4A WA8967 4A 9/24/200

EPA Region 10
RCRA Compliance Inspection Report
Section A

FILE COPY

Inspection Information

Handler Name: US Department of Energy Hanford Facility

Handler ID Number: WA7890008967

Inspection Date: September 24&25, 2008

Inspection Type: CEI

Inspection Team: Jack Boller, EPA
Sylvia Burges, EPA
Dave Bartus, EPA
Eric Van Mason, Ecology
Steve Szendre, Ecology

Site Contact Information

Site Contact Name/Title: Cliff Clark
Site Location Address: Hanford Reservation, Richland, WA
Site Mailing Address: PO Box 550 Richland, WA 99352
Site Phone Number: 509 376-6880
Fax Number:

Report Information

Date Report Completed: October 6, 2008
Report Author Name (print): Jack Boller

Report Author Signature: Jack Boller

*See Section B for database information and narrative reflecting these changes.

US Department of Energy Hanford Facility
Inspection Report
Section B: General facility Information

Site Location:

The facility is located on a large tract of mostly undisturbed land along the Columbia River north of Richland, Washington.

Mailing Address:

The mailing address was confirmed during the inspection and is listed in Section A of this report.

Owner/Operator Information

The facility is owned by the United States Government. The facility is occupied and operated by the US Department of Energy and its contractors.

Regulatory Status:

According to RCRAinfo the facility has a final status RCRA permit issued by the Washington State Department of Ecology for treatment, storage and disposal of hazardous waste. The facility is also a large quantity generator of hazardous waste and has been designated as a RCRA significant non-complier for at least the last ten years.

Section C: Facility History

The facility consists of nearly six hundred square miles of undisturbed steppe brush desert land bounded on the north and east by the Columbia River and on the west by Rattlesnake Mountain. Within the boundary of the facility are several built up areas that were formerly used for the production of weapons grade special nuclear materials. All of the production activities have ceased and the facility is currently in the process of clean-up and decommissioning. There are also several laboratory units operating at the facility. Wastes are generated from laboratory and site clean-up operations. The clean-up activities generating waste include, but aren't limited to, building demolition and removal of waste from historic waste burial grounds and tank systems. Waste being generated onsite is accumulated in several satellite accumulation areas and <90 day accumulation areas located across the facility. Regulated hazardous wastes are stored on site in numerous tanks and container storage units, treated on site or at offsite facilities, and/or disposed of in land disposal units onsite.

Section D: Inspection Description

Purpose: The facility was inspected in accordance with the RCRA permit , applicable sections of WAC 173-303, 40 C.F.R. Part 262 for compliance with hazardous waste generator standards, 40 C.F.R. Part 279 for compliance with used oil management standards and 40 C.F.R. Part 273 for compliance with universal waste management standards.

Inspection: The inspectors arrived at the central waste complex (CWC) unit on the Hanford facility at 9:00 am on September 24, 2008. The weather at the time of the inspection was dry and mild. We entered the CWC offices and moved to a conference room where we were met by several representatives of contractors and DOE. An attendance list was routed and is attached to this report. Mr. Brett Barnes was the lead for the contractors. We showed our credentials and explained that we were there to conduct a hazardous waste inspection. I stated that I wanted to look at the storage units and the mixed waste burial ground and that we would be taking photos.

We asked about the unit operations. Mr. Barnes explained that the unit consists of 17 large buildings and an outdoor pad used for storing low level radioactive waste and mixed low level

trans-uranic (TRU) retrieval project and is from onsite generation points. He said that there is a small amount of waste that comes from offsite. Waste is held until it can be sent for appropriate treatment.

I asked about the permit status of the CWC unit. Mr. Barnes stated that the facility was in interim status and was not a final status unit. He said that their operating procedures were consistent with the state equivalent of 40 C.F.R. Part 265 standards for interim status facilities. Since the state's rules don't allow for interim status units at a final permit status facility it is difficult to determine which, if any, operating standards apply.

We began a tour of the CWC facility. Our first stop was building 2401-W. We observed that it was being used for material storage only. No waste was observed in the building. Mr. Barnes explained that the building was listed in the permit as a hazardous waste storage unit but was currently not used for waste storage. He said a closure plan was developed in 1998 but was never implemented and the unit had not gone through RCRA closure.

We moved to a mixed waste storage building 2403-WD. Inside of it we observed approximately 30 metal storage containers labeled as flammable alkali metals. Mr. Barnes said that they contained sodium residue in piping and equipment. He said that the sodium had been inerted. He said that the fire control system was a dry pipe system which sounded an alarm at the onsite fire department.

Our next stop was a new outdoor storage pad unit west of the buildings. It consisted of a fenced in, large gravel pad that had been graded to appear level. Mr. Barnes stated that the pad was 10 acres in size and was included in the permit. We observed that there was no secondary containment or storm water controls for the unit.

On the south end of the pad we observed approximately 37 metal burial boxes. Mr. Barnes stated that the boxes had been removed from the 218W3A burial ground site. He said that the hazardous waste designation was based on process knowledge from old records of what was originally placed in the boxes. He said that it was all post 1970 waste. We asked about permit standards for the unit. Mr. Barnes stated that written operating procedures for the unit incorporated permit standards.

To the south of the gate on the east side of the pad we observed several wooden crates and metal burial boxes that had labels on them indicating that they contained waste. The containers were outside of the fence and not on the pad. Ms. Burges inquired as to why they were not inside of the storage pad unit and was told that it was difficult to move them into the unit due to their size and weight.

We continued the inspection by walking between the two lines of storage buildings. We randomly selected building 2402-W7 to enter. We observed that there were over 100 drums of RCRA mixed waste in the building. We did not observe any waste management issues in this building.

We moved on to an outdoor storage pad east of the buildings. Mr. Barnes explained that it had been used for mixed waste storage but had not held any waste for 10 years. We observed that it was being used to store empty pallets. We also observed that the storm water collection system for the unit drained to an unlined swale. No one in the group knew if it was under a discharge permit.

On our way back to the office we looked in building 2402-WD. We observed 24 large containers that Mr. Barnes said contained TRU waste that was not RCRA mixed waste.

At this point we broke for lunch.

Following lunch we visited mixed waste burial trenches 31 and 34. South of the trenches we observed a storage pad containing several burial boxes. According to the labels they were all non-RCRA low level waste.

We asked about the status of the trenches. Mr. Barnes indicated that they operate under the permit as interim status dangerous waste landfills. He said that they are lined and have leachate collection systems. We observed that both trenches contained various types of containers that Mr. Barnes said contained RCRA regulated mixed waste. Mr. Barnes explained that there is a sump in each trench that collects leachate. He stated that the sump is pumped to a 90 day holding tank that is pumped to a tank truck. The tank truck then takes the leachate to the on site Effluent Treatment Facility for treatment prior to discharge under a permit. We observed the tank truck sitting on a pad next to the 90 day tank. The tank truck was not labeled to indicate if the tank truck was empty or not.

We went back to the office and conducted a record review. We reviewed manifests, training records and inspection logs. No concerns were identified. After a short out-briefing we concluded the inspection and left the facility at 3:30 pm.

On September 25 we returned to the facility to inspect the <90 day accumulation area at building 616. We arrived at the site at 9:00 am. We were met by Toni Faust and several other representatives of the DOE contractors. An attendance list was prepared and is attached to this report.

We moved to a meeting room and began the inspection. Ms. Faust explained that the 616 unit serves as a <90 day accumulation area for hazardous waste generated at the tank farms, WTP, and the 222-S laboratory.

We conducted a tour of the area. We observed that there were several boxes of fluorescent light tubes that were not labeled. Ms. Faust explained that they were managed as universal waste but under a written agreement with Ecology they did not have to be labeled until they reached the central recycling center on the Hanford facility. According to the agreement a generator site only needs to put a "held for recycling" sign up and they can accumulate recyclable waste without making any waste determination and without meeting any management standards for the waste.

We also observed a container of aerosol cans that were being held for recycling and it was not labeled. The 616 personnel stated that all recyclables are shipped to the recycling center within 90 days of receipt at 616.

All of the containers of regulated hazardous waste that we observed inside the 616 building appeared to be properly labeled and none of them had start dates more than 90 days old.

Outside of the building in the north pad there were several containers that were labeled as low level mixed waste. At least two of them had faded labels and the accumulation start dates were not readable. On the west side of the building we observed several large metal storage boxes. They contained boxes of fluorescent tubes held for recycling and lead/acid batteries. The batteries were in unlabeled wooden boxes which would leak if acid were released in them. The boxes of tubes were not labeled.

We returned to the office to conduct a file review. Most of the records were at another location on the facility so we asked them to send us copies of inspection reports, training records, and manifests. We concluded the inspection and left at 11:30 am.

We received the copies of records on October 3. I reviewed them and didn't find any compliance issues.

Photos of the storage pad on the west side of CWC.

North end of pad.

West center of pad.

Recovered burial boxes of hazardous waste on the west pad at CWC. Shows typical labeling.

Containers in 2407-W7.

Containers in 2402-W7.

Typical labeling on containers in 2402-W7.

Typical signage on doors of CWC storage buildings.

East side storage pad at CWC. Shows storm water trench in the center of the pad.

Storm water collection sump at the north end of the past storage pad.

TRU waste containers in building 2402-WD at CWC.

Low-level waste on the storage pad at trenches 31 and 34.

Containers of waste staged for placement into trenches 31 and 34.

Labeling on containers staged for placement in trenches 31 and 34.

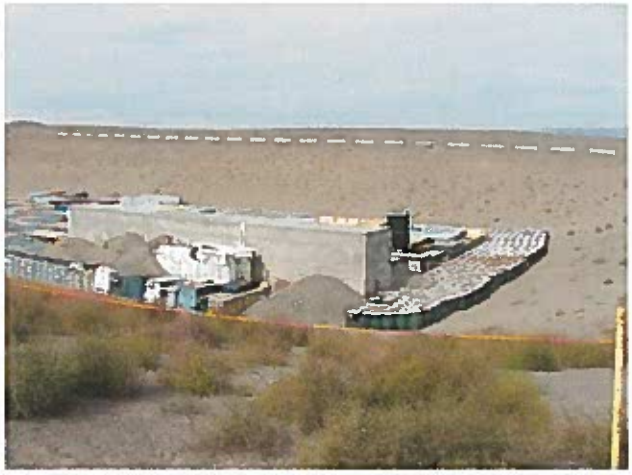
View east from the west side pad showing containers of waste out side of the storage unit.

SW corner of pad.

SE corner of pad.

Recovered burial boxes of hazardous waste on the west storage pad at CWC.

Mixed waste trench 31.



Mixed waste trench 34.

Leachate collection tank for trenches 31 and 34.

Tank truck sitting on the loading pad at the leachate Collection tank for trenches 31 and 34.

Boxes containing spent fluorescent tubes at the 616 building.

Recyclables collection area at the 616 building.

Some of the drums of hazardous waste in the <90 day accumulation areas in building 616.

Recyclables being collected in building 616.

Outdoor accumulation area at building 616.

Drums in the out door accumulation area at 616.

Storage boxes holding recyclables outside the 616 building.

Out door waste accumulation area at 616.

Spent lead/acid batteries held for recycling in a wooden box at in a metal storage building at 616.

Lead/acid battery storage box.

Fluorescent tubes being collected in the metal storage box outside the 616 building.

Summary: The inspection identified several significant compliance issues. A key issue is the permit status of the Central Waste Complex (CWC) storage units. At the time of the inspection, the inspection team was told by representatives of CWC that the units were operating under interim status permit standards. There is a final status permit in place for the Hanford facility, which includes CWC. The state regulations do not allow facilities with a final RCRA permit to operate units under interim status.

A large outdoor container storage pad at the CWC does not have secondary containment or storm water controls which are required by the state regulations.

Universal waste light tubes and batteries were being collected with out being properly labeled. This is allowed under a recycling agreement the facility has with Ecology. It is not allowed under the regulations.