM WTP and AM TF conducted continuous assessments of implementation of contractor QAPs.

### 3.4.5 WTP Design Oversight Effectiveness

In January 2007, ORP conducted an internal management review of its assessment program to verify the WTP Design Oversight Program complied with the implementing documents, ORP M 220.1, "Integrated Assessment Program," Revision 4, and ORP DI 220.1, "Conduct of Design Assessment," Revision 1. Additionally, the assessment reviewed the implementation of the WTP Engineering Division (WED) oversight process for identifying, transmitting, tracking, and closing issues, both for the WTP contractor and internal to DOE ORP. The team reviewed design oversight reports issued from August 25, 2006, to January 2007. The assessment addressed the following:

- Compliance of the ORP WED design oversight program to ORP M 220.1 and ORP DI 220.1.
- Verification that follow-up items were identified and transmitted to the contractor, requesting a response.
- Effectiveness of the WED program for tracking assessment issues and acceptability of contractor corrective actions, and the closure documentation of these corrective actions.
- Placement of assessment issues identified for ORP action in CARS.

**Program Compliance** – The January 2007 assessment found that implementation of the WED design oversight program was generally in compliance with the governing instructions, particularly relative to planning, performing, and transmitting assessment results to both ORP and the contractor. However, the assessment identified the following issues:

- One completed oversight assessment was not transmitted to the contractor.
- Program implementation was not in compliance with governing instructions relative to entry of follow-up items into CARS and closure of those items in CARS.



- Four WED personnel who led oversight assessments were not fully qualified for that task.
- Division management performance expectations for oversight assessments were not always met, including constructing and maintaining “closure books” current and complete.
- Management had not broadly communicated many of these expectations nor documented them in the governing instructions.

**Tracking of Assessment Follow-up Items** – Weakness in ownership of WED assessments by assigned WED lead engineers contributed to problems with assuring complete information in the CARS database.

**Timeliness and Adequacy of Follow-up Item Closure** – Lead assessors were not always timely in evaluating and documenting the adequacy of contractor responses to follow-up items in their oversight assessments. In addition, division management did not emphasize to the lead engineers the importance of timely review of outstanding actions from oversight assessments.

A prior management assessment performed in July 2006 also identified problems with WED’s implementation of tracking and closure via CARS. Although WED management provided staff with training and completed closure packages on the issues, corrective action effectiveness did not persist, as evidenced by recurrence of these problems during the January 2007 assessment.

WED was updating DI 220.1, “Conduct of Design oversight,” to comply with the updated ORP M 220.1 which was in concurrence. The updated WED 220.1 placed more focus and emphasis on Finding closure documentation and tracking in CARS. WED would train staff on the new M 220.1 and DI 220.1 expectations.

**Conclusion:**

- The January 2007 management assessment identified weaknesses in WED’s corrective action and issues management processes. Management is taking actions that can be expected to correct the problems.

**3.4.6 Cyber Security, Safeguards & Security, and Emergency Management**

A Memorandum of Understanding (MOU) with the DOE Richland Operations Office (RL) assigned responsibility for execution of Cyber Security, Safeguards & Security, and Emergency Management oversight activities for ORP and other Hanford Site activities. The MOU required ORP to provide contractor coordination and other support to RL. Key areas of RL oversight responsibility included:

- Groundwater and vadose zone remediation
- National Environmental Policy Act compliance management

- Hanford Federal Facility Agreement and Consent Order coordination
- Cyber security
- Emergency management
- Safeguards and security
- Employee concerns program support
- Human resource management
- Training
- Packaging and transportation.

The attached RL assessment, completed June 12, 2007, addressed Hanford corrective action management for cyber security, safeguards and security and emergency management. In summary, the RL report concluded:

- HSS recently completed an inspection of the RL Security and Emergency Services Division (SES) program including cyber security. The inspection team was unable to penetrate the Hanford Local Area Network (from either side of the firewall); and the cyber security portion of the draft report identified only six minor Findings. All SES sections of the report indicated effective performance (green).
- Safeguards and Security (S&S) corrective action plans CAPs are required for all Findings (a Finding is a non-compliance with DOE directives) resulting from S&S surveys and self-assessments.
- Closure of the S&S Finding requires submitting a locally designed closure form that includes the Finding, narrative description of actions taken to close the Finding, certification by the closing organization that those actions are completed, and validation of closure by cognizant RL S&S staff.
- A recent independent oversight inspection of Hanford safeguards and security stated that management feedback and improvement mechanisms in use at the Hanford Site are among the most well integrated and well implemented that have been encountered by Independent Oversight (Draft Report Volume I, dated April 26, 2007).

#### 4.0 Results and Conclusion

The assessment did not identify any Findings, but made the following Observations:

- **Observation A-07-ESQ-ORP-002-O01** – ESQ should revise their DI ORP DI 1.3 “Assessment Finding Closure Process” for consistency with the latest revision to ORP M 220.1, “Integrated Assessment Program.”

##### **Discussion:**

AM ESQ DI ORP DI 1.3 was issued April 30, 2004, and has never been revised. This procedure specified key management expectations regarding how assessment issues were to be verified and closed, but it was not consistent with the current revision of ORP M 220.1. DIs may provide additional management direction on activities, but they must still be consistent with the higher level directives. ORP DI 1.3 did not, for example, address acceptance of contractor responses as specified in ORP M 220.1.

- **Observation A-07-ESQ-ORP-002-O02** – ORP management should develop a metric showing timeliness of issue closures. The ORP Top Ten Issues Management reporting tracks issue closure timeliness, but this should be expanded to other areas such as Findings.
- **Observation A-07-ESQ-ORP-002-O03** – ORP should institutionalize the existing metric measuring timeliness of assessment report development and issuance.

##### **Discussion:**

ORP assessment reports were sometimes not timely in that excessive time elapsed between the completion of fieldwork and issuance of the report. ORP should improve in this area, because late reporting degrades the effectiveness of assessments. ESQ developed a metric to track performance in this area, but it was used informally and was not applied to other organizations performing assessments.

ORP should formalize the metric and apply it to all ORP organizations performing assessments.

##### **Conclusion:**

ORP procedures require assessment personnel to verify corrective actions and close issues in CARS promptly following contractor notification that corrective actions are complete. If this does not occur, there is a risk that ineffective or incomplete corrective actions will go undetected. However, there were no trend reports or other metrics available to management that would, for example, inform the ORP Assessment Program Committee (APC) that corrective actions were unverified. Ideally, a trend report could be developed from data in CARS, but not all organizations within ORP reported the necessary information into CARS. The assessment team

suggests ORP procedures are revised to require uniform entry of the necessary information into CARS, with appropriate metrics developed and used by the APC.

**4.1 Path Forward**

Consequently, the following action plan is provided:

Observation Number	Action	Assignee	Due Date
Observation A-07-ESQ-ORP-002-001	Approve the ORP M 220.1 Revision 5 procedure and distribute	B. Taylor	8/31/07
Observation A-07-ESQ-ORP-002-001	Train ORP staff to the requirements and expectations of ORP M 220.1 Revision 5	P. Carier	9/30/07
Observation A-07-ESQ-ORP-002-001	Update WED DI 220.1 to reflect ORP M 220.1 Revision 5 requirements and expectations	B. Griffith	8/31/07
Observation A-07-ESQ-ORP-002-002 and 003	Develop a CARS trend report which shows duration for closed findings and actions. Institutionalize this reporting for all ORP organizations and provide to management on a monthly basis.	P. Carier	10/15/07

**5.0 References**

1. ORP M 411.1-1, Revision 5, Safety Management Functions, Responsibilities, and Authorities Manual for the U.S. Department of Energy, Office of River Protection.
2. ORP M 450.4, Revision 2, Integrated Safety Management System Description.
3. DOE O 413.3A, Change 1, Program and Project Management for the Acquisition of Capital Assets.
4. DOE O 414.1C, *Quality Assurance*, Attachment 4, Corrective Action Management Program.
5. ORP M 414.1C, *Quality Assurance Program Description*.
6. ORP M 226, *Assurance System Description*.
7. ORP M 220.1, Revision 4
8. ORP M 220.1, Revision 5 (in concurrence)

9. "WTP WED Independent Assessment Design Oversight Report – Management Self-Assessment Design Oversight Report," February 26, 2007, from L.F. Miller to J. R. Eschenberg, 07-WTP-040.
10. "U.S. Department of Energy, Richland Operations Office (RL) Corrective Action Management Expectations and Actions," June 12, 2007, M. J. Weis to I. R. Triay, 07-OOD-0102.
11. HSS CATS User Guide,  
[http://www.hss.energy.gov/CSA/CSP/CAMP/cats\\_usersguide\\_v40.pdf](http://www.hss.energy.gov/CSA/CSP/CAMP/cats_usersguide_v40.pdf)