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Date Submitted: April 2, 2007 Originator: L. M. Dittmer Phone: 372-9664	**WASTE SITE RECLASSIFICATION FORM** Operable Unit(s): 100-FR-1 Waste Site Code: 100-F-44:1 Type of Reclassification Action: Closed Out ☐ Interim Closed Out ☐ No Action ☒ RCRA Postclosure ☐ Rejected ☐ Consolidated ☐	Control Number: 2007-005

This form documents agreement among parties listed authorizing classification of the subject unit as Closed Out, Interim Closed Out, No Action, RCRA Postclosure, Rejected, or Consolidated. This form also authorizes backfill of the waste management unit, if appropriate, for Closed Out and Interim Closed out units. Final removal from the NPL of No Action and Closed Out waste management units will occur at a future date.

Description of current waste site condition:

The 100-F-44:1, Discovery Pipeline Near 182-F Reservoir subsite is located within the 100-FR-1 Operable Unit of the Hanford Site and is one of the subsites associated with the 100-F Miscellaneous Pipeline site. The subsite is a 20-cm (8-in) carbon steel pipe that carried reservoir water from the 182-FA Pump Test Stand to the process sewer (100-F-26:1) via a junction box. Soil below the junction box and sediment/scale within the 100-F-26:1 pipeline were sampled and the process sewer (100-F-26:1) was interim closed with no action as documented in Waste Site Reclassification Form 2005-008.

The 100-F-44:1, Discovery Pipeline Near 182-F Reservoir subsite carried reservoir water from the Pump Test Stand (Building 182-FA) to the 100-F-26:1 process sewer a distance of approximately 34 m (110 ft). The Pump Test Stand received reservoir water from the emergency raw water header in 182-F. The facility was constructed to test new designs for impellers and prototype pumps for future use at the 190 Building. The test stand held the pump in place while the operating parameters were varied under controlled conditions. The pump generated heat which raised the temperature of the re-circulating water. To control the temperature of the water, cooler water from the reservoir was added while warmer water was discharged through the 8-inch line. There were no chemicals added within the test building. The water was used simply to operate the pump.

Basis for reclassification:

The 100-F-44:1 pipeline carried only recirculated raw river water. Furthermore the soil below the outlet (junction box) for the 100-F-44:1 discovery pipeline and sediment/scale within the 100-F-26:1 pipeline exposed in the junction box was sampled and analyzed during the 100-F-26:1 (service area 5) confirmatory sampling activity. The maximum detected results for all COPCs in the 100-F-26:1 pipe sediment/scale and underlying junction box soil samples were less than background or applicable remedial action goals and therefore the site met the remedial action objectives. Based on these results, no remedial action was required for service area 5 of the 100-F-26:1 subsite as documented in Waste Site Reclassification Form 2005-008. Therefore no action is required at 100-F-44:1. The basis for reclassification is described in detail in the Attachment to Waste Site Reclassification Form 2007-005 (attached).

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.

K. D. Bazzell DOE Federal Project Director (printed)	Signature	4/26/2007 Date
N/A Ecology Project Manager (printed)	Signature	Date
R. A. Lobos EPA Project Manager (printed)	Signature	4-26-07 Date

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Attachment to Waste Site Reclassification Form 2007-005

Description of 100-F-44:1 Subsite

100-F-44:1

The 100-F-44:1 pipeline site was discovered during confirmatory sampling at test pit 5 of the 100-F-26:1 pipelines site (BHI 2004). The test pit contained a junction box with two 76 cm (30-in) reinforced concrete pipes and a previously unidentified 20-cm (8-inch) carbon steel pipe (BHI 2005a). Figure 1 provides a photo of the junction box and pipelines located during the confirmatory sampling activity. The smaller pipe was just west of the 182-F Reservoir and ran north from the junction box an undetermined distance at a depth of 7 ft below the ground surface. The only building in the vicinity north of this location was the former 182-FA Pump Test Stand. Drawing H-1-11253 shows that a 20-cm (8-in) pipe travels from the 182-FA building to the junction box where two 76-cm (30-in) reinforced concrete pipes meet.

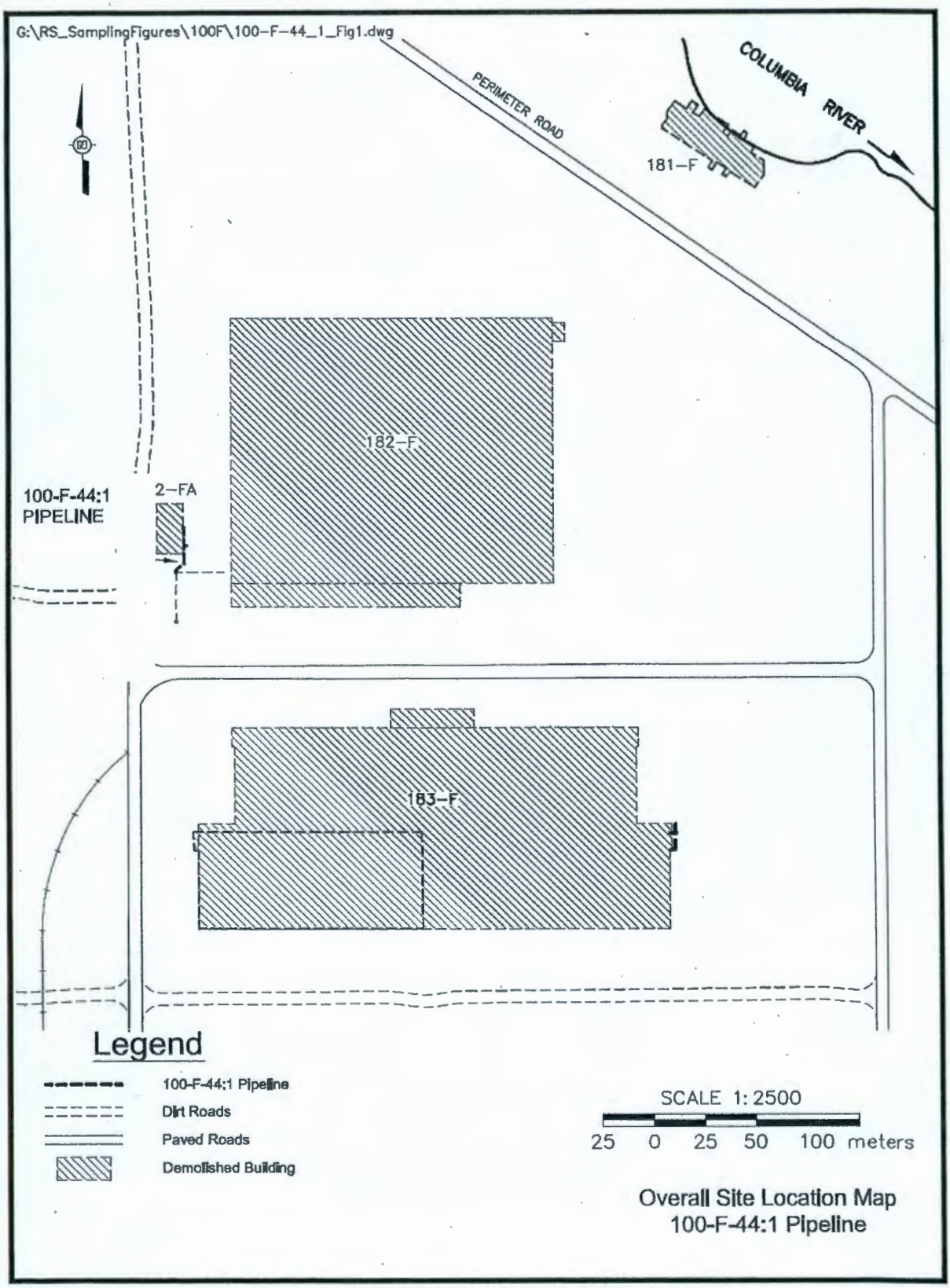
Figure 1. Photo of 100-F-44:1, Discovery Pipeline (steel) near 182-F (BHI 2005b)

The Pump Test Stand was built in 1959 (Figure 2) to test new designs for impellers and prototype pumps for future use at the 190 Pumphouse (GE 1958). The pump test stand was located west of the 182-F reservoir (Figures 3 and 4). The pumps, instrument panels and suction piping were housed inside an army surplus prefabricated building. Sanitary and steam utilities were not constructed since the project was considered to be of short duration. The only underground piping installed was between the pump test stand and the 182-F reservoir and the process sewer. Water from the 182-F reservoir was recirculated through a suppression tank with constant makeup and bleed to control temperature rise.

Figure 2. Construction of the 182-FA Pump Test Stand Bldg. foundation (dated 1959).

Figure 3. Aerial Photograph of the 182-FA Pump Test Stand Bldg. (dated circa 1965).

Figure 4. Location of 100-F-44:1 Pipeline.



As previously stated, the process sewer that joined the 182-FA discharge pipe at the junction box (service area 5) was sampled as part of confirmatory sampling for the 100-F-26:1 pipelines site (BHI 2004). Confirmatory samples were collected via excavation of a junction box composed of red brick and mortar with a concrete foundation pad. A soil sample was collected from below the concrete pad at a depth of 1.8 m (6 ft) below ground surface and a scale/sediment sample was scabbled from the side of the 0.76-m (30-in) reinforced concrete pipe. Evaluation of the confirmatory sample results for the 100-F-26:1 satisfied the remedial action objects and the site was interim closed (BHI 2005c) with no remedial action required. Since the water carried by the 100-F-44:1 pipeline is essentially the same water as that carried by the 100-F-26:1 pipeline in service area 5 of the 100-F-26:1 subsite, no remedial action for the 100-F-44:1 subsite is needed and it may be closed with no remedial action.

REFERENCES

BHI, 2004, *Work Instruction For 100-F-26:1 North Process Sewer Collection Pipelines (182-F Reservoir And 183-F Clearwells Process Sewer Lines)*, 0100F-WI-G0015, Bechtel Hanford, Inc., Richland, Washington.

BHI, 2005a, *100F Remaining Sites Field Sampling*, Logbook EL-1578-4 pp 88-90 and 93, Bechtel Hanford, Inc., Richland, Washington.

BHI, 2005b, *100F Remaining Sites Field Sampling*, Logbook EL-1578-5 pp 35-36, Bechtel Hanford, Inc., Richland, Washington.

BHI, 2005c, *Remaining Sites Verification Package for the 100-F-26:1 North Process Sewer Collection*, Attachment to Waste Site Reclassification Form 2005-008, Bechtel Hanford Inc., Richland, Washington.

GE, 1958, Design Bases for Pump Test Stand, HW-58152, General Electric Company, Hanford Works, Richland, Washington

GE, 1959, *Plot Plan Pump Test Stand (182-FA)*, H-1-11253, U.S. Atomic Energy Commission, Hanford Atomic Products Operation, General Electric Company, Richland, Washington.