

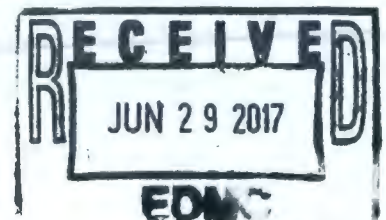
U.S. Department of Energy, Richland Operations Office and the
Office of River Protection

200 Area Effluent Treatment Facility Environmental Compliance Assessment

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Executive Summary

A Department of Energy, Richland Operations Office (RL), Analysis & Evaluation Division (A&E) assessment for environmental regulations compliance was performed at the 200-A Effluent Treatment Facility (ETF) on September 11, through September 14, 2000. The scope of the assessment was the contractor's compliance with the Hanford Site Resource Conservation and Recovery Act (RCRA) Permit Number WA7890008967 requirements covering the treatment, storage and disposal of mixed waste.

An entrance meeting was conducted on September 11, 2000 at the 200-A ETF. The entrance meeting was attended by the A&E assessment team, the Fluor Hanford points of contact and subject matter experts, an RL/Waste Management Division representative and the RL facility representative. The exit meeting was held on September 26, 2000 at the ETF.

The assessment concluded one finding and no observations. The finding involved the requirement for the completion of initial training to be performed within six months of employment. The 6 month requirement is specified in the Part B permit application training chapter but is not included in any of the facility specific procedures or manuals. The six month training time limit is specified in WAC-173-303-330.

The facility's management and workers provided the assessment team with individual courtesy and cooperation and demonstrated a commitment to working safely and providing a quality product. The remaining requirements of the facility RCRA permit that were reviewed by the assessment team were acceptably met.

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I. Introduction and Scope

A. Background

The 200 Area ETF is defined as a "Final Status," treatment, storage and disposal (TSD) unit per RCRA and the Dangerous Waste Regulations of Washington State (WAC). The ETF is authorized to store, treat and ship dangerous and mixed waste in accordance with the conditions of the Hanford Site RCRA Dangerous Waste Permit, the applicable provisions of the WAC Chapter 173-303 and 40 CFR. The ETF is one unit of a multi-part aqueous waste treatment system. Aqueous mixed waste streams as well as nondangerous aqueous waste streams are treated in the ETF. Aqueous waste is generated from various Hanford Facility waste management and remediation activities. The term effluent refers to the treated aqueous waste that is discharged from the ETF.

B. Assessment

This assessment covers the permittee's program for compliance with the RCRA Permit requirements pertaining to the receipt, handling, storage and shipping of mixed waste at the ETF. The purpose of this assessment was to evaluate the ETF for compliance with the Hanford Facility RCRA Permit Number WA7890008967 and to meet a commitment of the Department of Ecology "Final Determination Pursuant to the Hanford Federal Facility Agreement and Consent Order (HFFACO) regarding the U.S. Department of Energy's (DOE) compliance with the Land Disposal Restriction (LDR) Requirements of Washington State's Hazardous Waste Management Act (HWMA) and the Federal Resource Conservation and Recovery Act (RCRA), DOE's Annual Land Disposal Restrictions (LDR) Report, and HFFACO Milestone M-26-01."

The success of any organization at Hanford depends upon the extent to which its products or services satisfy DOE requirements and expectations. Delivery of products or expectations occurs through the implementation of programs, systems, and processes. The responsibility for satisfying the program requirements lies with each member of an organization. The intent of this assessment is to provide objective evidence of the areas in which management and workers need to improve on their ability to perform on the mission and achieve management's goals.

Third party assessments are conducted by DOE to evaluate the total picture of how well the Hanford contractor's (in this case, Fluor Hanford, Inc.) management system complies with the applicable regulatory requirements and standards. This assessment was applied using a graded approach. The assessment was tailored to the specific activities being performed at the ETF.

II. Method

An assessment entry meeting was held at the facility on September 11, 2000. The assessment team members were identified. The purpose of the assessment was declared and the scope of the assessment was described. The conduct of the assessment was reviewed along with the assessment schedule.

The method used for this assessment was a combination of document review, facility walkdown/inspection and interviews. Regulatory documents were reviewed to develop the areas of primary focus for the assessment. The areas of focus are listed below and are not exclusively related to mixed waste storage, but are instead a "comprehensive" look at operational and regulatory compliance areas. The documents used to develop the list for the assessment areas were the Part B permit application, the Dangerous Waste Regulations (WAC 173-303), 40 CFR, RL Facility Representative Surveillances, contractor self-assessments and independent assessments. This assessment focused on the following specific areas:

- Facility records;
- Procedures;
- facility contingency plan;
- personnel training and qualification;
- waste analysis plan;
- operating log and log-keeping practices;
- facility security; and
- self and independent assessments.

The Contractor Oversight and Evaluation Planning process provides the mechanism whereby RL personnel (mission element, mission support, and support service) evaluate contractor performance to ensure work is performed in accordance with the applicable requirements. This process also provides the mechanism to evaluate the adequacy of the contractors' self-assessment (including independent) program and fulfills an important part of the feedback and improvement function of the RL Integrated Management System (RIMS). This process supports implementation of DOE M 411.1A, *Safety Functions, Responsibilities and Authorities Manual*, DOE P 450.5, *Line Environment, Safety, and Health Oversight*, and DOE O 224.1, *Contractor Performance Based Business Management Process*.

III. Results

A. General

- 1) General operations: The facility's general housekeeping was maintained, appropriate warning signs inside the facility were established, the eye wash/emergency showers were present and located where they would most likely be used, spill kits were available for use and fire protection equipment was clearly marked and accessible. The personal protective equipment was present and appropriately staged. Radiation survey maps were current. Prior to the facility tour, visitor safety requirements and emergency response expectations were viewed on a video tape. No issues were found.
- 2) Inspections: There was a written facility inspection plan with specified frequencies. Evidence was present that indicated the daily operator rounds, weekly/monthly/quarterly health and safety inspections and annual uninterruptible power supply inspections were performed and documented as required. Documents reviewed:
 - POP-30-001, *Outside Operator Rounds*.
 - POP-60K-005, *Inspect Waste Management Areas*.
 - WMP-200, Section 1.13, *Health and Safety Self-Inspection Program*No issues were found.

B. Specific

- 1) Records: The facility records of the information related to the waste treatment operations were reviewed. The waste profile sheets and the waste acceptance checklists are retained at the Liquid Waste Processing Facilities (LWPF) Records Control Center per WMH-331, Section 3.11. All other records pertaining to the waste analysis, inspections, waste receipt, waste handling, and waste shipping were acceptable. No issues were found.
- 2) Procedures: Procedures reviewed for the ETF are written as part of the FHI LWPF program. Procedures covering waste receiving, treatment operations, drum handling, drum storage and designation of waste storage areas were up-to-date and readily accessible. Procedures reviewed were:
 - a) POP-30-001, *ETF Control Room, MTT, STT, Outside Operator Rounds*
 - b) POP-60K-001, *Operate Waste Storage Areas*
 - c) POP-60K-005, *Inspect Waste Management Areas*
 - d) POP-60K-006, *Accept Waste Containers From Other Facilities*
 - e) POP-65D-001, *Ship Waste*
 - f) POP-65D-003, *Package Waste*No issues were found.

- 3) **Facility Contingency Plan:** The facility's emergency preparedness plan was established and fire pull boxes, fire extinguishers, emergency exit signs and emergency egress maps in the correct locations. The facility uses a public announcement system in lieu of sirens for emergency notifications. The on-shift duty operators remain in constant communication with the control room via radios. No issues were found.

- 4) **Personnel Training and Qualifications:** Training records indicated that the training coordinator was assigned, that all of the applicable courses were listed, and all personnel requiring training in their particular areas were current as required in the permit. The written training plan had the necessary content, training frequencies and training techniques, but was very difficult to follow. Job descriptions were matched to the training requirements covering requisite skills, education, qualifications and duties for each position. It was clear that the training was relevant to the positions. A finding was identified when the team could not find a location where the requirement for the six month initial training time limit was directly tied to the facility specific procedures.

According to plant staff, a site-wide project is now in the process of being confirmed with the Washington Department of Ecology to upgrade the Dangerous Waste Training Plan. This upgrade would tailor the training more to the actual work done by an individual rather than to job title and, in addition, the training would be conducted at their facility.

- 5) **Waste Analysis Plan:** The waste profile sheets characterized the waste prior to shipment and contained the required information pertaining to the waste generator, the receiver, waste description, container information (if applicable) and waste quantities. Waste acceptance checklists were used to document preparations for waste receipt. The facility's use of a waste-planning checklist to aid the workers in reviewing waste minimization and waste disposal requirements is a commendable practice. These checklists are part of every work package that has the potential to generate waste. The liquid waste processing and routing of effluent through the 242-A Evaporator to the LERF and eventually the ETF is controlled by the LWPF program. The LWPF utilizes the same people to operate the three separate facilities. Reviewed WMH-331, Section 3.11. No issues were found.

- 6) **Operating Logs and Log-keeping Practices:** Logbooks were in order. The necessary entries were made in the appropriate logbook whenever waste was received, processed, moved, stored or shipped. The logbooks also recorded safety and process equipment inspections. In an interview with a Nuclear Control Room Operator (NCO), the daily checklist was reviewed. The NCO maintained radio contact with two roving NCOs doing equipment inspection rounds and a work crew in the facility. Several computer terminals report facility processing status. No issues were found.

- 7) **Facility Security:** The facility has posted the correct warning signs on the outside of the facility and at all entry points. Doors to secured areas were locked. The main treatment and storage areas were posted as radiological buffer areas and entry required processing through the Access Control/Entry System (ACES) station. The appropriate Radiological Work Permit (RWP) was read and signed by all members of the assessment group prior to entering the radiological areas. Hardhats and safety glasses were provided to the visitors. No issues were found.

- 8) **Self and Independent Assessments:** The facility self-assessment program contained in the Administration Manual, WMP-200, Section 1.13, was reviewed. Every month, each Facility Manager and the Facility Corrective Action Management Coordinator meet with the Company Management Assessments Director as well as the Vice Presidents for Operations and Environmental, Safety and Health, and Quality Assurance to review status of deficiencies, discuss corrective action commitments and develop company level assistance, where appropriate. The attention and time that facility and senior company management provide to the status and correction of identified deficiencies ensure a continuing awareness of facility conditions and serve as a catalyst for continuing improvement.

The Facility Evaluation Board (FEB) last completed an independent assessment in September 1998 as a follow-up to a previous assessment done in August 1997. There were no recurring issues from the 1997 FEB Assessment. There were no discrepancies in the area of Clean Air Act, Emergency Planning and Community Right to Know Act, National Environmental Protection Act, and Packaging and Transportation.

Since the 1998 FEB assessment, the facility Dangerous Waste Training Plan has been implemented. Deficiencies noted with the documentation of Facility Training Matrix requirements were resolved.

The team noted that within the past year there have been no documented DOE oversight activities by either Facility Representatives or by the mission element. Facility Representative Program staff told the team that this was due to the low risk and hazard associated with the facility, and was therefore, not included in base coverage. They also noted that this was consistent with DOE-STD-1063-2000 guidelines.

IV. Findings and Observations

A. Finding A&E-00-ASS-070-001 – Training.

Requirements: WAC-173-303-330(1)(c) states, "The training program must be completed: (ii) Within six months after their employment at or assignment to the facility, or to a new position at the facility, whichever is later."

Permit Application Part B states, Section 5.0, reads, "Personnel new to LWPF, or changing positions within LWPF, complete the required dangerous waste training within six months of the assignment."

Discussion: The facility specific procedures do not contain the requirement for training completion within six months.

B. No observations

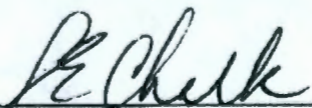
Requirements: N/A

Discussion: N/A

V. Personnel Interviewed

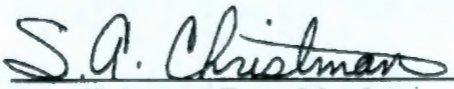
Roger Szelmeczka, Environmental Compliance Officer
Mark Bowman, RCRA Inspection Program
Charles Skogley, FHI, Dangerous waste training
Don Flyckt, FHI Operations Manager
Lisa Ingram, FHI Nuclear Control Room Operator
Greg Millward, Self-Assessments, Corrective Actions, Occurrence Reports

VI. Signatures



S.E. Chalk, Assessment Team Leader

10/6/2000
Date



S.A. Christman, Team Member

10/6/2000
Date