

WASTE SITE RECLASSIFICATION FORM

Operable Unit: 300-FF-2

Control No.: 2014-094

Waste Site Code(s)/Subsite Code(s): UPR-300-2; UPR-300-1; UPR-300-11

Reclassification Category: Interim Final Reclassification Status: Closed Out No Action Rejected RCRA Postclosure Consolidated None Approvals Needed: DOE Ecology EPA **Description of current waste site condition:**

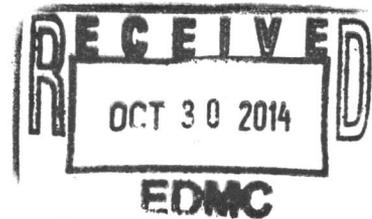
The UPR-300-1, UPR-300-2, and UPR-300-11 sites, all part of the 300-FF-2 Operable Unit, are associated with releases at the 340 facility. All three sites are included in the *Hanford Site 300 Area, Record of Decision for 300-FF-2 and 300-FF-5, and Record of Decision Amendment for 300-FF-1, Hanford Site, Benton County, Washington*, U.S. Environmental Protection Agency, Region 10, Seattle Washington (300 Area Final Action ROD) (EPA 2013) for remediation to industrial cleanup levels. Previously, these sites were identified as candidate sites for evaluation in the *Interim Action Record of Decision for the 300-FF-2 Operable Unit, Hanford Site, Benton County, Washington* (300-FF-2 ROD), U.S. Environmental Protection Agency, Region 10, Seattle, Washington (EPA 2001).

Completed in 1953, the 340 Building along with the initial Radioactive Liquid Waste Sewer (RLWS) piping system, the 307 Retention Basins, and the Retention Process Sewer (RPS) piping system represented an attempt to deal with radioactive effluents from several new laboratories in a modern, controlled manner. The 340-307 system was fed by pipes from the 325, 326, and 327 Buildings (and later the 308 Building) in a system known as the RPS or the Diversion Waste System. In this system, liquid process wastes that had the potential to be contaminated were disposed to the RPS and routed to the 307 Basins for sampling. If radioactivity was not detected above release limits, these wastes were disposed to the 307 Trenches. If levels proved to be above release limits, the effluents were pumped into the 340 Building RLWS tanks.

The UPR-300-2 site consists of multiple releases from ongoing decontamination and waste handling activities that began in January 1954. Several leaks occurred that contributed significant amounts of radioactivity to the soils surrounding the 340 Building. Soil contamination that extended several feet down and adjacent to the 340 Building south suggested that the sump (truck tanker load out) overflowed during the tanker truck era. Strontium-90 was identified in the soil. In the same vicinity, a drain was exposed to allow the draining of tanker trucks for maintenance on the tanker valves. Minor leakage occurred around the drain pipe.

The UPR-300-1 occurred in the soil between the 307 Retention Basins and the 340 Building in December 1969. A long duration leak was discovered in the cast iron transfer line when water appeared at ground surface between the basins and the 340 Building. After stopping the pump, the area of the flooding was excavated and the bottom half of the Retention Basin transfer line was found to be severely corroded adjacent to the junction of the transfer line with the RLWS line. The corroded section of carbon steel pipe discharged approximately 900 curies of short-lived radionuclides and 10 curies each of strontium-90 and cesium-137 to the soil column over a period as long as a year.

The UPR-300-11 was discovered on October 31, 1977, during an installation of a new double-contained system to replace the old RLWS piping. Contamination was found beneath leaking flanges on a tee section of the Retired Radioactive Liquid Waste Sewer south of the 340 vault. The leak contaminated a column of soil approximately 1.22 m (4 ft) in diameter and 5.5 m (18 ft) long.



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Waste Site Code(s)/Subsite Code(s): UPR-300-2; UPR-300-1; UPR-300-11

Basis for reclassification:

The UPR-300-1, UPR-300-2, and UPR-300-11 sites are all immediately adjacent to the 340 facility and associated 340 Complex waste site. Demolition of the facility and remediation of the soil waste site is currently ongoing and includes the area of these unplanned release sites. It is not practical to distinguish these sites from each other or the larger 340 Complex site; therefore, the sites are reclassified as "Consolidated" and any associated contamination will be addressed with remediation and final closure of the 340 Complex site in accordance with the 300 Area Final Action ROD (EPA 2013). Figures showing the approximate site locations, proximity to the 340 Complex, and current 340 Complex excavation status are shown in the *UPR-300-2, Releases at the 340 Facility, UN-300-2, UN-316-2; UPR-300-1, 316-1A, 307-340 Waste Line Leak, UN-300-1; UPR-300-11, Underground Radioactive Liquid Line Leak, UN-300-11 Waste Sites, Attachment to Waste Site Reclassification Form 2014-094* (attached).

Regulator comments:

Waste Site Controls:

Engineered Controls: Yes No Institutional Controls: Yes No O&M Requirements: Yes No

If any of the Waste Site Controls are checked Yes, specify control requirements including reference to the Record of Decision, TSD Closure Letter, or other relevant documents:

Waste site controls will be addressed with the 340 Complex waste site, as warranted.

M. S. French

DOE Federal Project Director (printed)



Signature

10/8/14

Date

N/A

Ecology Project Manager (printed)

Signature

Date

B. Simes

EPA Project Manager (printed)

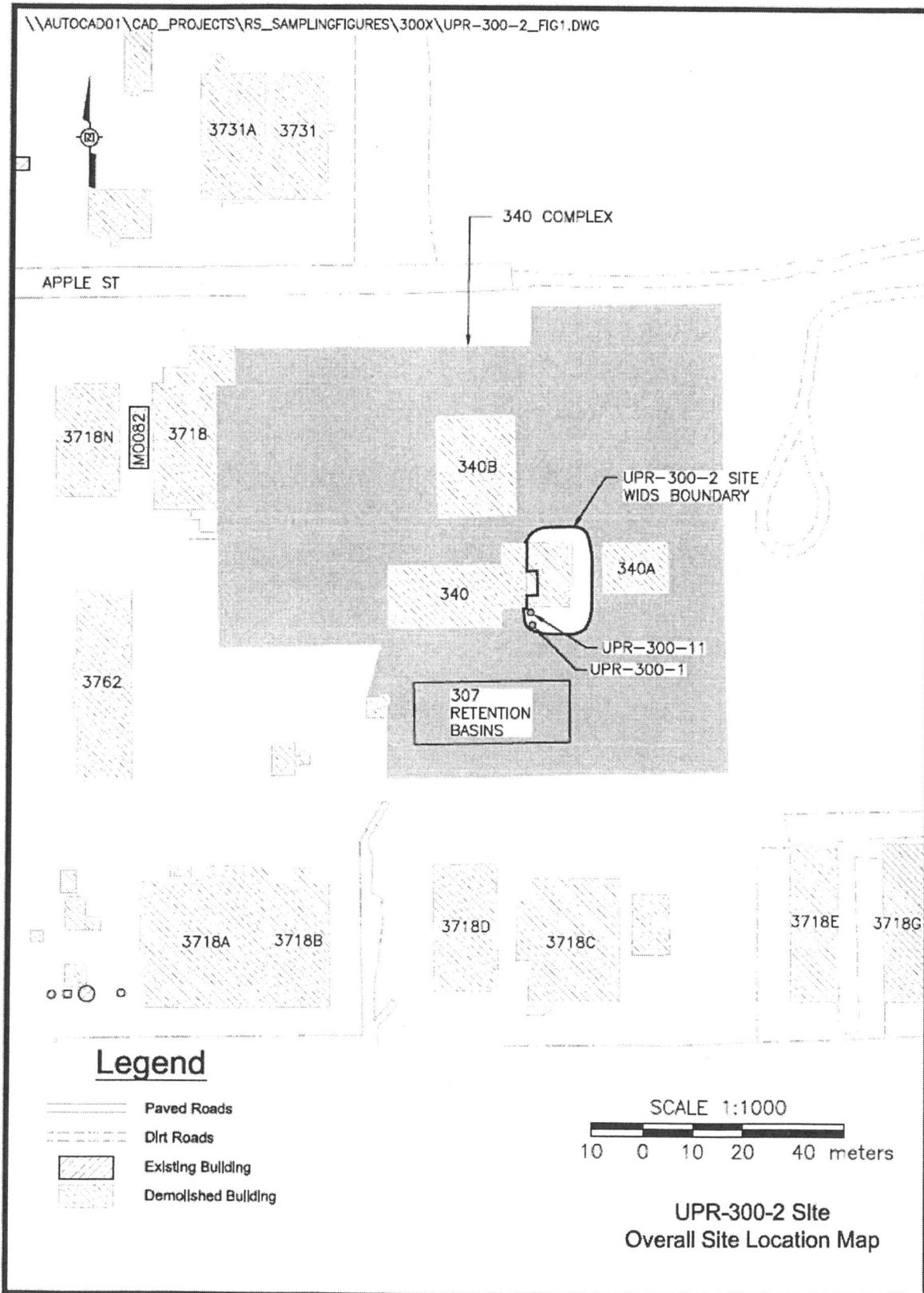


Signature

Date

10/16/14

Figure 1. UPR-300-2 Waste Site Location Map.



**Figure 2. Approximate Area of the UPR-300-2 Waste Site,
East of the 340 Complex (March 31, 1993).**



Figure 3. UPR-300-2 Waste Site Current Site Conditions (June 16, 2014).

