



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

P.O. Box 450  
Richland, Washington 99352  
SEP 30 2003

03-ESQ-064

Mr. E. S. Aromi, President  
and General Manager  
CH2M HILL Hanford Group, Inc.  
Richland, Washington 99352

Dear Mr. Aromi:

CONTRACT NO. DE-AC27-99RL14047 – U.S. DEPARTMENT OF ENERGY, OFFICE OF RIVER PROTECTION (ORP) ASSESSMENT REPORT, A-03-ESQ-TANKFARM-006, OF CH2M HILL HANFORD GROUP, INC. (CH2M HILL) QUALITY ASSURANCE PROGRAM AND PERSONNEL TRAINING AND QUALIFICATION, AUGUST 18 – 22, 2003

This letter forwards the results of the subject assessment. The assessment team concluded CH2M HILL has implemented its programs for quality assurance, as well as for personnel qualification and training. One Finding, one Observation, and one assessment follow-up item were identified during the assessment. The Finding did not result in a significant safety issue and is described in the Notice of Finding (Attachment 1). Details of the assessment, including the Finding, are documented in the assessment report (Attachment 2).

The Finding documents that CH2M HILL did not maintain records of the verification of personnel education and experience for activities governed by requirements of the Office of Civilian Radioactive Waste Management (OCRWM). ORP is concerned that this condition, if uncorrected, could adversely impact future shipments of waste to facilities requiring compliance with OCRWM requirements. The Observation noted CH2M HILL had not systematically assessed its compliance with regulatory requirements, although there were processes in place intended to assure regulatory compliance. The ability of CH2M HILL to recover qualification records from off-site archives will be verified by ORP in accordance with the assessment follow-up item.

Please provide a response to Finding A-03-ESQ-TANKFARM-006-F-01 within 30 days from receipt of this letter. The response should address the instructions provided in Attachment 1.

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

Sincerely,

Roy J. Schepens  
Manager

ESQ:DHB

Attachments (2)

## Notice of Finding

The responsibilities of CH2M HILL Hanford Group, Inc. (CH2M HILL) as they relate to the Quality Assurance (QA) requirements of CH2M HILL's scope of work are defined in the River Protection Project Tank Farm Contract,<sup>1</sup> Part I – The Schedule, Section H, H.30 *Quality Assurance System*. H.30 states, "The Contractor shall develop and implement a company specific Quality Assurance Program (QAP), supported by documentation that describes its overall implementation of Quality Assurance (QA) requirements." The QAP shall be developed based on:

- Title 10 Code of Federal Regulations (CFR) Part 830.122 for all nuclear facilities and projects within the scope of that document.
- DOE O 414.1A, *Quality Assurance*, requirements for facilities and projects not within the scope of 10 CFR 830.120.
- Office of Civilian Radioactive Waste Management (OCRWM) *Quality Assurance Requirements and Description*, DOE/RW-0333P, for those elements of CH2M HILL's scope of work that involves the interim storage of spent nuclear fuel and high-level radioactive waste.

CH2M HILL's QA program is defined in TFC-PLN-02, *CH2M HILL Hanford Group, Inc. Quality Assurance Program Description*. Implementing procedures describe processes to meet the requirements described in CH2M HILL's Quality Assurance Program Description (QAPD).

During performance of an assessment of CH2M HILL's quality assurance program, training, and personnel qualification, conducted August 18 – 22, 2003, at CH2M HILL's offices, the U.S. Department of Energy, Office of River Protection (ORP) identified one Finding discussed below.

**Finding A-03-ESQ-TANKFARM-006-F-01** – CH2M HILL did not maintain the required records documenting verification of education and experience for personnel participating in activities governed by OCRWM requirements.

### Requirement:

1. DOE/RW-0333P, OCRWM, *Quality Assurance Requirements and Description*, Revision 5, Section 2.2.12.B.4 stated, "Minimum education and experience are verified or, when minimum education and experience cannot be verified, documented justification is provided for the personnel assignment."

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<sup>1</sup> Contractor DE-AC27-99RL14047 between the U.S. Department of Energy and CH2M HILL Hanford Group, Inc., dated September 30, 1999.

2. TFC-PRJ-PM-C-14, Revision B, *OCRWM Personnel Training*, Section 6.0, *Records*, stated, "The following lifetime QA records are generated during the performance of the procedure: Documented Verification of Education and Experience."

**Discussion:**

Contrary to these requirements, three out of three sampled CH2M HILL records for documenting education and experience for OCRWM work did not provide objective evidence the required verifications were performed. The forms were identified as *Project W-464 Verification of Education for Applicable OCRWM Position* and should have been completed for most technical and management positions on Project W-464. The forms were designed to be authenticated by the individual who verified the candidates' education and experience. However, the forms did not provide objective evidence of the verification. The forms included the following deficiencies:

- One form included a handwritten note stating, "Verification is done by a pre-employment company." The form did not state what company performed the verification and there was no objective evidence of the verification from any pre-employment company.
- One form was simply signed with no indication as to who, when, or how the verification was accomplished, even though the applicable procedure required this information be documented.
- One form provided the name of an individual in the CH2M HILL Human Resources organization as the "contact person," when the "contact person" required by the form was to be a representative of the college or university providing verification information about the candidate's degree.

Representatives of CH2M HILL and Protection Technology Hanford (PTH) said that PTH or a subcontractor performs employment and experience verifications. They also said that records created at the time the verifications are performed are destroyed after one year. TFC-BSM-HR\_EM-C-02, Revision A-1, *Employment*, stated, "... background investigation reports are destroyed." Section 6.0, *Records*, of the same procedure did not require retention of records documenting education and experience. The acting CH2M HILL manager of the Human Resources organization confirmed these documents were destroyed after one year, even though they provided the required objective evidence of the verifications.

CH2M HILL is requested to provide a response to the above Finding within 30 days from the date of this letter. The response should include the following:

1. Admission or denial of the Finding.
2. The reason for the Finding, if admitted, and if denied, the reason why.
3. The corrective steps that have been taken and the results achieved.

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4. The corrective steps that will be taken to avoid further Finding.
5. The date when full compliance with the applicable commitments in your QAPD will be achieved. Where good cause is shown, consideration will be given to extending the requested response time.

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

ASSESSMENT: TANK FARM CONTRACTOR QUALITY ASSURANCE PROGRAM  
AND PERSONNEL TRAINING AND QUALIFICATION

REPORT: A-03-ESQ-TANKFARM-006

FACILITY: CH2M HILL Hanford Group, Inc.

LOCATION: Richland, Washington 99352

DATES: August 18 – 22, 2003

ASSESSORS: Paul Hernandez, Lead Assessor  
David H. Brown, Assessor  
Harold Stafford, Assessor in Training  
Larry Dell, Assessor

APPROVED BY: P. Carier, Team Lead  
Quality and Industrial Safety

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## EXECUTIVE SUMMARY

### INTRODUCTION

This assessment of CH2M HILL Hanford Group, Inc. (CH2M HILL) covered the following specific areas:

- Quality Assurance Program (Section 1.2);
- Personnel Training (Section 1.3); and
- Personnel Qualification (Section 1.4).

The assessors concluded that, notwithstanding Finding A-03-ESQ-TANKFARM-006-F-01 and Observation A-03-ESQ-TANKFARM-006-O-01, CH2M HILL had established and effectively implemented processes for their quality assurance program and training. However, CH2M HILL did not retain some records documenting personnel education and experience that were required by DOE/RW-0333P, *Quality Assurance Requirements and Description*.

### SIGNIFICANT OBSERVATIONS AND CONCLUSIONS

#### Effectiveness of Procedures

The assessors reviewed CH2M HILL's plans and procedures for their quality assurance program and personnel training and qualification activities. The assessors confirmed, with the exception of Finding A-03-ESQ-TANKFARM-006-F-01 and Observation A-03-ESQ-TANKFARM-006-O-01, these procedures adequately implemented the requirements of TFC-PLN-02, Revision A, CH2M HILL *Quality Assurance Program Description*, (QAPD).

#### Quality Assurance Program

The assessors concluded CH2M HILL had developed and implemented an effective quality assurance program including processes for stop work, lessons learned, and the flow down of environmental regulatory requirements. However, CH2M HILL was not performing assessments to confirm regulatory compliance. See Section 1.2.3.

#### Personnel Training

The assessors concluded CH2M HILL had established and implemented an effective training program to ensure personnel proficiency is achieved and maintained, including changes in technology, methods, and job responsibilities.

#### Personnel Qualifications

The assessors concluded CH2M HILL had established processes to qualify personnel and verify education and experience. However, the assessors also concluded CH2M HILL had not maintained the required records of verification of education and experience for personnel participating in work governed by Office of Civilian Radioactive Waste Management

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requirements. The assessors documented this issue in Finding A-03-ESQ-TANKFARM-006-F-01. See Attachment 1, Notice of Finding.



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**Tank Farm Contractor Quality Assurance Program and Personnel Training and Qualification**

**1.0 REPORT DETAILS**

**1.1 Introduction**

In accordance with the River Protection Project (RPP) Tank Farm Contract,<sup>1</sup> CH2M HILL Hanford Group, Inc. (CH2M HILL) must comply with the accepted and approved *Quality Assurance Program Description*, (QAPD) TFC-PLN-02, Revision A.

The assessors reviewed CH2M HILL's quality assurance program (QAP) and processes for training and personnel qualifications to determine if they complied with the commitments in the QAPD and related implementing procedures. The onsite review was conducted from August 18 – 22, 2003. An exit meeting was conducted on August 22, 2003.

**1.2 Quality Assurance Program**

**1.2.1 Assessment Scope**

The assessors reviewed procedures describing CH2M HILL's processes for stop work, lessons learned, and the flow down of environmental regulatory requirements. They also interviewed CH2M HILL personnel and reviewed objective evidence substantiating QAPD implementation.

**1.2.2 Observations and Assessments**

Program Implementation

The assessors reviewed quality assurance program plans (QAPP), procedures, interviewed personnel, and concluded CH2M HILL had a mature quality management system. High level requirements were implemented in coherent implementing procedures controlling stop work, lessons learned, and the flow down of environmental regulatory requirements.

Project Quality Assurance Program Plans

The QAPD required each project to develop project-specific QAPPs. There was considerable difference in depth of the QAPPs for different projects, and the value of the more detailed QAPPs was unclear. For example, the QAPP for Project W-314, HNF-SD-W314-QAPP-001, Revision 4, *Quality Assurance Program Plan, W-314*, provided an in-depth description of the implementation of quality assurance requirements in the project, but HNF-SD-W211-QAPP-001, Revision 6, *Quality Assurance Project Plan, Project W-211, Initial Tank Retrieval System*, provided only an outline of the requirements. In neither case did the QAPP apply any requirements other than the requirements implemented in company procedures applicable to all CH2M HILL project activities. CH2M HILL managers said they were revising the W-314

<sup>1</sup> Contract DE-AC27-99RL14047 between the U.S. Department of Energy and CH2M HILL Hanford Group, Inc., dated September 30, 1999.

QAPP to simplify it, and they were re-evaluating the need for QAPPs for projects when there were no unique quality assurance (QA) requirements.

The QAPP for Project W-211 did not implement the requirement of the QAPD to attach or reference the safety equipment list to the QAPP. When the assessors brought this to the attention of CH2M HILL management, they documented the issue on problem evaluation request (PER) number PER-2003-3268. However, the value of the requirement was not clear to the assessment team. CH2M HILL managers said that part of resolving the PER would be to reevaluate the need for the requirement and to consider removing it from the QAPD at the next annual QAPD update. This was found acceptable by the assessors.

### Flow Down of Environmental Regulatory Requirements

The assessors evaluated the processes by which CH2M HILL assured environmental regulatory requirements were implemented in company procedures. CH2M HILL relied on the Standards/Requirements Implementation Document (S/RID) process to assure regulations had been identified and implemented in technical procedures. The company routinely reviewed publications like the Federal Register to identify regulatory changes needing to be implemented in their procedures. Through review of CH2M HILL environmental compliance documents and interviews with staff, the assessors concluded the staff of the Environmental Program organization was knowledgeable of and attentive to the applicable state and federal regulations.

Procedure HNF-IP-0482, Volume 6, Section 5.1, *Radioactive Airborne Effluent Sampling*, Revision 2b stated, for record sampler flow measurements, "Flow measurements using mass flow devices shall be accurate within 2%." The assessors found procedure 6-PCD-521, Revision A-8 applied a calibration accuracy of 10%, which was much greater than the 2% accuracy specified in the CH2M HILL requirements document. Procedure 6-PCD-521 was a typical field procedure implementing this requirement. The requirement originated in Title 40 Code of Federal Regulations (CFR) Part 60, *Standards of Performance for New Stationary Sources*, which specified the 2% requirement in terms of design accuracy of the instrument, rather than the actual accuracy of measurements. Therefore, the field procedure was inconsistent with HNF-IP-0842, but did not conflict with the regulatory requirement. CH2M HILL would improve HNF-IP-0842 by accurately translating the requirement from 40 CFR Part 60 into their requirements document. When the assessment team brought this inconsistency to the attention of CH2M HILL management, they documented the issue in PER-2003-3294.

CH2M HILL had not performed independent or management assessments to confirm compliance of their procedures with environmental regulations and U.S. Department of Energy (DOE) environmental orders. A recent assessment of waste management did consider environmental compliance, but it lacked an objective of *confirming* environmental compliance. While CH2M HILL monitored changes in the regulations and orders, a program of periodic confirmation of regulatory compliance would be consistent with the independent assessment requirements of 10 CFR 830.122 and DOE O 414.1, *Quality Assurance*. Observation A-03-ESQ-TANKFARM-006-O-01 documented this condition warranting CH2M HILL's attention but was not directly linked to compliance with a commitment.

Stop Work

The assessors reviewed TFC-ESHQ-S\_SAF-C-04, Revision A-1, *Stop Work Authority*, to verify it met the requirements of the QAPD. They also interviewed CH2M HILL employees to verify they understood the “stop work” process. Employees were knowledgeable of the process and had exercised it several times in the two week period preceding the fieldwork for this assessment. The company was in the process of developing an additional “time-out” procedure that would allow resolution of some issues without initiating the full “stop work” process. “Stop work” would still apply to conditions where an imminent hazard existed, but “time-out” would be used for safety issues where an imminent hazard did not exist.

Lessons Learned

The assessors reviewed HNF-IP-0842, Volume 2, *Operations*, Section 4.6.3, *Lessons Learned Procedure*, Revision 2h, to verify CH2M HILL had established and effectively implemented a lessons learned program. They also interviewed the manager responsible for the lessons learned program and reviewed documentation of a sample of lessons learned issues. CH2M HILL had a mature lessons learned program. Lessons learned, both from within the company and from other industry sources, were identified, categorized, and evaluated. Target audiences were identified, and written bulletins were issued to audience members. CH2M HILL managers provided evidence that the lessons learned issues were accepted by the audiences.

CH2M HILL required biennial management assessments and annual user surveys of the lessons learned program. The assessors reviewed the available management assessments and user surveys and found they were effective instruments for maintaining and improving the lessons learned process.

**1.2.3 Conclusions**

The assessors concluded CH2M HILL had developed and implemented an effective QAP, including processes for stop work, lessons learned, and the flow down of environmental regulatory requirements. However, CH2M HILL had not performed assessments to confirm compliance of their procedures with environmental regulations and DOE environmental orders. Observation A-03-ESQ-TANKFARM-006-O-01 documents this condition.

**1.3 Personnel Training**

**1.3.1 Assessment Scope**

The assessment team reviewed procedures, interviewed training department staff, observed training classes, reviewed records in the education and experience verification files, and reviewed class handouts to verify CH2M HILL had established and implemented an effective training program.

### 1.3.2 Observations and Assessments

Following the entrance meeting, the assessment team was given a presentation, "DOE Assessment of CH2M HILL Training," by members of the CH2M HILL Training Department staff. The purpose of the presentation was to demonstrate CH2M HILL's understanding and implementation of DOE Order 5480.20A. The presentation addressed requirements of DOE Order 5480.20A and included the following:

- Instructor Qualification Requirements.
- Qualification vs. Certification.
- Systematic Approach to Training (Analyze, Design, Develop, Implement, Evaluate Model).
- Records Maintenance.

The training staff addressed their areas of expertise and responded to questions from the assessors. The presenters were knowledgeable of their work scope and helpful in ensuring the assessors' inquiries were addressed.

#### Training Class Conduct

The assessors attended and observed a training class, "Price-Anderson Amendments Act (PAAA) Basic Overview," course # 350835. The assessment team members used the CH2M HILL procedure TFC-BSM-TQ\_IMP-C-06, Revision A, *Conduct of Classroom Training*, as a guide to determine if the class was conducted in accordance with procedural requirements. The procedure defined expected classroom conduct and the policy for dealing with conduct problems during the presentation of training. The policy applied to all classroom training presented or sponsored by Tank Farm Contractor (TFC) Training. The assessors determined the instructor adequately followed the requirements of the procedure in the conduct of this class.

#### Instructor Qualifications

The assessors interviewed six CH2M HILL instructors and reviewed their individual training and qualification files to verify they possessed the technical knowledge to teach the courses assigned to them, had training in instruction, and had the experience and education required by their positions. The assessors concluded the instructors possessed the technical knowledge to teach the courses assigned to them, had training in instruction, and had the experience and education required by their positions.

The assessors interviewed CH2M HILL Human Development and Communications organization representatives to verify education and experience of employees was verified. CH2M HILL said employment and education verification tasks are subcontracted to an on-site vendor. In order to verify educational credentials the assessors reviewed documents at the on-site vendor, Protection Technology Hanford (PTH). PTH representatives told the assessors employee records are sent to

an off-site repository if an employee has been on board for more than one year. Only one employee of a sample of six from the Training Department had files available at PTH. The records of this employee indicated educational credentials and employment experience were verified by a PTH subcontractor. Section 1.4.2 discusses a condition adverse to quality identified for verification of education and experience.

### Training Course Evaluation

The assessors reviewed students' Level I evaluations from classes and Management Observation Program (MOP) reports conducted in 2003. Overall, the evaluations were positive. Evaluations performed as part of the MOP resulted in several training program PERs for deficiencies observed by CH2M HILL managers. The assessors reviewed the PERs and concluded the deficiencies had been adequately addressed.

### **1.3.3 Conclusions**

The assessors concluded CH2M HILL had established and implemented an effective training program for training class conduct, instructor qualification, and training course evaluation, to ensure personnel proficiency is achieved and maintained, including changes in technology, methods, and job responsibilities.

## **1.4 Personnel Qualifications**

### **1.4.1 Assessment Scope**

The assessors reviewed CH2M HILL procedures, qualification packages, and human resources records to verify processes had been established and effectively implemented to qualify personnel and verify education and experience.

### **1.4.2 Observations and Assessments**

#### Personnel Qualifications

TFC-BSM-TQ\_IMP-C-02, Revision A, *Conduct of Qualification Cards and Guides*, Section 4.7.5, provides instructions on documenting qualification requirements. It stated, "When the candidate has completed all the requirement activities and you are confident in the candidate's ability and/or knowledge of the qualification requirement, then print, sign, and date the specified qualification requirement on the qualification card." Section 4.5 required the candidate's manager to print and sign where indicated on the qualification card if the manager determined training, prerequisites, qualifications, and additional requirements were met.

Contrary to these requirements, five of 23 qualification cards did not have printed names of the evaluator on the qualification card. Three of the positions listed below are included in the Training Implementation Matrix (TIM) required by DOE 5480.20A, Change 1, *Personnel Selection, Qualification, and Training Requirements for DOE Nuclear Facilities*. Qualification cards included the following:

- System Engineer (TIM);
- IT-Project Manager;
- Design Authority (TIM);
- Planner; and
- IT-Component Engineer (TIM).

In addition to the condition adverse to quality described above, one system engineer qualification card did not have Block 2, "Obtain manager's approval of System Notebooks," printed, signed, and dated by the responsible manager. Incomplete qualification records pose a problem when personnel transfer into strict compliance programs such as Project-464, governed by the Office of Civilian Radioactive Waste Management (OCRWM) *Quality Assurance Requirements and Description*, requirements. When the assessors brought these problems to the attention of CH2M HILL managers, they initiated PER number PER-2003-3238.

#### Personnel Education and Experience Records for OCRWM Work

The assessors interviewed personnel from the CH2M HILL Human Resources organization; reviewed project files for work governed by OCRWM requirements, and interviewed personnel from PTH to confirm personnel education and experience had been verified by CH2M HILL. The project files contained forms intended to document verification of education and experience for technical personnel performing work governed by OCRWM requirements; however, the forms did not provide objective evidence the required verifications were performed.

Representatives of CH2M HILL and PTH said that PTH or a subcontractor performed education and experience verifications. They also said records created at the time the verifications were performed were destroyed after one year, although they gave no reason for this practice. The assessors reviewed a sample of three verification forms out of a population of 19 documenting education and experience for personnel working under OCRWM requirements. CH2M HILL managers said the information on the forms was based on the verifications performed by PTH, although the PTH records were destroyed after one year. The assessors found the following deficiencies:

- One form included a handwritten note stating, "Verification is done by a pre-employment company." The form did not state what company performed the verification and there was no objective evidence of the verification from any pre-employment company.
- One form was simply signed with no indication as to who, when, or how the verification was accomplished, even though space was provided on the form for this purpose.
- One form provided the name of an individual in the CH2M HILL Human Resources organization as the "contact person," when the "contact person" required by the form was intended to be a representative of the college or university providing verification information about the candidate's degree.

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The destruction of records verifying education and experience for personnel working under OCRWM requirements has the potential for exposing CH2M HILL to OCRWM certification risks and difficulties in shipping OCRWM waste. The assessors documented this condition adverse to quality in Finding A-03-ESQ-TANKFARM-006-F-01. See Attachment 1, Notice of Finding.

TFC-PLN-02, *Quality Assurance Program Description*, Revision A-1, Section 2.2.3.3, *Training and Qualification Records*, stated, "Records shall be maintained to enable verification that personnel completed required training, qualification, and certification ...." The assessors interviewed the acting CH2M HILL Human Resources Manager and a Human Resources Specialist. The assessors also asked to review objective evidence to verify a sample of 35 of 1451 CH2M HILL employees' education and experience had been verified. The assessors submitted a list of employees to CH2M HILL before assessment field work began which contained 22 personnel whose positions are listed in the CH2M HILL Training Implementation Matrix, Revision 20A-2a. The manager stated CH2M HILL human resources employs PTH to verify education and previous work experience for new hires. In an interview with a PTH security specialist, the specialist stated verification of education and experience was performed by a subcontractor through the following:

- Internet connection to the educational institute;
- Fax; and
- Phone calls.

CH2M HILL representatives stated training and qualification records were archived off-site after one year. The assessors were not provided the records therefore were unable to observe CH2M HILL demonstrate they could recover records from the off-site archive in a reasonable period of time. This will be reviewed in a future ORP assessment and will be tracked as assessment follow-up item A-03-ESQ-TANKFARM-006-AFI-01.

#### **1.4.3 Conclusion**

The assessors concluded CH2M HILL had established processes to qualify personnel and verify education and experience. However, CH2M HILL had not maintained records to enable confirmation that personnel education and experience had been verified. Therefore, the CH2M HILL processes for maintenance of records to verify personnel education and experience were not effective. The assessor documented this issue in Finding A-03-ESQ-TANKFARM-006-F-01. See Attachment 1, Notice of Finding.

## **2.0 EXIT MEETING SUMMARY**

The assessors presented preliminary assessment results to members of CH2M HILL's management at an exit meeting held on August 22, 2003. CH2M HILL acknowledged the conclusions presented.



The assessors asked CH2M HILL whether any materials examined during the assessment should be considered as proprietary data. No proprietary data were identified.

### 3.0 REPORT BACKGROUND INFORMATION

#### Partial List of Persons Interviewed:

- Bailey, D. M., CH2M HILL, Instructor
- Bennington, T., CH2M HILL QA
- Biagini, J. C., CH2M HILL W-314 Project
- Bickel, E. E., CH2M HILL RadCon Program
- Bores, J. F., CH2M HILL QA Field Support
- Carrell, D. J., CH2M HILL Environmental Field Support
- Coffland, K. D., CH2M HILL Training Specialist
- Crummel, G. M., CH2M HILL Environmental Field Support
- Cuneo, J. R., CH2M HILL, Instructor
- Davis, S. A., CH2M HILL, ITEM Administrator
- Debusk, R. E., CH2M HILL Safety and Health
- Dixon, W. T., CH2M HILL Environmental Program
- Ellingsworth, J. A., CH2M HILL, Instructor
- Fox, S.S., CH2M HILL Training Records Specialist
- Gay, D. C., CH2M HILL, Instructor
- Gustavson, R. D., CH2M HILL Engineering Standards
- Hassell, H. M., CH2M HILL QA Director (acting)
- Jennings, P., CH2M HILL, Instructor
- Kemp, C. J., CH2M HILL Environmental Field Support
- Kubie, D. L., CH2M HILL, Instructor
- Kummer, D. A., CH2M HILL, Instructor
- Latteri, M. J., CH2M HILL Acting Human Resources Manager
- Maciuca, C., CH2M HILL QA
- McKennon, A. C., CH2M HILL Director of Training and Procedures
- Miller, P. C., CH2M HILL Environmental Field Support
- Molnaa, J. M., ESH & QA
- Mulkey, C. H., CH2M HILL Environmental Filed Support
- Skamser V.L., PTH, Security Specialist
- Winter, J. A., CH2M HILL Human Resource Specialist

### 3.1 Records Reviewed

#### 3.1.1 Documents

1. Survey Results, Lessons Learned Survey.
2. River Protection Project Lessons Learned Log 2003.

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3. HNF-SD-WM-DQO-001, Revision 5, *Data Quality Objectives for Tank Farms Waste Compatibility Program.*
4. RPP-8791, Revision 1, *Project Execution Plan for Tank S-112 Saltcake Waste Retrieval Technology Demonstration.*
5. DWG H-14-105280, sheet F, Revision 0, *1000 CFM Exhaust System GEMS Sample Cabinet.*
6. 40 CFR 60 App. A-1, Method 2A.
7. CH2MHILL FY2003 Integrated Assessment Schedule.
8. Data Sheet A-6003-524 (04/03), *CAM Inspections and Source Checklist (Initial).*
9. CH2M HILL Hanford Group, Inc., Position Description, Operations Specialist, dated April 16, 2002.
10. CH2M HILL Hanford Group, Inc., Position Description, Design Authority Engineer, dated April 15, 2002.
11. CH2M HILL Hanford Group, Inc., Position Description, HR Specialist Compensation & Benefits, dated April 17, 2002.
12. CH2M HILL Hanford group, Inc., Position Description, Audit Director, dated April 16, 2002.
13. CH2M HILL Hanford Group, Inc., Position Description, Quality Assurance Engineer, dated July 11, 2002.
14. CH2M HILL Hanford Group, Inc., Position Description, Environmental Specialist, dated April 16, 2002.
15. CH2M HILL Hanford Group, Inc., Position Description, Systems Engineer, dated August 9, 2002.
16. CH2M HILL Hanford group, Inc., Position Description, Component Engineer, dated April 11, 2002.
17. CH2M HILL Hanford Group, Inc., Position Description, Technical Specialist, dated July 16, 2002.
18. CH2M HILL Hanford Group, Inc., Position Description, Production Control Planner, dated July 15, 2002.

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19. CH2M HILL Hanford Group, Inc., Position Description, Interim Stabilization Engineer, dated July 10, 2002.
20. CH2M HILL Hanford Group, Inc., Position Description, Hazardous Materials Specialist, dated April 17, 2002.
21. CH2M HILL Hanford Group, Inc., Position Description, Senior Technical Advisor, dated July 19, 2002.
22. CH2M HILL Hanford Group, Inc., Position Description, Shift Manager (Work Release), dated April 4, 2002.
23. CH2M HILL Hanford Group, Inc., Position Description, Industrial Hygienist, dated July 17, 2002.
24. CH2M HILL Hanford Group, Inc., Position Description, Sr. Procurement Specialist, dated April 15, 2002.
25. CH2M HILL Hanford Group, Inc., Position Description, Administrative Specialist, dated April 16, 2002.
26. CH2M HILL Hanford Group, Inc., Position Description, Work Week Manager, dated June 28, 2002.
27. CH2M HILL Hanford Group, Inc., Pre-Employment/Pre-Clearance Suitability Investigation form dated June 2000.
28. CH2M HILL Hanford Group, Inc., Position Description, Training Instructor, dated April 16, 2002.
29. Form A-6000-979, Review of Instructional Staff # 0047719, dated September 21, 2001.
30. Form A-6003-516, TFC Classroom Management Observation Checklist, course titled Continuing Training, Cycle 03-02, dated April 28, 2003.
31. Form A-6003-516, TFC Classroom Management Observation Checklist, course titled Proud to Lead, dated July 7, 2003.
32. Form A-6003-516, TFC Classroom Management Observation Checklist, course titled 8-HR Hazardous Waste Refresher I-DHWRWA052003, dated May 20, 2003.
33. Management Observation write-up, course titled Prejob Brief for A101 Prox Probe Replacement, dated July 25, 2003.

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34. Student Handout, CH2MHILL Hanford Group Price Anderson Amendments Act (PAAA) Basic Overview, course # 350835, not dated.
35. Student Handout, Buyer's Technical Representative, upgrade 103, not dated.
36. Schedule of Presenters, Buyer's Technical Representative, upgrade 103, not dated.
37. Training Schedule for August/September/October 2003, dated June 24, 2003.
38. Organizational Chart, CH2M HILL Human Development and Communications, dated March 31, 2003.
39. CH2M HILL letter from E. S. Aromi to R. J. Schepens, Office of Price-Anderson Enforcement Program Review of CH2M Hill Hanford Group, Inc., dated March 27, 2003.

**3.1.2 Procedures, Plans, and Other Directives**

1. DOE/RW-0333P, Office of Civilian Radioactive Waste Management (OCRWM), *Quality Assurance Requirements and Description*, Revision 5.
2. DOE O 5480.20A, *Personnel Selection, Qualification, and Training Requirements for DOE Nuclear Facilities*, Change 1, dated July 12, 2001.
3. HNF-IP-0842, Volume 11, Sect. 1.6, Revision 0c, *Quality Assurance Program Plans*.
4. TFC-ESHQ-Q\_ADM-D-04, Revision A-1, *Quality Assurance Program Description Implementation Matrix*.
5. HNF-IP-0842, Vol. 6, Sect. 1.7, Revision 0b, *Air Quality – Radioactive Emissions*.
6. TFC-PRJ-PM-C-14, Revision B, *OCRWM Personnel Training*, Revision B.
7. TFC-BSM-AD-C-01, Revision D-4, *Administrative Document Development and Maintenance*.
8. TF-OPS-018, Revision A-5, *Inspections and Source Checks on POR03, POR04, POR05, POR06, and POR-008 AMS-4 CAMs and Effluent Record Samplers*.
9. HNF-SD-W314-QAPP-001, Revision 4, *Quality Assurance Program Plan, W-314*.
10. HNF-SD-W211-QAPP-001, Revision 6, *Quality Assurance Project Plan, Project W-211, Initial Tank Retrieval System*.

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11. HNF-IP-0482, Volume 6, Section 5.1, *Radioactive Airborne Effluent Sampling*, Revision 2b, dated July 24, 2002.
12. RPP-QAPP-009, Revision 0b, *Waste Feed Operations Quality Assurance Program Plan*.
13. RPP-QA-004, Revision 0, *NESHAP Quality Assurance Program Plan for Tank Farm Contractor Radioactive Air Emissions*.
14. TFC-BSM-TQ\_ADD-C-01, Revision A, *Training Analysis, Design, and Development*, dated August 26, 2002.
15. TFC-BSM-TQ\_IMP-C-02, Revision A, *Conduct of Qualification Cards and Guides*, dated August 23, 2002.
16. TFC-BSM-TQ\_IMP-C-04, Revision A-1, *Conduct of On-The-Job-Training*, dated December 27, 2002.
17. TFC-BSM-TQ\_IMP-C-05, Revision A-2, *Conduct of Written Examinations*, dated August 26, 2003.
18. TFC-BSM-TQ\_IMP-C-06, *Conduct of Classroom Training*, Revision A, dated October 14, 2002.
19. TFC-BSM-TQ\_MGT-C-01, Revision A, *Training Equivalencies and Extensions and Educational and Experience Equivalencies*, dated July 31, 2002.
20. TFC-BSM-TQ\_MGT-C-02, Revision A-2, *Integrated Training Electronic Matrix (ITEM) Administration*, dated March 13, 2003.
21. TFC-BSM-TQ\_MGT-C-04, Revision A, *Training Records Administration*, dated October 31, 2002.
22. TFC-BSM-TQ\_MGT-P-07, Revision A, *Training Evaluation*, dated April 16, 2003.
23. TFC-BSM-TQ-STD-01, Revision B-2, *Technical Staff Qualification Requirements*, dated July 10, 2003.
24. TFC-BSM-TQ-STD-02, Revision A-1, *Operations Management Qualifications Requirements*, dated February 24, 2003.
25. TFC-BSM-TQ-STD-03, Revision A-1, *Operations and Maintenance Field Work Supervisor Qualification Requirements*, dated February 24, 2003.
26. TFC-BSM-TQ-STD-06, Revision A, *Instructional Staff Qualification Requirements*, dated February 25, 2003.

**3.1.3 Problem Evaluation Reports**

1. Problem Evaluation Report (PER)-2003-3294
2. PER-2003-3268
3. PER-2003-2973
4. PER-2003-0657
5. PER-2003-1994, Management Observation for BTR Upgrade 350246 training, dated May 22, 2003.

**3.2 Assessment Procedures Used**

ORP M 220.1 R1, *ORP Integrated Assessment Program*, dated May 16, 2002.

**3.3 List of Items Opened, Closed, and Discussed**

**3.3.1 Items Opened**

Findings

<b>A-03-ESQ-TANKFARM-006-F-01</b>	CH2M HILL did not maintain the required records documenting verification of education and experience for personnel participating in activities governed by Office of Civilian Radioactive Waste Management requirements. See Attachment I, Notice of Finding, and Section 1.4 for details.
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Observations

<b>A-03-ESQ-TANKFARM-006-O-01</b>	CH2M HILL should consider independent assessments of compliance with environmental regulations. See Section 1.2 for details.
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Follow up Items

<b>A-03-ESQ-TANKFARM-006-AFI-01</b>	Verify CH2M HILL can retrieve records confirming verification of education and experience for employees who have been on the job greater than one year.
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**3.3.2 Items Closed**

None

### 3.3.3 Items Discussed

None

### 3.4 List of Acronyms

ADDIE	Analyze, Design, Develop, Implement, Evaluate
CH2M HILL	CH2M HILL Hanford Group, Inc.
DOE	U.S. Department of Energy
MOP	Management Observation Program
OCRWM	Office of Civilian Radioactive Waste Management
ORP	Office of River Protection
PAAA	Price-Anderson Amendments Act
PER	Problem Evaluation Request
PTH	Protection Technology Hanford
QA	Quality Assurance
QAPD	Quality Assurance Program Description
QAPP	Quality Assurance Program Plan
S/RID	Standards and Requirements Implementation Document
RPP	River Protection Project
TIM	Training Implementation Matrix
TFC	Tank Farm Contractor

E-STARS™ Report  
 Task Detail Report  
 09/30/2003 09:55

TASK INFORMATION			
<b>Task#</b>	ORP-ESQ-2003-0058		
<b>Subject</b>	CONCUR 03-ESQ-064/CH2M HILL QA Program and Personnel Training and Qual Assessment		
<b>Parent Task#</b>		<b>Status</b>	CLOSED
<b>Reference</b>		<b>Due</b>	
<b>Originator</b>	Hopkins, Dianne	<b>Priority</b>	None
<b>Originator Phone</b>	(509) 376-4132	<b>Category</b>	None
<b>Origination Date</b>	09/17/2003 08:23	<b>Generic1</b>	
<b>Remote Task#</b>		<b>Generic2</b>	
<b>Deliverable</b>	None	<b>Generic3</b>	
<b>Class</b>	None	<b>View Permissions</b>	Normal
<b>Instructions</b>	bcc: MGR RDG FILE D. Brown, ESQ P. Carrier, OSR P. Hernandez, ESQ Judy O'Connor, OPA H. Staffer, ORP J. Swailes, AMTF		

ROUTING LISTS		
<b>1</b>	Swailes List	Inactive
	<ul style="list-style-type: none"> <li>● Barr, Robert C - Review - Concur - 09/29/2003 16:28</li> <li>● Swailes, John H - Review - Cancelled - 09/30/2003 09:55</li> <li>● Schepens, Roy J - Approve - Approved with comments - 09/30/2003 09:39</li> </ul>	

ATTACHMENTS	
Attachments	1. 03-ESQ-064 CHG Assessment Attach 1.doc 2. 03-ESQ-064 CHG Assessment Attach 2.doc 3. 03-ESQ-064 CHG Assessment Letter.doc

COMMENTS	
<b>Poster</b>	Schepens, Roy J (Poynor, Cathy D) - 09/30/2003 09:09 Approve signed by Rob Barr for Roy Schepens
<b>Poster</b>	Hopkins, Dianne (Hopkins, Dianne) - 09/30/2003 09:09 CLOSED Swailes concurred 9/29/03

**TASK DUE DATE HISTORY**

No Due Date History

**SUB TASK HISTORY**

No Subtasks

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SEP 30 2003

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E-STARS™ Report  
Task Detail Report  
09/17/2003 08:29

**TASK INFORMATION**

<b>Task#</b>	ORP-ESQ-2003-0058		
<b>Subject</b>	CONCUR 03-ESQ-064/CH2M HILL QA Program and Personnel Training and Qual Assessment		
<b>Parent Task#</b>		<b>Status</b>	Open
<b>Reference</b>		<b>Due</b>	
<b>Originator</b>	Hopkins, Dianne	<b>Priority</b>	None
<b>Originator Phone</b>	(509) 376-4132	<b>Category</b>	None
<b>Origination Date</b>	09/17/2003 08:23	<b>Generic1</b>	
<b>Remote Task#</b>		<b>Generic2</b>	
<b>Deliverable</b>	None	<b>Generic3</b>	
<b>Class</b>	None	<b>View Permissions</b>	Normal
<b>Instructions</b>	bcc: MGR RDG FILE D. Brown, ESQ P. Carier, OSR P. Hernandez, ESQ Judy O'Connor, OPA H. Staffer, ORP J. Swailes, AMTF		

**ROUTING LISTS**

<b>1</b>	Swailes List	Active
	<ul style="list-style-type: none"> <li>● Barr, Robert C - Review - Awaiting Response</li> <li>● Swailes, John H - Review - Awaiting Response</li> <li>● Schepens, Roy J - Approve - Awaiting Response</li> </ul>	<i>PH 9/18 RRB 9/29/03</i> <i>JHC 9/29/03</i> <i>RRB 9/30/03</i>

**ATTACHMENTS**

<b>Attachments</b>	<ol style="list-style-type: none"> <li>03-ESQ-064 CHG Assessment Attach 1.doc</li> <li>03-ESQ-064 CHG Assessment Attach 2.doc</li> <li>03-ESQ-064 CHG Assessment Letter.doc</li> </ol>
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**COMMENTS**

No Comments

**TASK DUE DATE HISTORY**

No Due Date History

**SUB TASK HISTORY**

No Subtasks

-- end of report --

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