Department of Energy

memorandum

Office of River Protection

DATE:

REPLY TO ATTN OF:

ESQ:SAV 04-ESQ-064

SUBJECT: VERIFICATION REVIEW OF NON-CONFORMING HUNT VALVES

To: Ines R. Triay
Deputy Chief Operating Officer
Office of Assistant Secretary
for Environmental Management, EM-3, HQ

References: 1. HQ memorandum from F. B. Russo to DOE-HQ Distribution, "Verification That Non-Conforming Valves Have Been Addressed Through the DOE Suspect/Counterfeit Item Process," dated July 7, 2004.

2. DOE-HQ memorandum from I. R. Triay to Distribution, "Verification Review That Non-Conforming Valves Have Been Addressed," dated July 20, 2004.

This memorandum forwards the results of the U.S. Department of Energy (DOE), Office of River Protection (ORP) review requested by Reference 1 and passed on to the DOE sites in Reference 2. In the references, ORP was requested to verify the effective implementation of the Contractor's Suspect/Counterfeit Item (S/CI) processes. ORP used the lines of inquiry provided in Reference 1 and focused on information posted on the DOE S/CI webpage addressing certification issues with valves provided by the Hunt Valve Company, Inc. Reference 2 directed the addressees to review actions taken:

- 1. To determine whether Hunt Valves were used at DOE sites;
- 2. To determine if appropriate actions were taken for instances where non-conforming valves were identified ...; and
- 3. To determine if the existing site processes provide a high degree of assurance that non-conforming valves are not inadvertently introduced at the site.

The ORP review found both ORP contractors had initiated evaluations of the recently posted S/CI issue with Hunt Valve Company, Inc., and determined Hunt valves had not been used at the Waste Treatment and Immobilization Plant or the Hanford Tank Farms. The ORP review identified areas for improvement with each of the Contractor's S/CI programs. Both contractors have initiated procedure changes to incorporate these identified improvements. Notwithstanding, our review also concluded that each Contractor's program, with the current S/CI processes in

place, provides a high degree of assurance that these non-conforming Hunt valves will not be inadvertently introduced at the site. Attached are the assessment reports with the evaluations for Bechtel National, Inc. (Attachment 1) and CH2M HILL Hanford Group, Inc. (Attachment 2).

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

Roy J. Schepens Manager

Attachments: (2)

U.S. DEPARTMENT OF ENERGY Office of River Protection

INSPECTION: BNI Suspect/Counterfeit Items Effectiveness

REPORT NO: A-04-ESQ-RPP-WTP-010

FACILITY: Bechtel National, Inc.

LOCATION: 2430 Bldg. Stevens Center Place

DATES: July 21-22, 2004

Assessment Team: Sam Vega, Assessment Team Leader/Assessor

APPROVED BY: P. Carier, Verification and Confirmation Official,

Environmental Safety & Quality Division

Executive Summary

Introduction

During the period of July 21-22, 2004, the U.S. Department of Energy (DOE), Office of River Protection (ORP) conducted an assessment of the Bechtel National, Inc. (BNI) Suspect/Counterfeit Item (S/CI) Program. ORP initiated this assessment as a result of a memorandum dated July 7, 2004, from the Deputy Assistant Secretary, Corporate Performance Assessment, Office of Environment, Safety and Health, which directed ORP to perform a review to verify the effective implementation of the Contractor's S/CI process. The assessment focused on reports posted on the DOE S/CI webpage addressing certification issues with valves provided by the Hunt Valve Company, Inc., and on the activities applied to verify that the non-conforming valves had not been used.

Significant Issues and Conclusions

The assessment found the BNI S/CI Program still maturing with corrective actions still in progress from a previous DOE assessment, which found several deficiencies with the program. As a result, overall program effectiveness could not be fully assessed until after the completion of corrective actions (August 31, 2004). The assessment was able to determine that BNI was effective in identifying and disseminating the recent Hunt Valve information from the DOE S/CI website, and that initial investigative results found BNI had not purchased any valves from the Hunt Valve Company, Inc., or any of its distributors. Process changes already implemented heightened the awareness of the S/CI program and provide reasonable assurance that non-conforming Hunt valves will not be inadvertently introduced into the site inventory. The assessment resulted in no Findings and one opportunity for improvement, which BNI has committed to incorporate into its S/CI procedure.

Suspect/Counterfeit Items Program

The assessment found the BNI S/CI program still maturing. The current program was put in place October 2003. Prior to this, while BNI did not have a specific S/CI procedure patterned after DOE G 440.1-6, "Implementation Guide for Use with Suspect/Counterfeit Items Requirements of DOE O 440.1, Worker Protection Management; 10 CFR 830.120; and DOE 5700.6C, Quality Assurance," elements of the S/CI program were in place and being effectively implemented. BNI relied on the Occurrence Reporting and the process for controlling nonconforming items to control S/CIs. The first assessment of BNI's current program was conducted in April 2004. At that time, several weaknesses were identified with the program that the Contractor was still correcting at the time of this assessment. A full determination of program effectiveness will be possible after August 31, 2004, when all the corrective actions will be implemented. The assessment resulted in no additional Findings and one opportunity for improvement. The improvement was related to Procedure 24590-WTP-GPP-MGT-012, "Control of Suspect/Counterfeit Items," which lacked sufficient direction to recipients of S/CI

information as to the expectation for reviewing, documenting the reviews, and processing identified S/CI problems. BNI committed to incorporate procedure changes to address this as part of procedure changes planned for the end of July 2004.

The Hunt Valve Company, Inc. Issue

The assessment found BNI did not have documentation of actions performed to assess the original August 2003 Hunt Valve Company issue. Due to recently implemented corrective actions, there was evidence BNI was aware of the more recent information on the Hunt Valve Company posted on the DOE Website. The assessment was able to verify this information had been disseminated within BNI with a request to evaluate. The electronically maintained list of S/CI (used by procurement and receipt inspection personnel) also was updated to include valves provided by Hunt Valve Company, Inc. or its distributors. At the time of this assessment, BNI had not yet completed its investigative activities, but the assessment team determined the process was progressing in a timely manner. Preliminary reviews of electronically maintained approved supplier lists and procurement items lists found BNI had not purchased any of the non-compliant valves. The assessment determined BNI was effective in identifying and disseminating this information.

Bechtel National, Inc. Suspect/Counterfeit Items (S/CI) Effectiveness Assessment

Assessment Purpose and Scope

During the period of July 19 - 20, 2004, the U.S. Department of Energy (DOE), Office of River Protection (ORP) conducted an assessment of the Bechtel National, Inc. (BNI) S/CI Program. ORP initiated this assessment as a result of a memorandum, dated July 7, 2004, from the Deputy Assistant Secretary, Corporate Performance Assessment, Office of Environment, Safety and Health which directed ORP to perform a review to verify the effective implementation of the Contractor's S/CI processes. The assessment focused on reports posted on the DOE S/CI webpage addressing certification issues with valves provided by the Hunt Valve Company, Inc. Due to the safety significance of these non-conforming valves, the Deputy Secretary requested the ORP use the Hunt non-conforming valves issue as an opportunity to verify that:

- S/CI processes are effectively implemented; and
- These Hunt non-conforming valves were not used at the Hanford Site.

The assessment used the Hunt valve example to walk through the contractor's implementation of their S/CI processes to determine whether:

- The contractor had determined whether or not Hunt non-conforming valves were in use or exist within the contractor's inventory;
- Appropriate actions were taken to document, control, and report the non-conforming valves (if any were identified); and
- Existing processes provide a high degree of assurance that non-conforming valves will not be inadvertently reintroduced into the site inventory.

The assessment used the lines of inquiry provided with the July 7, 2004, memorandum to conduct this assessment.

Overall Conclusions

The assessment found the BNI S/CI program still maturing. The current program was put in place October 2003. Prior to this, while BNI did not have a specific S/CI procedure patterned after DOE G 440.1-6, "Implementation Guide for use with Suspect/Counterfeit Items Requirements of DOE O 440.1, Worker Protection Management; 10 CFR 830.120; and DOE 5700.6C, Quality Assurance," elements of the S/CI program were in place and being implemented effectively. BNI relied on the Occurrence Reporting and the process for

controlling nonconforming items to control S/CI. The first assessment of BNI's current program was conducted in April 2004. At that time, several weaknesses were identified with the program that the Contractor was still correcting at the time of this assessment. As a result, overall program effectiveness could not be fully assessed until after the completion of corrective actions (August 31, 2004). The assessment was able to determine that BNI was effectively identified and disseminated the recent Hunt Valve information from the DOE S/CI website, and that initial investigative results found BNI had not purchased valves from the Hunt Valve Company, Inc., or any of its distributors. Process changes already implemented heightened the awareness of the S/CI program and responsibilities noted during the assessment provide assurance that non-conforming Hunt valves will not be inadvertently introduced into the site inventory. The assessment resulted in no Findings and one opportunity for improvement which BNI has committed to incorporate into the S/CI process:

Improvement Opportunity 1: BNI procedure 24590-WTP-GPP-MGT-012, "Control of Suspect/Counterfeit Items," lacked sufficient direction to recipients of S/CI information as to the expectation for reviewing, documenting the reviews, and processing identified S/CI problems. (Addresses lines of inquiry PART 1, No. 6)

Suspect/Counterfeit Items Program (Addresses lines of inquiry, Part 1)

A recent DOE assessment identified several weaknesses with the program that were still in the process of being corrected by the Contractor. The assessment did not revisit program areas already assessed where deficiencies had been identified. With open corrective actions, a full determination of program effectiveness was not possible. Deficiencies identified in previous assessment included (see BNI Corrective Action Reports 24590-WTP-CAR-QA-04-066 and 24590-WTP-RITS-QAIS-04-496):

- Lack of mechanisms in place to sufficiently update the information on S/CI and associated suppliers to assure the information was maintained current;
- BNI Procedures did not require the inspection of construction safety equipment and permanent plant items for S/CIs;
- Management systems did not sufficiently apply controls to prevent the introduction and use of S/CI through design, procurement, and inspection/maintenance; and
- Lack of awareness of BNI S/CI process and the electronic BNI S/CI list by those responsible for S/CI activities.

The assessor interviewed BNI personnel from Quality Assurance (QA), Acquisition Services, Supplier Quality (receipt inspection), and Engineering, to assess the effectiveness of disseminating and evaluating S/CI information. The assessor also reviewed the actions taken by each interviewed organization to assess what was done with past information provided. The assessor found the S/CI procedure required information of identified S/CIs to be distributed for review. However, the procedure did not provide direction as to the expectation for reviewing the

S/CI information, for documenting the reviews, or processing any identified deficiencies. The procedure left it to the recipient organizations to determine what activities and controls were necessary. The assessor found recipients of S/CI information understood their responsibility to review received S/CI information for impact, but the results of these reviews were found to vary from well planned and well documented investigations to just verbal acknowledgment that the issue was reviewed. The assessor identified this to BNI as an improvement opportunity (see Improvement opportunity 1). BNI has committed to add reviewer expectations along with already planned procedure changes for the end of July 2004. (Addresses lines of inquiry PART 1, No. 1)

The assessor reviewed the draft Revision 2 to procedure 24590-WTP-GPP-MGT-012, "Control of Suspect/Counterfeit Items" to verify planned changes were appropriate. The assessor also reviewed procurement procedures, receipt inspection procedures, and the procedure for processing non-conforming items to verify these procedures were adequate in addressing S/CI requirements. The assessor interviewed BNI personnel from QA, Acquisition Services, Supplier Quality (receipt inspection), and Engineering to verify process requirements were understood and would be followed in the event S/CIs (such as Hunt Valves) were identified. The assessor determined awareness of process procedures was adequate and no new issues were identified. (Addresses lines of inquiry PART 1, No. 3)

The assessor verified BNI had identified a management position responsible for S/CI activities that would serve as the point-of-contact to interface with the DOE and the Office of Inspector General. For BNI, the QA Program Manager has this responsibility, and within the QA Program Manager's organization there was a designated S/CI Coordinator. (Addresses lines of inquiry PART 1, No. 2)

At the time of this assessment, BNI was implementing corrective actions for issue with a lack of awareness of S/CI requirements. BNI was in the process of including required S/CI training for applicable personnel in their individual training profiles. This corrective action was not yet completed. The assessor reviewed a training forecast printout which identified around 100 individuals had recently been tasked to read the S/CI procedure. With this, the assessor verified progress in efforts to increase awareness of S/CI requirement. In addition, BNI tasked personnel to attend the DOE provided S/CI training course in May 2004. The assessor reviewed the training rosters to verify contractor attendance was appropriate. The assessor found attendees performed activities such as QA oversight, maintenance, procurement, Quality Control, and receiving inspection. No additional issues were identified. The assessor also verified the training requirements in 24590-WTP-GPP-MGT-012, "Control of Suspect/Counterfeit Items" were adequate. (Addresses lines of inquiry PART 1, No. 5)

Conclusion

The current S/CIprogram was put in place October 2003. The first assessment of BNI's current program was conducted in April 2004. At that time, several weaknesses were identified with the program that the Contractor was still correcting. The assessment determined the awareness of BNI personnel of the S/CI program and their related responsibilities had increased and was

adequate. The assessor also verified that the planned changes to the S/CI procedure 24590-WTP-GPP-MGT-012, "Control of Suspect/Counterfeit Items" were adequate and would further strengthen the program in providing assurance that S/CIs will not be inadvertently introduced into the site inventory. The assessment resulted in no additional Findings. One opportunity for improvement was identified where procedure 24590-WTP-GPP-MGT-012, "Control of Suspect/Counterfeit Items," lacked sufficient direction to recipients of S/CI information as to the expectation for reviewing, documenting the reviews, and processing identified S/CI problems. BNI has committed to incorporate procedure changes to address this as part of procedure changes planned for the end of July 2004.

The Hunt Valve Company, Inc. (Addresses lines of inquiry for PART 2 and #4 of PART 1)

The assessor verified documentation existed indicating the Contractor S/CI process had already identified the Hunt Valve Company, Inc. notices as a potential issue and had initiated an investigation to determine impact. The contractor used e-mails which were distributed to targeted organizations requesting an investigation be performed. The assessor also reviewed printouts of the initial queries of the Waste Treatment and Immobilization Plant (WTP) Supplier E-Database performed by the S/CI Coordinator. These showed there were no services ever procured or valves purchased from Hunt Valve or any of it distributors. At the time of this assessment, the BNI investigation was not yet complete, nor had BNI determined if it was necessary to query its sub-contractors. The assessor determined progress had been timely since the Hunt Valve information was recently posted in the DOE website and the BNI review of the site was bi-monthly. (Addresses lines of inquiry PART 1, No. 4 and PART 2, No. 1 and No. 3)

The assessor determined through interviews the original August 2003 Hunt Valve issue with 1-inch valves for UF6 cylinders was looked at and the result was no Hunt Valves of that type were used by the WTP, but BNI could not produce any documentation to support that statement.

The assessor determined through interviews that BNI relied on the procurement, supplier qualification, and the receipt inspection processes to assure S/CI (in this case, Hunt Valves) were not introduced into the site. S/CI information was posted on the BNI website and used when performing these activities. The assessor verified this by interviewing BNI personnel from QA, Acquisition Services, and Supplier Quality (receipt inspection) and by reviewing the process procedures for supplier qualification and receiving inspection and confirmed they adequately addressed S/CI requirements. No issues were identified. (Addresses lines of inquiry PART 2, No. 5)

Conclusion

BNI was effective in identifying and disseminating the recent Hunt Valve information posted on the DOE S/CI website. Initial investigative results found BNI had not purchased valves from the Hunt Valve Company, Inc. or its distributors. Even though investigative activities had not yet progressed to making a final determination, the assessor concluded the actions performed were timely and there was enough awareness of the S/CI process and responsibilities to provide reasonable assurance BNI would adequately address this issue in a timely manner.

List of Open Assessment Items

A-04-ESQ-RPP-WTP-010-I01

Improvement Opportunity

Procedure 24590-WTP-GPP-MGT-012, "Control of Suspect/Counterfeit Items," lacked sufficient direction to recipients of S/CI information as to the expectation for reviewing, documenting the reviews, and processing identified S/CI problems.

Individuals Interviewed

- Supplier Quality Manager;
- Program Engineer;
- Suspect/Counterfeit Items Program Coordinator;
- QA Program Manager; and
- QA Manager.

Documents Reviewed

Supplier Evaluation Checklist: "Bechtel National, Inc. (BNI) Waste Treatement Plant Project (WTP) Supplier Capability Survey"

Data Printout, "WTP Supplier E-Data Search by Item/Service-Search: Valves," July 15, 2004

24590-WTP-RITS-QAIS-04-496, "Review for Inclusion of S/CI Procedure on Employee Profile," April 20, 2004

04-WTP-070, "Contract No. DE-AC27-01RV14136-Inspection Report A-04-AMWTP-RPPWTP-001 – On-Location Inspection Report for the Period January 9, 2004, through April 15, 2004," April 20, 2004

Surveillance Report 24590-WTP-WTP-SV-QA-04-229, "Review of SWGR 91001b's Fasteners for Suspect/Counterfeit items," June 16, 2004

Supplier Quality Alert #04-002, "Potentially Fraudulent Test Data for Stainless Steel Stock," March 8, 2004

Corrective Action Report 24590-WTP-CAR-QA-04-066, "Process for Handling S/CI Alerts and Notices (A-04-AMWTP-RPPWTP-001-F01a)," May 2, 2004

CCN 086051, "Contract No. DE-AC27-01RV14136- Response to Assessment Report A-04-AMWTP-RPPWTP-001," June 25, 2004

WTP Training Forecast Report, "24590-WTP-GPP-MGT-012, Control of Suspect/Counterfeit Items" (indicating all those required to read procedure as part of training profile)

Procurement Claus SC-18, "Suspect/Counterfeit Items"

Procedures Reviewed: (Addresses lines of inquiry PART 1, no.1)

24590-WTP-GPP-MGT-012, "Control of Suspect/Counterfeit Items," Revision 1, 12/30/03 24590-WTP-GPP-MGT-012, "Control of Suspect/Counterfeit Items," Revision 2, DRAFT 24590-WTP-GPP-CON-7110, "Material Receiving Instructions," Revision 1, 12/26/03 24590-WTP-QAM-QA-01-001, "Quality Assurance Manual," Revision 5, 7/15/04 24590-WTP-GPP-CON-7104, "Non-conforming Reporting & Control," 4/22/04 24590-WTP-GPP-PSQ-044, "Final Source Verification," 6/22/04 24590-WTP-GPP-3DP-G06B-00001, "Material Requisitions," Revision 7, 1/09/04 24590-WTP-GPP-PSQ-050, "Receiving Inspection," Revision 0, 5/21/04 24590-WTP-GPP-GCB-00100, "Field Material Management," Revision 9, 5/27/04

U.S. DEPARTMENT OF ENERGY Office of River Protection

INSPECTION: CH2M HILL Suspect/Counterfeit Items Effectiveness

REPORT NO: A-04-ESQ-TANKFARM-009

FACILITY: CH2M Hill Hanford Group, Inc.

LOCATION: 2750 Bldg, 200 Area

DATES: July 19 - 20, 2004

Assessment Team: Sam Vega, Assessment Team Leader/Assessor

APPROVED BY: P. Carier, Verification and Confirmation Official,

Environmental Safety & Quality Division

Executive Summary

Introduction

From July 19 - 20, 2004, the U.S. Department of Energy (DOE), Office of River Protection (ORP) conducted an assessment of the CH2M HILL Hanford Group, Inc. (CH2M HILL) Suspect/Counterfeit Item (S/CI) Program. This assessment was initiated as a result of a memorandum dated July 7, 2004, from the Deputy Assistant Secretary, Corporate Performance Assessment, Office of Environment, Safety and Health which directed ORP to perform a review to verify the effective implementation of the Contractor's S/CI process. The assessment focused on information posted on the DOE S/CI webpage addressing certification issues with valves provided by the Hunt Valve Company, Inc., and on the activities applied to verify that the non-conforming valves had not been used.

Significant Issues and Conclusions

The assessment found the CH2M HILL S/CI Program was effectively implemented. The Hunt valve issue had been properly processed and was being addressed. Initial investigative results indicated CH2M HILL had not purchased valves from the Hunt Valve Company, Inc., or its distributors, and that these non-conforming valves were not in current inventories. The assessment confirmed the accuracy of this conclusion by reviewing the actions taken by CH2M HILL. The assessment resulted in no Findings and one opportunity for improvement which CH2M HILL has committed to incorporate into the S/CI process (captured in CH2M HILL PER 2004-3973).

Suspect/Counterfeit Items Program

The assessment determined CH2M HILL had in place an effective S/CI program with procedures addressing:

- The identification of potential S/CI issues;
- The evaluation of S/CI information to determine impact;
- The implementation of controls to prevent use of identified S/CIs within the Tank Farms;
- The notification of any identified S/CIs to the DOE and the Office of the Inspector General; and
- The disposition and physical control of any S/CIs found.

Procedures also adequately addressed training requirements for personnel dealing with S/CIs. The assessment verified implementation of these procedures. The assessment identified one opportunity for improvement where the CH2M HILL S/CI procedure did not fully satisfy the DOE O 414.1B, "Quality Assurance," requirement for using/maintaining the most accurate, upto-date information on S/CIs. The CH2M HILL contract did not require CH2M HILL to be compliant with DOE O 414.1B. At the time of this assessment, DOE was in the process of updating the contract.

The Hunt Valve Company, Inc. Issue

The assessment determined through interviews and a review of procedures that CH2M HILL processed all S/CI investigations in their corrective action management system using a Problem Evaluation Request (PER). The assessment located PER (PER-2003-4305) which addressed the initial U.S. Nuclear Regulatory Commission Bulletin about the Hunt Valve Company, Inc. dated August 2003. The assessment also found that the recent S/CI notices posted in the DOE S/CI webpage also were captured in a PER (PER-2004-3967). Initial investigation efforts for this PER have concluded that CH2M HILL did not use the Hunt Valve Company or any of its distributors, and that there were no Hunt valves in warehouse inventories. The assessment confirmed the accuracy of this conclusion by reviewing the actions taken with the Procurement and Material Management Director. The decision to query sub-contractors had not yet been made at the time of this assessment, but this was not a concern because the PER was still open, the CH2M HILL evaluation was still ongoing, and all actions had not yet been determined or completed. The assessor identified no issues, and found the handling of the Hunt Valve Company, Inc. issue was effective. Even though all actions were not completed and the PER was not closed at the time of the assessment, the assessor found the process adequate to provide a high degree of assurance that nonconforming valves will not be inadvertently introduced into the Tank Farm inventory.

CH2M HILL Hanford Group, Inc. (CH2M HILL) Suspect/Counterfeit Items (S/CI) Effectiveness Assessment

Assessment Purpose and Scope

During the period of July 19 - 20, 2004, the U.S. Department of Energy (DOE), Office of River Protection (ORP) conducted an assessment of the CH2M HILL S/CI Program. ORP Initiated this assessment as a result of a memorandum dated July 7, 2004, from the Deputy Assistant Secretary, Corporate Performance Assessment, Office of Environment, Safety and Health which directed the ORP to perform a review to verify the effective implementation of the Contractor's S/CI processes. The assessment focused on reports posted on the DOE S/CI webpage addressing certification issues with valves provided by the Hunt Valve Company, Inc. Due to the safety significance of these non-conforming valves, the Deputy Secretary requested the ORP use the Hunt non-conforming valves issue as an opportunity to verify that:

- S/CI processes are effectively implemented; and
- These Hunt non-conforming valves were not used at the Hanford Site.

The assessment used the Hunt valve example to walk through the contractor's implementation of their S/CI processes to determine whether:

- The contractor had determined whether or not Hunt non-conforming valves were in use or exist within the contractor's inventory;
- Appropriate actions were taken to document, control, and report the non-conforming valves (if any were identified); and
- Existing processes provide a high degree of assurance that non-conforming valves will not be inadvertently introduced into the CH2M HILL inventory.

The assessment used the lines of inquiry provided with the July 7, 2004, memorandum to conduct this assessment.

Overall Conclusions

The assessment found the CH2M HILL S/CI Program was implemented effectively, and the Hunt Valve issue had been properly processed and was being addressed. Initial investigative results indicated CH2M HILL had not purchased valves from the Hunt Valve Company, Inc., or its distributors, and that these non-conforming valves were not in current inventories. The assessment resulted in no findings and one opportunity for improvement:

Improvement Opportunity 1: The CH2M HILL S/CI process did not fully satisfy the requirement for maintaining current, accurate information on S/CIs (captured in PER-2004-3973). (Addresses lines of inquiry PART 1, No. 6)

Suspect/Counterfeit Items Program (Addresses lines of inquiry for PART 1)

The assessor determined through interviews and a review of procedures that CH2M HILL processed all S/CI investigations in their corrective action management system using a Problem Evaluation Request (PER). PERs documented potential S/CI issues and initiated evaluations. Investigative activities were then determined and action assignments made. The PERs captured results of those actions and, if required, tracked any corrective actions needed. The assessor verified the effectiveness of CH2M HILL's S/CI prevention process by reviewing the resolution of several PERs which addressed S/CI issues. Included in this review were PER-2003-4305, which documented the original Hunt Valve incident, and PER-2004-3967, which documented the more recent Hunt Valve information posted on the DOE S/CI webpage. In addition, the assessor reviewed the related documentation maintained with the PERs to verify CH2M HILL took adequate actions. The assessor also reviewed process procedures and verified process requirements were understood and would be followed in the event S/CIs (such as Hunt Valves) were identified by the Contractor. (Addresses lines of inquiry PART 1, No. 4) The S/CI process was governed by the following procedures:

- TFC-ESHQ-Q-C-C-03, "Control of Suspect/Counterfeit Items," Revision B, December 31, 2003;
- TFC-OPS-OPER-C-28, "Lessons Learned," Revision A, March 16, 2004;
- TFC-ESHQ-AMD-C-02, "Non-conforming Item Reporting and Control," Revision A-2, March 30, 2004; and
- TFC-ESHQ-Q-C-C-01, "Problem Evaluation Request," Revision B-7, July 14, 2004. (Addresses lines of inquiry PART 1, No. 1)

CH2M HILL procedure TFC-ESHQ-Q-C-C-03, "Control of Suspect/Counterfeit Items," Revision B, February 31, 2003, was the main S/CI procedure reviewed. This procedure provides a list of known S/CI items in Attachment A. Attachment C provides a list of S/CI information sources. The following was noted about the procedure (Improvement Opportunity 1) (Captured in CH2M HILL PER-2004-3973):

- The list in Attachment A was required to be reviewed and revised once a year. This was not
 consistent with the DOE O 414.1B requirement to use the most accurate, up-to-date
 information;
- The S/CI source list in Attachment C did not include the DOE website; and

• There was no process requirement to review the DOE S/CI website for current S/CI information as directed in DOE O 414.1B.

The assessor reviewed several PERs (2004-3237, 2004-1934, 2003-3655, 2004-3967 and 2003-4305) and their supporting documentation to verify if S/CI material was disseminated to suppliers and sub-contractors. The assessor determined suppliers and sub-contractor were notified by CH2M HILL if identified problems were significant. However, CH2M HILL primarily relies on individual subcontractor S/CI programs required to be in place by contract clauses. Conformance to these requirements was verified during supplier evaluations as a condition for inclusion into the approved supplier's list. (Addresses lines of inquiry PART 1, No. 1 and No. 4, and PART 2, No. 5)

The assessor verified CH2M HILL had identified a management position responsible for S/CI activities, which serves as point-of-contact to interface with the DOE and the Office of River Protection of the Inspector General as required. For CH2M HILL, the Quality Assurance (QA) Program Manager has this responsibility, and within the QA Program Manager's organization there was a designated S/CI Coordinator. (Addresses lines of inquiry PART 1, No. 2)

The assessor verified the training requirements in procedure TFC-ESHQ-Q-C-C-03, "Control of Suspect/Counterfeit Items," were met by reviewing electronic training history files for three QA staff. The assessor also reviewed PER-2003-4786 which resulted from a CH2M HILL surveillance Finding issued because individuals were missing S/CI training. The assessor verified this issue was resolved by reviewing the closure documentation maintained for this PER. The assessor also reviewed training rosters of recent S/CI training provided to the Hanford Site by DOE in May 2004, and found the training was attended by organizations such as procurement, maintenance, operations, and QA. (Addresses lines of inquiry PART 1, No. 5)

Receipt Inspection activities for CH2M HILL were performed by Fluor Hanford, Inc. (FHI). The assessor did not assess this effort because FHI was the Management Contractor for the DOE Richland Operations Office (RL). The RL assessment covered S/CI activities performed by FHI.

Conclusion

The assessor determined the CH2M HILL S/CI program was effective and personnel associated with S/CI were properly trained. Existing processes were effective and provided a high degree of assurance that S/CIs will not be inadvertently introduced into the CH2M HILL inventory. Improvements (see Improvement Opportunity 1) with the program identified were primarily because of the differences between DOE O 414.1B and the previous revision to the Order. At the time of this assessment, DOE had not yet completed its efforts to update the CH2M HILL contract to require implementation of DOE O 414.1B.

The Hunt Valve Company, Inc. (Addresses lines of inquiry for PART 2)

The assessor verified the contractor S/CI process had identified the recent Hunt Valve Company, Inc. notices as a potential issue and had initiated an investigation to determine impact. The assessor found PER-2004-3967 had been written to track the investigation. Initial investigation results found there were no services ever procured from Hunt Valve Company, Inc., nor had valves been purchased from Hunt Valve or its distributors. It was also determined none of these non-compliant valves were in the CH2M HILL inventory. The assessor confirmed the accuracy of this conclusion by reviewing the actions taken with the Procurement and Material Management Director. At the time of this assessment, the decision to query subcontractors had not yet been made, but this was not a concern to the assessor because the PER evaluation had not yet been completed and all actions had not yet been determined. Actions performed were timely and the assessor determined the process in place was sufficient to assure non-conforming valves will not be inadvertently introduced into the CH2M HILL inventory. (Addresses lines of inquiry PART 2, No. 1, No. 2 and No. 3)

The assessor found the original Hunt Valve issue with 1-inch valves for UF6 cylinders was documented in PER-2003-4305, and the subsequent investigations had determined these valves were never used.

The assessor determined through interviews that CH2M HILL relied on the Procurement, Supplier Qualification, and the Receipt Inspection processes to assure S/CI (in this case, Hunt Valves) were not introduced into the site. The assessor verified this by reviewing the procurement process procedures and confirmed they adequately addressed S/CI issues in their perspective activities. Receiving inspection activities for CH2M HILL were performed by FHI. The RL assessment covered S/CI activities performed by FHI. (Addresses lines of inquiry PART 2, No. 5)

Conclusion

The assessor concluded CH2M HILL had an effective process in place that provided a high degree of assurance that non-conforming items were not inadvertently introduced into the CH2M HILL Facilities. Procedure TFC-ESHQ-Q-C-C-03, "Control of Suspect/Counterfeit Items," Revision B, provided the process framework. This procedure worked in conjunction with other processes such as Procurement, Receipt Inspection, Lessons Learned, Non-Conformance Reporting and Controls, and Problem Evaluation Reporting to process and control S/CI activities. CH2M HILL staff was aware of the Hunt Valve issue, and progression of the investigation was timely.

List of Open Assessment Items

A-04-ESQ-TANKFARM-009-I01 Improvement The CH2M HILL S/CI process did not fully

Opportunity satisfy the requirement for maintaining current, accurate information on S/CIs

(captured in PER-2004-3973)

Individuals Interviewed

- Procurement and Material Management Director;
- Quality Assurance Program Engineer;
- Quality Assurance Program Manager; and
- Quality Assurance Director;

Documents Reviewed

PER RECORDS

| PER-2003-4786 | PER-2004-3973 | PER-2004-3967 |
|---------------|---------------|---------------|
| PER-2003-4305 | PER-2004-3237 | PER-2004-1934 |
| PER-2003-3655 | | |

PROCEDURES (Addresses lines of inquiry PART 1, No. 1)

TFC-ESHQ-Q-C-C03, "Control of Suspect/Counterfeit Items," Revision B, 12/31/03 TFC-ESHQ-Q-ADM-C-02, "Nonconforming Item Reporting and Control," Revision A-2, 03/30/04

TFC-OPS-OPER-C-28, "Lessons Learned," Revision A, 03/16/04

TFC-ESHQ-Q-C-C-01, "Problem Evaluation Request," Revision B-7, 07/14/2004

HNF-PRO-301, "Control of Suspect/Counterfeit Items," Revision 10, 03/18/04

TFC-BSM-CP_CPR-C-06, "Procurement of Items (Materials)," Revision C-2, 6/11/04

TFC-BSM-CP CPR-C-05, "Procurement of Services," Revision D-2, 7/07/04

OTHER DOCUMENTS

E-Mail, From: Procurement and Material Management Director to Director ES&H, "Verification of Non-Conforming S/CI Valves," Dated July 19, 2004

Training Rosters, "Suspect/Counterfeit Item Training," spanning from May 18 - 20, 2004 (DOE Headquarters Sponsored Training)

ITEMS Database Training History Files (for S/CI Coordinator, Quality Assurance Program Engineer, Quality Assurance Program Manager)