

## FACILITY STATUS CHANGE FORM

Date Submitted: 03/20/2019	Area: 200W	Control Number: D4-PFP-135
Originator: James Leary	Facility ID: 252Z-2	Phone: 509-942-6675

**Action Memorandum/Removal Action Work Plan:**

DOE/RL-2005-13 / DOE/RL-2011-03

This form documents the status of facility decontamination, deactivation, decommissioning, and demolition operations or debris removal in accordance with the applicable regulatory decision documents.

**Section 1: Facility Status**
 All D4 operations required by action memo complete.

**Description of Completed Activities and Current Conditions:**

The 252Z-2 Electrical Substation is located in room 500, a subsurface room on the east side of 291Z. It is an attached piece of electrical equipment and is not listed on the Hanford Site Structures list. However, since it is listed in Table 1-1 of the Plutonium Finishing Plant (PFP) Removal Action Work Plan (DOE/RL-2011-03, *Removal Action Work Plan for the Deactivation, Decontamination, Decommissioning, and Demolition of the Plutonium Finishing Plant Complex; RAWP*), this Facility Status Change Form is being provided to document the as-left condition. Like other attached equipment in below-grade spaces, it is outside the scope of the RAWP except for actions necessary to ensure that no hazardous waste or transuranic materials will be left. As an integral part of the 291Z building, deactivation actions were conducted in conjunction with that structure as described in CWR-PFP-00014, *291Z Demolition Report*. During the summer of 2017, the following actions were completed in relation to the 252Z-2 Electrical Substation:

- The substation was electrically isolated in conjunction with isolation of the 291Z building. The substation was characterized in conjunction with the nonradiological and radiological characterization of 291Z.
- Oil was drained from the substation transformers and properly disposed of.
- A thorough inspection for asbestos-containing material (ACM) was completed and regulated asbestos-containing material (RACM) was removed and properly disposed of.
- A beryllium assessment was completed in conjunction with the 291Z building.
- Following removal of above-grade portions of 291Z, room 500 was backfilled to grade (leaving the deactivated 252Z-2 in place for future remedial action of subsurface areas of the PFP Complex).

Actions were taken in accordance with the following documents:

- DOE/RL-2005-13, 2005, *Action Memorandum for the Plutonium Finishing Plant Above-Grade Structures Non-Time Critical Removal Action*
- DOE/RL-2011-03, 2014, *Removal Action Work Plan for the Deactivation, Decontamination, Decommissioning, and Demolition of the Plutonium Finishing Plant Complex*
- HNF-22401, 2004, *Plutonium Finishing Plant (PFP) Complex End Point Criteria*
- DOE/RL-2015-38, *291Z/291Z001 Endpoint Criteria Checklist, Rev. 0*

**Total D4 Cost for the Facility:**

\$3,000

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**FACILITY STATUS CHANGE FORM (continued)**

Date Submitted: 03/20/2019	Area: 200W	Control Number: D4-PFP-135
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**Attachment 1: Facility Information**

**252Z-2 Electrical Substation**

The 252Z-2 Electrical Substation, located in room 500 in the northeast corner of the 291Z, consisted of a bank of switchgear between two 13.8 kV/440 V transformers (Figure 1 in Attachment 2). The substation served the 291Z, 236Z, and 232Z facilities. Room 500 is 35 ft long and 17 ft wide.

The 252Z-2 Electrical Substation was deactivated in July 2017.

**Characterization**

Table 1 summarizes the characterization information collected prior to demolition of 291Z.

**Table 1. Summary of Characterization Information**

Type	Documented In	Results Summary
Asbestos	CHPRC-00032, <i>Asbestos NESHAP Thorough Inspection Report for the 252-Z-2 Electrical Switchgear and Transformer Facility, Room 500, 291Z</i> , Rev. 0	The asbestos thorough inspection found RACM in electrical components of the 252Z-2 substation switchgear. All RACM was removed prior to demolition of 291Z.
Beryllium	BFA-B-20914-Rev 1, <i>Beryllium Facility Assessment for the 291Z Exhaust Air Filter Stack Building</i> , 05/26/2016	The 252Z-2 substation was evaluated for beryllium contamination in conjunction with the 291Z building. The assessment report concluded that 291Z (including the substation in room 500) could be considered a beryllium-cleared facility.
Radiological	CWR-PFP-00034, 2017, <i>291Z Radiological Data Summary</i> , Rev. 0  Radiological Survey Reports: <ul style="list-style-type: none"> <li>• Z-1702722: 200W / 291-Z / Room 500 / Electrical Room (06/20/2017)</li> <li>• Z-17027241: 200W / 291-Z / Room 500 / Electrical Room (06/20/2017)</li> </ul>	The radiological characterization of 252Z-2 was performed in conjunction with the 291Z characterization. Room 500 was dedicated to the substation, switchgear, and other electrical equipment and did not have sources of radioactive contamination. CWR-PFP-00034 did not report any radiological contamination from room 500.

**Waste Disposition**

Waste from 252Z-2 consisted of oil from draining of the substation transformers and RACM removed from switchgear electrical components. Wastes were properly managed and disposed at the Environmental Restoration Disposal Facility.

**Associated Waste Information Data System (WIDS) Sites**

No WIDS sites were associated with the 252Z-2 Electrical Substation.

**Anomalies Discovered During Demolition**

None.

**FACILITY STATUS CHANGE FORM** (continued)

Date Submitted: 03/20/2019

Area: 200W

Control Number: D4-PFP-135

**Attachment 2: Pre-Demolition and Post-Demolition Photographs**



**Figure 1. 252Z-2 Pre-Demolition**



**Figure 2. 291Z Facility Including 252Z-2 Post-Demolition**

<b>FACILITY STATUS CHANGE FORM (continued)</b>		
Date Submitted: 03/20/2019	Area: 200W	Control Number: D4-PFP-135

### **Attachment 3: Supporting Information**

Supporting information and documentation for this Facility Status Change Form are provided in Appendix B of CWR-PFP-00014-ADD1, *291Z Ventilation Complex Endpoint Documentation*, Rev. 0, which provides the evidence to document how applicable endpoints for demolition were satisfied. The following list is the Summary of Contents from Appendix B of CWR-PFP-00014-ADD1.

#### **B1 Ready for Demolition Checklists**

Three Ready for Demolition Checklists were completed for 291Z and associated facilities. The one for 291Z001 did not address any endpoint checklist items and is therefore not included in this section. The other two checklists are for the 291Z Ventilation Exhaust Fan House (including 252Z-2) and the 2712Z Stack Sampling and Monitoring Station.

The Ready for Demolition Checklists confirm that tasks required to be performed prior to demolition were completed as indicated by signature of the manager responsible for completing the action. Some tasks required verification of completion by a walkdown. Completed walkdown checklists are included as indicated. The following tables summarize the endpoints supported by the Ready for Demolition Checklists.

#### **B2 Work Package Approval Sheets**

Field work for the work packages that supported demolition of the 291Z Ventilation Complex was completed in September 2017.

#### **B3 Verification of Hazardous Energy Isolation (VOHEI) Report**

The Verification of Hazardous Energy Isolation (VOHEI) report provides documentation that the isolations identified in the mechanical and electrical indexes have been completed and the facility meets cold and dark requirements for demolition. Due to the size of the VOHEI, only select pages are included here to demonstrate completion of this item.

#### **B4 Beryllium Assessment Report**

The three beryllium assessment reports concluded that 291Z, 291Z001, and 2712Z Buildings would not be treated as beryllium controlled facilities.

#### **B5 Pre-Demolition Radiological Data Summary Report**

The report summarizes the radiological data for the 291Z and 291Z001 Buildings in support of completion verification for endpoints 3, 8, and 9.

#### **B6 Post-Stabilization Radiological Survey Report of the 291Z Ventilation Complex**

Due to concurrent demolition activities taking place at the 234-5Z and 236Z Buildings, a post-stabilization radiological survey of the 291Z Ventilation Complex was not possible. To provide some indication of radiological conditions, surveys were conducted on equipment in the area during demolition of the 291Z Ventilation Complex. The post-demolition radiological survey report of demolition zone equipment is used to document the interim conditions observed. Interim stabilization measures were taken to accommodate adjacent demolitions (236Z and 234-5Z).

#### **B7 Review of Waste Handling and Disposal Records**

The memo documents the successful review of waste disposal records.

<b>FACILITY STATUS CHANGE FORM (continued)</b>		
Date Submitted: 03/20/2019	Area: 200W	Control Number: D4-PFP-135

**B8 Email Summary and Post-Demolition Walkdown**

This section documents of the results of the post-demolition walkdown.

**B9 Asbestos NESHAP Thorough Inspection Report**

Three separate reports document the thorough inspection of 291Z Ventilation Complex for asbestos-containing material (ACM). Coversheets of the asbestos reports and the email correspondence with the U.S. Environmental Protection Agency (EPA) documenting the approvals obtained to allow some ACM to remain during demolition are included in this section. This documentation supports verification of endpoints 9 and 27.

**B10 Miscellaneous Documentation**

This section provides miscellaneous documentation that supports completion of endpoints 1, 2, 3, 4, 10, 11, 12, 13, 14, and 15.