0051846

Department of Energy
Richland Operations Office
P.O. Box 550
Richland, Washington 99352

99-EAP-505

OCT 04 1999

Mr. A. B. Stone
300 Area Project Manager
Nuclear Waste Program
State of Washington
Department of Ecology
1315 West Fourth Avenue
Kennewick, Washington 99336

Dear Mr. Stone:

RESPONSE TO STATE OF WASHINGTON DEPARTMENT OF ECOLOGY (ECOLOGY) LETTER REGARDING 324 AND 327 FACILITY WASTE INFORMATION SYSTEM (WIDS) SUB-SITES

References: (1) Ltr., A. B. Stone, Ecology, to D. W. Templeton and J. E. Rasmussen, RL, "327 Building Solid Waste Management Units (SWMUs) Identification in the Waste Information Data System (WIDS)," dtd. July 12, 1999.

2) Ltr., A. B. Stone, Ecology, to D. W. Templeton, RL, "324 Building Solid Waste Management Units (SWMUs) Identification in the Waste Information Data System (WIDS)," dtd. May 17, 1999. 50731

In the referenced letters, Ecology requested that 17 areas within the 324 Building and 19 areas within the 327 Building be included in WIDS as "sub-sites" of each site. A series of discussions were held with the U.S. Department of Energy (DOE), Richland Operations Office (RL) and Ecology on this subject. At one meeting (July 15, 1999) Ecology (Ms. Huckaby), was asked to identify and clarify the 36 areas of concern. The source of information Ecology used to identify the areas was the Facility Vulnerability Assessment (FVA) report for the 324 and 327 Buildings. Additional discussions were held with RL and the Hanford Site Contractors to discuss the term and use of "sub-sites" within WIDS. We offer the following clarification.

The use of sub-sites within WIDS is an administrative tool to compartmentalize and manage waste management unit data such that entries more accurately reflect the current status of the site referenced. This mechanism is used where there is significant value added in doing so. Examples of where this sub-site mechanism has been employed are:

- Waste sites where contamination is limited to discrete areas within the waste management unit boundary. Here the sub-site mechanism has been used to section off and reclassify significant uncontaminated areas within the site boundary, thus reducing the overall footprint of the waste management unit. The result is a more accurate depiction of the current status of the waste management unit.

- Waste sites that are remediated by separate and distinct actions spread over time. Once again, the sub-site mechanism enables the WIDS entry for the waste management unit in question to more accurately reflect the current status.

The WIDS/TPA-MP-14 classification, reclassification procedure is not unto itself a regulatory driver for site characterization. Waste management unit characterization and disposition are always conducted under the applicable regulatory drivers. The WIDS/TPA-MP-14 classification procedure provides for:

- a consistent mechanism for identifying areas of potential concern;
- mechanism for distinguishing areas that present no hazard from areas that do present a hazard;
- capture and preservation of information sufficient to support the prioritization of remediation such that our limited resources may be best utilized; and
- historical preservation of pertinent waste management unit information, from their discovery to their final disposition.

As such, the WIDS fulfills the DOE Richland obligation under the Tri-Party agreement to maintain an accurate inventory of Hanford Waste Management Units as well as serves as a useful management tool for aiding the prioritization of remediation efforts.

It is our position that breaking WIDS sites 300-25 and 300-264 into component parts, and applying the process identified in the Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) procedure (TPA-MP-14) to these sub-components, offers no clear advantage. Such an action will increase the administrative requirements of all involved in the WIDS program.

To address the concern by Ecology, RL will do the following:

1. Building 324 (WIDS site 300-25) – is classified as an accepted site within WIDS. The site was classified in accordance with the Tri-Party Agreement procedure (Tri-Party Agreement MP-14). A milestone has been negotiated through the Tri-Party Agreement (MP-89) to address closure of the treatment, storage, and disposal (TSD) portions of the facility. The 17 areas identified by Ecology will be documented as such; the TSD portion of the facility will be clearly delineated within WIDS and those that lie out of the agreed upon TSD boundary will be expanded on. The information from the FVA will be referenced as a source of data for this site. The activities were completed on September 9, 1999 (See enclosure).

2. Building 327 (WIDS site 300-264) – has been classified as a discovery site within WIDS. The site will undergo the process identified in the Tri-Party Agreement procedure. The 19 areas identified by Ecology will be reviewed in determining the classification for this site. The FVA report will be referenced as a source of data for this site. Site walkdown, records search, and the proposed classification will be completed in October 1999.

RL believes that the resolution presented in this letter addresses Ecology's concerns and is in concert with our intent to reduce administrative costs/burdens at the Hanford Site. It is RL's hope that Ecology will find the resolution acceptable. Since the WIDS process was negotiated and approved via the Tri-Party Agreement, RL requests that future inquiries of this nature be worked through the process outlined in the Tri-Party Agreement.

If you have any questions regarding this letter, please contact Ellen Mattlin at (509) 376-2385.

Sincerely,

James E. Rasmussen, Director
Environmental Assurance, Permits,
and Policy Division

EAP:EMM

Enclosure
WIDS General Summary Report

cc w/encl:
EDMC, H6-08
D. E. Rasmussen, BWHC
J. R. Wilkinson, CTUIR
W. D. Adair, FDH
M. DeLeon, FDH
J. W. Golden, FDH
A. M. Hopkins, FDH
L. J. Olguin, FDH
J. K. Perry, FDH
Environmental Portal, LMSI
P. Sobotta, NPT
M. L. Blazek, ODOE
L. L. Powers, WMH
R. Jim, YN

cc w/o encl:
E. M. Greager, WMH
S. M. Price, FDH
J. M. Steffen, BWHC

Waste Information Data System

General Summary Report

For more information contact the WIDS Hotline at (509) 375-WIDS

Site Code:	300-25	**Site Classification:**	Accepted
Site Names:	300-25, 324 Building		
Site Type:	Laboratory	**Start Date:**	1966
Status:	Inactive	**End Date:**	
Operable Unit:	300-FF-2	**Coordinates:**	
Hanford Area:	300	(E)	594,247.438
		(N)	115,784.750
		Washington State Plane	

Site Description: The 324 Building is a substantial concrete and steel structure. Portions of the Building are covered under a RCRA Closure Plan with on-going closure activities in progress. The 324 Building is divided into four integrated-but-separate primary work areas: the Engineering Development Laboratory-102 (non radioactive) or EDL-102, the Engineering Development Laboratory-146 (radioactive) or EDL-146, the radiochemical engineering cells (REC), and the Shielded Materials Facility (SMF). Additional facilities in the 324 Building include development laboratories, maintenance shops, and service areas. Within the 324 Building are controlled experimentation areas referred to as 'hot cells' with radiation shielding provided by thick concrete walls. To protect against releases of radioactive material from the hot cells to the environment, integral metal liners with sumps (i.e., without drains) were installed in the cells and tank vaults. Confinement of radioactive particulate matter within the shielded cells is provided by a directed air flow through high-efficiency particulate air (HEPA) filter ventilation system. The RCRA Closure Plan covers the REC portion of the building, including the hot cells, low level and high level vault tanks, the airlock and pipe trench. See DOE/RL-96-73, Rev. 1 (3-98) for additional details. In July of 1999, the Washington State Department of Ecology identified the following as areas of concern for this facility: - 324 Shielded Material Facility (SMF) South Cell - 324 Shielded Material Facility (SMF) East Cell - B-Cell (Hot Cell) - A-Cell (Hot Cell) - C-Cell (Hot Cell) - D-Cell (Hot Cell) - Hot Cell Airlock (Hot Cell) - High-Level Vault (4 tanks) - Low-Level Vault (4 tanks) - 324 Process Sewer System (WIDS site 300-15) - 324 Retention Process Sewer System (WIDS site 300-214) - EDL-102 (PNNL Vitrification Pilot) - High Bay (2 tanks with heels) - Room 146 (Fume hood - melter) - Room 3B, 3F (Laboratory and Rad Flume Hood), and Storage Vault - Waste Water Diverter System, Catch Tank and Ion Exchange Tank - HNO3 Bulk Chemical Tank - West Side of Facility. The areas listed above that are within the boundaries of the TSD facility are: - B-Cell (Hot Cell) - A-Cell (Hot Cell) - C-Cell (Hot Cell) - D-Cell (Hot Cell) - Hot Cell Airlock (Hot Cell) - High-Level Vault (4 tanks) - Low-Level Vault (4 tanks).

Location Description: The 324 building is in the central part of the 300 Area, northeast of the 309 Building and immediately east of the 308 Building.

Process Description: The 324 Building was designed and constructed to allow for a high degree of versatility in completing complex and varied experimentation on highly radioactive wastes developing approaches for waste treatment and storage activities. The building was designed as a single integrated facility for orderly progression of nonradioactive and radioactive development studies from laboratory or bench-scale to full engineering-scale pilot plant demonstrations. The facility houses radiochemical and radiometallurgical hot cells and laboratories. The facility supported several DOE/RL related initiatives for highly radioactive chemical processing and metallurgical engineering studies. As a result of residues and internal facility spills during the conduct of these activities, the facility contains areas with significant fixed and dispersible mixed waste contamination.

Site Comment: The 324 Building and associated support facilities, known as the Waste Technology Engineering Laboratory (WTEL) were constructed from 1964 to 1966. The 618-6 Burial Ground was exhumed in 1962 to allow for building construction. (The history of 618-6 is documented incorrectly in the 324 Building Closure Plan, DOE/RL-96-73. See WIDS Site 618-6.) In November 1996, the 324 Building was transferred from the Pacific Northwest National Laboratory (PNNL) to the 300 Area Stabilization Project, B&W Hanford Company, to begin the transition from its historic programmatic mission of waste technology research to a deactivation and stabilization mission. Nonradioactive and radioactive waste treatability studies were in progress at the time of facility transition and are being completed within the initial phase of deactivation. The 324 Building Closure Plan states that the integrity of the 324 Building waste containment systems will be evaluated during closure activities. If it is determined that soil contamination exists beneath the 324 Building, a WIDS site will be established for this soil contamination and remediation will be conducted as an interim measure or as part of the CERCLA remedial action.

Access Requirements: Facility Landlord escort required

References:

1. M.S. Gerber, 12/92, Past Practices Technical Characterization Study - 300 Area - Hanford Site, WHC-MR-0388

2. DH DeFord, RW Carpenter, MW Einan, 8/94, 300-FF-2 Operable Unit Technical Baseline Report, BHI-00012, Rev 00

3. T. F. Johnson, 4/28/95, Suspect Waste Site Investigation Logbook, EL-1238

4. 3/17/97, State of Washington Department of Ecology (Ecology) Investigation of the 324, 325, 327 Buildings, December 19, 1997, 97-EAP-321, 0047119

5. Bob Wilson, 2/12/97, Debris Waste Returned to the 324, 325, and 327 Buildings, 0046727

6. Ellen Mattlin, 8/12/96, Information Requested By the Washington State Department of Ecology (Ecology) during their Inspection of the 324 Sodium Removal Pilot Plant and the 332 Storage Facility on August 8, 1996, 0044998

7. Ellen Mattlin, 9/5/96, Balance of the Information Requested By the Washington State Department of Ecology (Ecology) During their inspection of the 324 Sodium Removal Pilot Plant and the 332 Storage Facility on August 8, 1996, 0045120

8. 3/98, 324 Building Radiochemical Engineering Cells, High-Level Vault, Low-Level Vault, and Associated Areas Closure Plan, DOE/RL-96-73, Rev 1

9. Fluor Daniel Hanford, 1998, Facility Vulnerability Assessment Phase III Management Plan, HNF-2416

Dimensions:

Length:	71.48 Meters	234.50 Feet
Width:	61.87 Meters	203.00 Feet
Depth / Height:	13.70 Meters	44.95 Feet

References: 1. 3/98, 324 Building Radiochemical Engineering Cells, High-Level Vault, Low-Level Vault, and Associated Areas Closure Plan, DOE/RL-96-73, Rev 1

Regulatory Information:

Programmatic Responsiblility

DOE Program: .EM-60 **Confirmed By Program:** Yes

DOE Division: TPD - Transition Program Division

Responsible Contractor/Subcontractor: BWHC - B&W Hanford Company

Site Evaluation

Solid Waste Management Unit: No

TPA Waste Management Unit Type: Inactive Contaminated Structure

Permitting

RCRA Part A Permit:	No	**216/218 Permit:**	No
RCRA Part B Permit:	No	**NPDES:**	No
Closure Plan:	No	**State Waste Discharge Permit:**	No
TSD Number:		**Septic Permit:**	No
Air Operating Permit:	No	**Inert Landfill:**	No

Air Operating Permit Number(s):

Tri-Party Agreement

Lead Regulatory Agency: EPA

Unit Catagory: Decontamination & Decommissioning (D&D)

TPA Appendix: Other

Remediation and Closure

Decision Document:

Decision Document Status:

Remediation Design Group:

Closure Document:

Closure Type:

Post Closure Requirements:

Residual Waste:

New Site Code:

Waste Information:

Type:	Equipment	**Amount:**	
Category:	Mixed	**Units:**	
Physical State:	Solid	**Reported Date:**	
Start Date:		**End Date:**	

Waste Obscured:

Description: Currently, the facility is undergoing deactivation to address radiological and chemical contamination remaining in the facility. The waste is contaminated equipment that is being removed from the facility, packaged, and transported to the 200 Area for burial.

References: 1. 3/98, 324 Building Radiochemical Engineering Cells, High-Level Vault, Low-Level Vault, and Associated Areas Closure Plan, DOE/RL-96-73, Rev 1

Field Work:

Type: Site Walkdown

Begin Date: 7/20/95 **Field Crew:** T. F. Johnson

End Date: 7/20/95 **Data Repository:**

Purpose: Initial Review

Comment:

Site Cover:

Accessibility: No **Site Found:** Yes

Discoloration: No **Debris Visible:** No

Vegetation Type:

Soil Color

Soil Texture:

Comment

References: 1. T. F. Johnson, 4/28/95, Suspect Waste Site Investigation Logbook, EL-1238

Images:

Date Taken: 6/1/95

Pathname: \\bhi002\esd-img\300\1923\1923_01.JPG

Description: This photo shows the 324 Building.

Date Taken: 7/1/95

Pathname: \\bhi002\esd-img\300\1923\1923_02.GIF

Description: This photo shows the 324 Building.

Date Taken: 12/15/98

Pathname: \\bhi002\esd-img\300\1923\1923_03.JPG

Description: This photo shows the west side of the 324 Building. The locked gate in the foreground is posted with current entry requirements.

Date Taken: 12/18/98

Pathname: \\bhi002\esd-img\300\1923\1923_04.JPG

Description: This photo shows the rollup door on the south side of the 324 Building. It is posted as a Radiologically Controlled Area.

Date Taken: 12/18/98

Pathname: \\bhi002\esd-img\300\1923\1923_05.JPG

Description: This photo shows the east side of the 324 Building and the 324 Stack.

Date Taken: 12/18/98

Pathname: \\bhi002\esd-img\300\1923\1923_06.JPG

Description: This photo shows the building exhaust fans and equipment on the east side of the 324 Building.