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Prepared by: _____ 3/7/2002

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EXECUTIVE SUMMARY

The U.S. Department of Energy, Richland Operations Office (RL), Analysis and Evaluation Division (A&E) performed an environmental regulations compliance assessment at the Waste Encapsulation and Storage Facility (WESF) during the week of December 17, 2001. 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 and storage and disposal of mixed waste.

An entrance meeting was conducted on December 17, 2001, at the Fluor Hanford, Inc. (FHI) offices at MO-400 in the 200 East Area. The A&E assessment team, the FHI points of contact, and subject matter experts attended the meeting. The assessment schedule and the areas to be assessed were discussed. An exit meeting was held February 7, 2002, at MO-400.

The assessment concluded no findings and one observation. This assessment is rated as "green" - generally meets requirements. The facility is considered adequate for the continued stewardship of safe, compliant, and cost-effective management of Hanford's cesium and strontium capsule inventory.

The facility's management and operations personnel demonstrated a commitment to working safely and meeting DOE expectations by providing quality service to the Hanford Site.

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1.0 INTRODUCTION AND SCOPE

1.1. BACKGROUND

The WESF is permitted as an "Interim Status" treatment, storage and disposal (TSD) unit in the current RCRA permit. WESF maintains the Hanford inventory of cesium and strontium capsules. The cesium and strontium capsules are held for possible future productive use by others or the capsules may be turned over to the High Level Waste Disposal Program by 2017. After disposition of the cesium and strontium capsules, the facility will be transitioned to a surveillance and maintenance configuration for the orderly turnover to the surplus facilities program. The TSD unit at WESF consists of two portions:

- The storage pools which holds cesium and strontium capsules.
- Seven hot cells, two of which are still in an active status to support potential future handling of the capsules.

Associated temporary storage areas include a less than (<) 90 day dangerous waste storage area, a satellite accumulation area (SAA) for paint waste, and a regulated maintenance waste area.

The facility footprint includes the following:

211BA	WESF Storage Building
225B	Waste Encapsulation and Storage Facility
225BA	K1 Filter Building
225BB	K3 Filter Pit
225BC	Compressor Building
225BD	Waste Monitoring and Sample Building
225BE	Maintenance Building
225BF	Air Dryer (225BC Annex)
225BG	Closed Loop Cooling System Building
272B	Operations/Storage Building
272BA	Maintenance and Material Storage Building
272BB	Tool Crib
282B	Emergency Water Pump House (South)
282BA	Emergency Water Pump House (North)
296B10	WESF Stack
225B-DG-1	Diesel Generator
225BG-GEN-1	Closed Loop Cooling System Emergency Generator
294B	Backflow Preventer Building
MO029	Office Areas
MO232	Office Areas, Training Trailer
MO312	Laundry Storage

MO400	Office Areas
MO408	Office Areas
MO444	Insulator Shop
MO446	Paint Shop

1.2. ASSESSMENT

This assessment covers the permittee's program for compliance with the RCRA permit requirements pertaining to the receipt, handling, storage, and treatment of mixed waste at the facility. The purpose of this assessment was to:

- Evaluate the facility for compliance with the Hanford Facility RCRA Permit Number WA7890008967.
- 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);
- Evaluate the facility for compliance with RCRA; and
- Provide information for DOE's Annual LDR Report (HFFACO Milestone M-26-01)."

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

2.0 METHODS

An assessment entry meeting was held at MO-400 in the 200 East area on December 17, 2001. 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 assessment was conducted using the process of A&E procedure A&E-01, "Evaluation of Contractor Performance in Meeting Waste Management Storage Requirements."

The method used for this assessment was a combination of document review and interviews. The inside and outside of the facility was inspected and regulatory documents were reviewed to develop the areas of primary focus for the assessment. The documents used to develop the checklist for the assessment included the Hanford Facility RCRA Permit Number WA7890008967, DOE/RL-90-24, Revision 7, "Hanford Facility Dangerous Waste Permit Application," WAC 173-303, 40 CFR, RL Facility Representative (FR) surveillances, contractor self-assessments, and independent assessments.

This assessment focused on the following specific areas as applicable to WESF:

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

The RL 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' management and independent assessment program and fulfills an important part of the feedback and improvement function of the RL Integrated Management System. 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."

2.1. Assessment Team Members

Steve Chalk of the RL A&E division led the assessment and Dave Roha was a team member.

3.0 RESULTS

3.1 GENERAL

1) General operations (Permit Section II.O): The facility's general housekeeping was maintained. There was no evidence of discarded waste containers, remains of labels or residual waste equipment, or unpermitted waste discharges. Documents reviewed:

   - Weekly Surveillance Data Sheets.

   Facility spaces inspected:

211BA	WESF Storage Building: Housekeeping was good; no identified mixed waste or potential waste materials were noted in area. Work area included an electrical shop, and a storage for chemicals used

	for the Closed Loop Cooling system. Chemicals were stored on a spill control pallet.
225B	WESF: Housekeeping was good; no identified mixed waste or potential waste materials were noted in area. The cesium and strontium capsule storage was in the pool cell area. The building included an HVAC room, two change rooms, offices, a truck port, pool cell monitoring room, and an operating gallery to facilitate work inside of the hot cells.
225BA	K1 Filter Building: Contains operating systems; housekeeping was good; no identified mixed waste or potential waste materials were noted in area.
225BB	K3 Filter Pit: Not readily accessible; contains operating systems shield cover installed and bolted.
225BC	Compressor Building: Housekeeping was good; contains compressed air piping and compressor operating systems; no identified mixed waste or potential waste materials were noted in area.
225BD	Waste Monitoring and Sample Building: Contains operating systems; housekeeping was good; no identified mixed waste or potential waste materials were noted in area. This facility provides sampling for tank 100, which collects liquids from 225B sump drains. Tank 100 in located in a vault adjacent to the sampling facility.
225BE	Maintenance Building: Housekeeping was good; no identified mixed waste or potential waste materials were noted in area.
225BF	Air Dryer (225BC Annex): Contains operating systems; housekeeping was good; no identified mixed waste or potential waste materials were noted in area.
225BG	Closed Loop Cooling System Building: Contains operating systems; housekeeping was good; no identified mixed waste or potential waste materials were noted in area.
272B	Operations/Storage Building: Housekeeping was good; no identified mixed waste or potential waste materials were noted in area.
272BA	Maintenance and Material Storage Building: Housekeeping was good; no identified mixed waste or potential waste materials were noted in area.
272BB	Tool Crib: Housekeeping was good; no identified mixed waste or potential waste materials were noted in area.
282B	Emergency Water Pump House (South) (not inspected, small building containing well pumps)
282BA	Emergency Water Pump House (North) (not inspected, small building containing well pumps)
296B10	WESF Stack: Contains air sampling systems; housekeeping was good; no identified mixed waste or potential waste materials were noted in area.

225B-DG-1	Diesel Generator: The emergency diesel generator (EDG) provides electrical power in case of loss of offsite power. The building contains the EDG and support operating systems; housekeeping was good; no identified mixed waste or potential waste materials were noted in area.
225BG-GEN-1	Closed Loop Cooling System Emergency Generator: Provides electrical power for operation of the Closed Loop Cooling System; housekeeping was good; no identified mixed waste or potential waste materials were noted in area.
294B	Backflow Preventer Building: Contains operating systems; housekeeping was good; no identified mixed waste or potential waste materials were noted in area.
MO029	Office Areas: Housekeeping was good; no identified mixed waste or potential waste materials were noted in area.
MO232	Office Areas, Training Trailer: Housekeeping was good; no identified mixed waste or potential waste materials were noted in area.
MO312	Laundry Storage: Housekeeping was good; no identified mixed waste or potential waste materials were noted in area.
MO400	Office Areas: Housekeeping was good; no identified mixed waste or potential waste materials were noted in area.
MO408	Office Areas: Housekeeping was good; no identified mixed waste or potential waste materials were noted in area.
MO444	Insulator Shop: Housekeeping was good; no identified mixed waste or potential waste materials were noted in area.
MO446	Paint Shop: Housekeeping was good; no identified mixed waste or potential waste materials were noted in area.

No issues were found.

2) Inspections (WAC-173-303-320): There was a written facility inspection plan with specified frequencies. Evidence was present that indicated the periodic operator rounds were performed and documented as required. Documents reviewed:

- Inspection Checklists for < 90 Day Storage PAD, 226B < 90 Day Pad.
- EO-040-001, "Waste Encapsulation and Storage (WESF) Facility, Pool Cell Surveillance."
- EO-040-002, "Waste Encapsulation and Storage (WESF) Facility, Perform General Surveillance."

The assessment team reviewed the previous 6 months of records and identified one inconsistency concerning properly completing a Inspection Checklist for <90 Day Storage Pad, dated November 13, 2001:

- Item 14 was checked "no" without an explanation in the comment section of the checklist or a corrective action documented on the form. A note on the checklist requires that any "no" answers be explained and a corrective action documented on the checklist.

The checklist was reviewed and corrected by Waste Management Project (WMP) staff during the assessment. The assessment team noted that the checklist form had changed several times over the previous 6 month time reviewed, which may have contributed to the error. In addition, while observing a Nuclear Chemical Operator (NCO) performing a checklist inspection of a SAA, he appeared to be unfamiliar with the checklist.

The assessment reviewed the process used to track corrective actions resulting from deficiencies identified during routine inspections. The facility uses a "WESF tickler file" to track those minor items that do not meet criteria for processing by the Deficiency Tracking System (DTS).

3.2 SPECIFIC

1) Facility Records (WAC-173-303-380): The facility records of the data related to the inspections were reviewed at the Unit Specific Operating Records area in MO-400, 200E. Other documents reviewed:

   - EO-040-001, "Waste Encapsulation and Storage (WESF) Facility, Pool Cell Surveillance."
   - Inspection Checklists for < 90 Day Storage PAD, 226B < 90 Day Pad.
   - Facility operations logbook.

   No issues were found.

2) Procedures (WAC-173-303-320 (1)(2)): Procedures for WESF covering waste handling and facility maintenance were reviewed. Documents reviewed:

   - EO-100-017, "Waste Encapsulation and Storage (WESF) Facility, Handle Low Level Waste at Egress Stations."
   - EO-100-018, "Waste Encapsulation and Storage (WESF) Facility, Package and Ship Low Level Waste."
   - EO-100-019, "Waste Encapsulation and Storage (WESF) Facility, Package and Ship Mixed Waste."
   - EO-100-030, "Waste Encapsulation and Storage (WESF) Facility, Package and Ship Compactible Low Level Waste."
   - EO-100-032, "Waste Encapsulation and Storage (WESF) Facility, Packaging Low Level Waste in Canyon."
   - 2C18082, "Function Test for the WESF Stack Radiation Monitor System 296-B10."
   - 2C18009, "Drexelbrook, Model 406-6000, On-Off Control K-3 Filter Sump Discharge Leak Detector."

No issues were found.

3) Facility Contingency Plan (WAC 173-303-340 & 350): The facility's emergency preparedness plan was established. Document reviewed:

   - HNF-IP-0263-WESF, Revision 2, "Building Emergency Plan for Waste Encapsulation and Storage Facility (WESF)."

   No issues were found.

4) Personnel Training and Qualifications (WAC-173-303-330): Training records indicated that the training coordinator was assigned, that applicable courses were listed, and 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. 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. Documents reviewed:

   - RCP-8884, "River Corridor Project, 200 Area Deactivation Project, Dangerous Waste Training Plan (DWTP)."
   - Training records for two NCOs that had completed recent facility quarterly inspections.

   No issues found.

5) Waste Analysis Plan (WAP) (WAC-173-303-300): Document reviewed:

   - HNF-7342, Revision 0, "Waste Encapsulation and Storage Facility Waste Analysis Plan."

   No issues found.

6) Operating Logs and Log-keeping Practices (WAC-173-303-320 (2)): The operations log that is used for the WESF was reviewed. The logbook appeared to be in order and all of the entries were clear and concise. The proper initials and management reviews were present. All cross-outs were correctly dated and initialed.

   No issues were found.

7) Facility Security (WAC-173-303-310): Facility surveillance sheets were reviewed. The facility has posted the correct warning signs on the outside of the facility and at all entry points.

   No issues were found.

8) Self (management and independent) Assessments (DOE P 450.5): The assessment team identified that there were three self (management) assessments performed by the contractor during the previous 12 months. The contractor deficiency evaluation group assessed the results from the assessments, determined the root causes and specified the corrective actions.

   The team noted that within the past year there has been 16 independent DOE oversight activities by the FR, although the surveillances were not directly related to Land Disposal Restriction oversight activities. The FR surveillances resulted in 11 findings and 14 observations. A&E also performed a surveillance on environmental, quality assurance, and nuclear safety activities in 2001.

   No issues were found.

4.0 FINDINGS AND OBSERVATIONS

4.1 NO FINDINGS WERE IDENTIFIED

4.2 OBSERVATION

4.2.1 Observation A&E-SEC-02-001-O-001- Administrative error on <90 Day Storage Pad checklist.

The assessment team reviewed the previous 6 months of records and identified one inconsistency concerning proper completion of an Inspection Checklist for <90 Day Storage Pad, dated November 13, 2001:

- Item 14 was checked "no" without an explanation in the comment section of the checklist or a corrective action documented on the form. A note on the checklist requires that any "no" answers be explained and a corrective action documented on the checklist.

The checklist was reviewed and corrected by WMP staff during the assessment. The assessment team noted that the checklist form had changed several times over the previous 6 month time reviewed, which may have contributed to the error. In addition, while observing a NCO performing a checklist inspection of a SAA, he appeared to be unfamiliar with the checklist.

The assessment team recommends that checklist procedure changes be reviewed with staff to potentially reduce future administrative errors and expedite work.

5.0 PERSONNEL CONTACTED

F. M. Simmons, FHI
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G.L. Bash, FHI
R. Sheppard, FHI
Peg Robinson, Nuc. Safety Compliance Office/FHI