

Waste Site Reclassification Form

<p>Date Submitted: 8/23/05</p> <p>Originator: R. A. Carlson</p> <p>Phone: 373-1440</p>	<p>Operable Unit(s): 100-DR-1</p> <p>Waste Site ID: 132-DR-1</p> <p>Type of Reclassification Action:</p> <p>Rejected <input type="checkbox"/></p> <p>Closed Out <input type="checkbox"/></p> <p>Interim Closed Out <input checked="" type="checkbox"/></p> <p>No Action <input type="checkbox"/></p>	<p>Control Number: 2005-035</p> <p>Lead Agency: Ecology</p>
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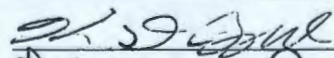
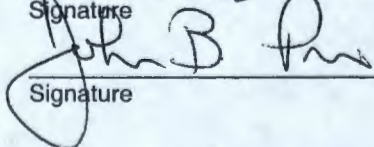
This form documents agreement among the parties listed below authorizing classification of the subject unit as rejected, closed out, interim closed out, or no action and authorizing backfill of the site, if appropriate. Final removal from the National Priorities List (NPL) of no action, interim closed-out or closed-out sites will occur at a future date.

Description of current waste site condition:

Radiological characterization, decommissioning and demolition of the 132-DR-1 site, 1608-DR Effluent Pumping Station was performed in 1987. Decommissioning included removal of equipment and water for disposal as radioactive waste. Sludge in the sump areas was removed and disposed as mixed waste. The at- and below-grade structure (floor slab, foundation walls, sump walls, and piping) was demolished to at least 5 m (16.4 ft) below grade with the resulting rubble buried in situ. The area was backfilled to grade with 5 m (16.4 ft) of clean fill to blend with the natural terrain. Samples of concrete and pipe scale/rust were taken prior to decommissioning and used to support dose assessment calculations that were prepared in accordance with *Allowable Residual Contamination Levels (ARCL) for Decommissioning Facilities in the 100 Areas of the Hanford Site* (Kennedy and Napier 1983). The ARCL calculations indicated that the "worst case" potential dose to the maximally exposed individual in 1987 would be 5.2×10^{-2} mrem/yr. A RESidual RADioactivity (RESRAD) evaluation was performed in 2005 using the 1987 sampling results to support the interim closure decision. The evaluation accounts for radioactive decay from 1987 (the year of building demolition) to 2005 and predicts the maximum dose rate is 1.93×10^{-2} mrem/yr above background over 1,000 years. The RESRAD evaluation also showed that, of the contaminants detected, only tritium is predicted to reach groundwater within 1,000 years. The maximum tritium concentration in groundwater is predicted to be less than the remedial action goal (20,000 pCi/L). Therefore, the dose limits for the rural residential (15 mrem/yr) and groundwater (4 mrem/yr) pathways will not be exceeded.

Basis for reclassification:

The site achieves the remedial action objectives (RAOs) and the corresponding remedial action goals (RAGs) established in the *Remedial Design Report/Remedial Action Work Plan for the 100 Area*, DOE/RL-96-17, Rev. 5, U.S. Department of Energy, Richland Operations Office, and the *Interim Action Record of Decision for the 100-BC-1, 100-BC-2, 100-DR-1, 100-DR-2, 100-FR-1, 100-FR-2, 100-HR-1, 100-HR-2, 100-KR-1, 100-KR-2, 100-IU-2, 100-IU-6, and 200-CW-3 Operable Units, Hanford Site, Benton County, Washington*, U.S. Environmental Protection Agency, Region 10, Seattle, Washington. Residual concentrations support future land uses that can be represented (or bounded) by a rural-residential scenario and pose no threat to groundwater or the Columbia River based on RESRAD modeling. However, the acceptability of unrestricted direct exposure to below-grade structure surfaces in the deep zone has not been demonstrated; therefore, institutional controls to prevent uncontrolled drilling or excavation into the deep zone are required. The basis for reclassification to interim closed out is described in detail in the attached *Remaining Site Verification Package for 132-DR-1, 1608-D Effluent Pumping Station, Bechtel Hanford Inc., Richland, Washington*.

<p>_____ Kevin Bazzell, DOE Project Manager</p>	<p> _____ Signature</p>	<p>9/22/05 _____ Date</p>
<p>_____ John Price, Ecology Project Manager</p>	<p> _____ Signature</p>	<p>9/22/2005 _____ Date</p>
<p>_____ NA EPA Project Manager</p>	<p>_____ Signature</p>	<p>_____ Date</p>

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