

## NUCLEAR WASTE PROGRAM

## DANGEROUS WASTE COMPLIANCE INSPECTION REPORT

332 Storage Facility - DRAFT - 08/14/96 3:34:47 PM

I. Introductory Information:

**Name and Address of Owner:** ID Number: WA7890008967  
U.S. Department of Energy (USDOE)  
Richland Operations Office  
P.O. Box 550  
Richland, WA 99352

**Operator:** Day and Time of Inspection(s):  
Pacific Northwest National Laboratories August 8, 1996  
P.O. Box 999  
Richland, WA 99352

**Phone Number and Contact:** Date of Inspection Report:  
Brian Day 376-3835 August 14, 1996

**Type of and Reason for Inspection:** This inspection was conducted to support a request from USDOE and PNNL for procedural closure of the 332 Storage Facility per paragraph 6.3.3 of the Hanford Federal Facility Agreement and Consent Order (HFFACO)

**Report Prepared by:** Steve Moore

**Inspection Conducted by:** Steve Moore  
Greta Davis  
Jeanne Wallace

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Steve Moore, Inspection Lead

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Greta Davis, Inspection Support, 332/324 Sodium Pilot Plant Sub-Project Manager

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Jeanne Wallace, Inspection Support, 300 Area Project Manager

Personnel contacted during this inspection include:

Brian Day	PNNL	376-3835
Gene Grohs	PNNL	376-7759
Shelley Warren	PNNL	376-9350
Jeff Long	PNNL	376-8795
Harold Tilden	PNNL	376-0499
Ellen Mattlin	USDOE-RL	376-2385

## 2. Description of Facility, Wastes Generated

The 332 Storage facility (332) is located on the north side of the 300 Area on the Hanford Nuclear Reservation. 332 was used to support management of hazardous waste generated in 300 Area buildings. The facility was constructed to allow storage of flammable and other dangerous waste. 300 Area generated dangerous waste (DW) was accumulated at 332 until April 1989. A Part A permit application was submitted for the facility on May 19, 1988. (Attachment 1)

## 3. Background and Description of Inspection

On June 22, 1989, USDOE submitted a request to the Department of Ecology (Ecology) for withdrawal of the 332 part A permit application (Attachment 2) as required by HFFACO milestone M-20-45. On August 17, 1989, Ecology sent a reply letter to USDOE approving the request for withdrawal of the 332 Part A (Attachment 3). The Ecology letter stated the formal decision making process of WAC 173-303-840 would be used. The decision making process was not initiated and therefore the withdrawal of the 332 Part A permit was not completed.

This inspection was conducted to support a resumption of the procedural closure effort started in 1989. The inspection is an initial step which will result in a recommendation to the Greta Davis, Ecology Sub-Project Manager (SPM) for 332. Ecology will use this report and subsequent recommendation to support whether to proceed with the procedural closure process.

Greta, Jeanne, and I arrived at the 324 building for an introductory briefing with USDOE and PNNL staff. Mr. Day, Mr. Weaver, and Ms. Mattlin attended the introductory briefing. I explained the purpose of the inspection and the group agreed to a general schedule for the inspection. The inspection would include a facility walkdown inspection, interviews with facility staff, an initial record review, and a close-out conference. I clarified this was not a typical compliance inspection and no compliance follow-up documentation was anticipated. Follow-up discussion and correspondence related to the procedural closure would be through the Project Managers.

Following the introductory briefing and some preliminary discussions the inspection team conducted a walk-through inspection of the 324 Sodium Treatment Plant (324 Na) in room 146 of the 324 building. Details of the 324 Na walkdown are in a separate inspection report for that facility. Mr. Weaver left the inspection team after the 324 Na walk-through.

### 332 Facility Walk-through:

The inspection team arrived at the 332 building at 11:00 after completing the 324 Na walk-through. We were met by Mr. Grohs and Ms. Warren. We inspected the facility and found that no DW is currently managed there. We did not identify any obvious signs of DW either inside the building, outside the building on the storage pad/loadout pad, or in the sump located outside the south end of the building.

We talked with Mr. Grohs about the historical operations at 332. He said the facility stopped managing DW in 1989. He could not recall any releases of DW from the facility but there were instances where waste was released inside the facility, primarily due to temperature causing the waste to expand, but all these releases were contained within the storage lockers used in the building and were cleaned up and the waste properly disposed of. I observed a plate installed in the sump floor drain. Mr. Grohs said the plate was installed in about 1989 to ensure no DW inadvertently drained to the sump. The drain and sump are primarily used to help manage water that sometimes enters the building from snow melt runoff from the outside storage pad. The sump has a "heal" of propylene glycol maintained in it to ensure the sump pump does not freeze in the winter.

We talked with Ms. Warren about the inspection log she brought with her. The log book included weekly inspection records from when the facility was used for DW accumulation. Between March and April of 1989 entries in the log book reflect the last shipments of DW from 332 (Attachment 4). I requested copies of these log sheets and the shipping records for these last waste shipments. Mr. Grohs said the records were still available at the 305-B facility and they would try to obtain them for us before the end of the inspection. We thanked Mr. Grohs and Ms. Warren for their assistance and invited them to participate in the inspection close-out conference tentatively planned for 3:30 that afternoon.

After completion of the facility walk-through inspections, Jeanne and Ms. Mattlin left the inspection for prior commitments. At 11:30, Greta, Mr. Day, and I arrived at the 337 building to begin a record review for both the 332 and 324 Na facilities.

Mr. Day had arranged a significant amount of historical documentation on the two facilities, including USDOE and contractor external and internal correspondence, operating logs, personal files of staff who were historically involved with the facilities, and information requested by Ecology during a preliminary inspection of these facilities on June 13, 1996 and during 300 Area Project Manager meeting discussions.

Greta and I reviewed the provided records and prepared for a close-out conference during the afternoon. Records received at the end of the inspection and additional records or information requested during the closeout conference were documented on Ecology "Receipt for Samples and Documents" forms (Attachment 5). USDOE provided a response to our information request that included most requested information on August 12, 1996 (Attachment 6).

Closeout Conference: After initial review of the provided documents, Greta and I provided PNNL staff a detailed closeout meeting. We reviewed each document reviewed and identified concerns or questions we had. Any that were not adequately addressed were included on a request for additional information described above. (Attachment 5) Concerning 332, we informed PNNL we had not identified anything that would preclude resuming the procedural closure process and we would expect to do so after receipt of USDOE/PNNL response to the remaining outstanding information requests and the "recertification" requested by Greta and Jeanne during a 300 Area Project Managers meeting.

### 332 record review:

Records reviewed during the inspection included the operational procedures (Contingency Plan, Training Plan, Inspection Plan, etc) used during the time the facility operated as an accumulation area, weekly inspection log, correspondence files provided by PNNL. Additional records reviewed included historical EPA and Ecology inspection reports and Ecology files and the 332 Part A.

Operational procedures: Generally, the plans looked to be complete and compliant with requirements for generator (<90 day accumulation) and interim status facility operations. Ecology and EPA inspections conducted between 1984 and 1989 show the facility was visited on several occasions and the quality of these documents improved as USDOE and its contractors worked to come into compliance with DW requirements. Because the facility has not managed DW since 1989, specific areas where the documents would need to be upgraded to be compliant with 1996 DW requirements were not identified during the review or inspection closeout.

Weekly inspection logs: The inspection log book provided an overview of conditions at 332 during its operation. Inspections documented deficient conditions and subsequent correction of deficiencies. Like the operational procedures, the inspection program at 332 improved through the mid 1980's and the later inspection logs seemed to address all DW requirements. The inspection logs did not include any documentation of releases from the facility. They did document a few spills within the facility which were subsequently cleaned up. The logs also contained numerous references to difficulties facility staff had during both hot and cold weather conditions, including the aforementioned pressure related spills from containers and snow melt runoff.

USDOE/PNNL correspondence files: The review of correspondence included documents leading up to the USDOE request for withdrawal of the 332 Part A and Ecology's reply. Internal decision documents indicated USDOE and PNNL used 332 to accumulate 300 Area generated wastes and that the submittal of the Part A was a contingency action to ensure adequate capacity during 325 Facility upgrades.

EPA/Ecology Inspections: The 332 facility was inspected on at least 5 occasions between 1984 and 1989 during inspections of the Hanford facility. The June 11-14, 1985 site inspection noted deficiencies including exceeding 90 day accumulation limits, inadequate inspection, inadequate contingency planning, and overall compliance with few DW requirements. During the July 14,

1986 inspection, 90 day accumulation performance was improved by 6 containers of "unknown organic" dated January 25, 1984 were identified. During the August 10-13, 1987 inspection 90 day accumulation problems were identified, specifically associated with USDOE/PNNL inability to process samples for designation within the 90 day limit. The August 15, 1988 inspection did not document any DW violations at 332. The August 28, 1989 inspection of Hanford occurred after 332 stopped managing DW and did not report any DW violations at 332. Available inspection records were not clear about what type of compliance follow-up was issued to address facility specific concerns, but because the facility was routinely inspected there is a record of improvement. All of the referenced inspection reports are available in the Kennewick office library compliance files.

During the June 13, 1996 checklist inspection I conducted at 332 no areas of non-compliance were identified. One concern identified was that the facility had technically remained an interim status storage facility, subject to the applicable DW requirements. After Ecology sent the August 17, 1989 letter initially approving the withdrawal of the 332 Part A and USDOE/PNNL stopped operating the building as a 300 Area accumulation unit, DW requirement compliance was not maintained. I did not direct PNNL staff to work towards updating 332 procedures during that inspection close-out. I did inform them Ecology would be taking actions in the near future to resume the procedural closure process started in 1989.

332 Part A permit application and permit withdrawal request: The Part A was submitted to Ecology on May 19, 1988. The Part A reported container storage of up to 1800 gallons of DW with a wide selection of waste codes and types. The request for withdrawal of the permit application was submitted on June 22, 1989 as required by HFFACO milestone M-20-45. The withdrawal request indicated the Part A was submitted as a "protective filing" while waiting for 305-B facility upgrades and that the facility never "purposely" operated as a greater than 90-day storage facility.

#### 4. Attachments

1. Part A permit application dated May 19, 1988
2. Part A permit withdrawal request from R.D. Izatt and T.D. Chikalla to T. Husseman dated June 22, 1989
3. Ecology response to Part A withdrawal request from R. Stanley to R.D. Izatt, R.E. Lerch, and T.D. Chikalla dated August 17, 1989
4. Excerpt of 332 weekly inspection log March to April 1989
5. Ecology Document Request Forms from August 8, 1996 inspection
6. USDOE initial response to Ecology information request dated August 12, 1996
7. Recommendation/Conclusion memo to Greta Davis, 332 Sub-Project Manager, dated August XX, 1996
8. Photograph log of August 8, 1996 332 inspection

#### 5. Summary of Violations

Not applicable to this inspection. Summary of conclusions and recommendations were transmitted to Greta Davis, the 332 Sub-Project Manager (Attachment 7).