

Categorical Exclusion for 100 K Area Utilities Reroute Hanford Site, Richland, Washington

Proposed Action

The U.S. Department of Energy, Richland Operations Office (RL), needs to accelerate decommissioning and demolition (D&D) of the 100 K Area ancillary facilities, 100 K Area waste site remediation, and 105-K East and 105-K West reactor disposition. The proposed activities would provide for the isolation of 100 K Area utilities to facilitate achieving cold and dark conditions for facilities subject to D&D and remediation. The proposed activities would include the elimination of raw water withdrawals from the Columbia River by closing the 183-K East waste supply station and installing a temporary supply system to provide water and not interfere with D&D activities. Electrical systems also would be re-routed to facilitate the D&D of tunnels.

Location of Action

100 K Area, Hanford Site, Richland, Washington (Figure 1).

Description of Proposed Action

Approximately 11,000 feet of raw water transfer line would be installed, tying into an existing water line south of the 100 B Area to the southwest corner of the 100 K Area (Figures 2 and 3). The water line would be continued north to the 142-KW Building and rerouted to provide water to two fire hydrants at the 015-KW Building and to the balance of the 100 K Area. Water lines would be installed within the exterior of the 100 K Area. The system would be provided with a heating system to prevent freezing. Water filtration would involve use of portable filtration units providing a minimum of 50 gallons per minute (189 liters per minute) to provide sanitary water supply for approximately 15 trailers, portable restrooms, and shower trailers. Trench excavation could reach a depth of 4 feet or more and up to 4 feet wide or more.

Electrical utilities would be consolidated and re-routed to avoid interference with on-going demolition activities. The existing 100 K Area electrical system is sized to support the operation of two large river water pumps, continuous operation of raw water pumps, two reactors, and various support facilities. The 100 K Area substations are fed electrical power by large towers providing 230 kV supply. Distribution of electricity between substations is conducted via tunnels, which are to undergo D&D.

Minor modifications to the heating, ventilation, and air conditioning (HVAC) system in the 100-KW Basin also would be provided for worker protection and comfort during continued operations. The current working environment involves radiological airborne contamination in a hot and humid environment; the HVAC upgrades would keep the work area below airborne radiation requirements.

The proposed activities are scheduled to start in FY 2009 and be completed in FY 2010. Total project costs are estimated to be no greater than \$1,000,000, with a funding source under the *American Recovery and Reinvestment Act of 2009*.

Categorical Exclusion (CX) to be Applied

The following CX is listed in Title 10, Code of Federal Regulations (CFR) 1021, "National Environmental Policy Act Implementing Procedures," Subpart D, Appendix B, published in the Tuesday, July 9, 1996, 61 Federal Register 36222:

- B1.26 Siting, construction (or expansion, modification, or replacement), operation, and decommissioning of small (total capacity less than approximately 250,000 gallons per day) wastewater and surface water treatment facilities whose liquid discharges are externally regulated, and small potable water and sewage treatment facilities.

ELIGIBILITY CRITERIA

Since there are no extraordinary circumstances that may affect the significance of the environmental effects of the proposal, the proposed activity meets the eligibility criteria of 10 CFR 1021.410(b), as shown in the following table. The proposed activity is not "connected" to other actions with potentially significant impacts [40 CFR 1508.25(a)(1)], or with cumulatively significant impacts [40 CFR 1508.25(a)(2)], and is not precluded by 10 CFR 1021.211.

The "Integral Elements" of 10 CFR 1021 are satisfied as discussed below.

INTEGRAL ELEMENTS 10 CFR 1021, SUBPART D, APPENDIX B	
Would the Proposed Action:	Comment or explanation:
Threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, including requirements of DOE and/or Executive Orders?	No applicable laws, regulations, or orders would be violated by the proposed actions.
Require siting and construction or major expansion of waste storage, disposal, recovery or treatment facilities (including incinerators)? The proposal may include categorically excluded waste storage, disposal, recovery or treatment actions.	Wastes generated during the proposed action would not require expansion/modification of existing waste management facilities.
Disturb hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products that preexist in the environment such that there would be uncontrolled or unpermitted releases?	No. There would be no uncontrolled or unpermitted releases.
Adversely affect environmentally sensitive resources including, but not limited to: <ul style="list-style-type: none"> (i) Property (e.g., sites, buildings, structures, objects) of historic, archeological, or architectural significance designated by Federal, state, or local governments or property eligible for listing on the National Register of Historic Places (ii) Federally-listed threatened or endangered species or their habitat (including critical habitat), Federally-proposed or candidate species or their habitat or state-listed endangered or threatened species or their habitat (iii) Wetlands regulated under the Clean Water Act (33 U.S.C. 1344) and floodplains (iv) Federally- and state-designated wilderness areas, national parks, national natural landmarks, wild and scenic rivers, state and Federal wildlife refuges, and marine sanctuaries (v) Prime agricultural lands (vi) Special sources of water (such as sole-source aquifers, wellhead protection areas, and other water sources that are vital in a region) (vii) Tundra, coral reefs, or rainforests? 	None of the environmentally sensitive resources listed (i through vii) will be adversely affected. Note that the National Historic Preservation Act, Section 106 assessment, was completed on April 22, 2010 (email, Annabelle Rodriguez, RL, to Scott Story and Colburn Kennedy, CHPRC, "Notice of Cultural Clearance for the Installation of the 100-K Area Raw Waterline, HCRC#2009-600-018." A finding of "No Historic Properties Affected" has been determined for this project.

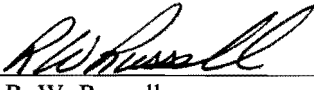
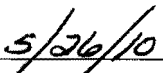
CULTURAL AND BIOLOGICAL RESOURCES REVIEWS

Cultural and biological reviews were conducted to address the proposed raw water line.

A cultural resources review (HCRC#2009-600-018) has been conducted for the 100 K Area raw waterline. On March 18, 2010, the Hanford Cultural Resources project submitted their findings and concluded that a determination of "No Historic Properties Affected" be made, because neither the cultural resources identified (one prehistoric archaeological site and one prehistoric isolate) are eligible for the national Register of Historic Places. Appropriate monitoring for cultural materials will be conducted during all work activities.

A biological review specifically for the project has been conducted (Letter, M. Sackschewsky, PNNL, to S. Story, FFS, "Biological Review of the 100-K River Water Isolation Project," ECR #2009-600-018," dated January 12, 2010). Therein, recommended mitigation activities included minimization of disturbance of sagebrush habitat and minimization of off-road travel. Based on compliance with the aforementioned recommendations, no adverse impacts to protected species, priority habitats, or other biological resources of concern would be expected to result from the proposed action.

Compliance Action: I have determined that the proposed action meets the requirements for the referenced CX. Therefore, using the authority delegated to me by DOE Order 451.1B, Change 1, I have determined that the proposed activities may be categorically excluded from further *National Environmental Policy Act of 1969* (NEPA) review and documentation.

Signature/Date:  
R. W. Russell
Hanford NEPA Compliance Officer

cc:

B. M. Barnes, CHPRC
M. T. Jansky, CHPRC
C. E. Kennedy, CHPRC
A. L. Rodriguez, RL
R. S. Weeks, PNNL

The following checklist summarizes environmental impacts that were considered:

Impact to Air

	Would the proposed action:	YES	NO
1.	Result in more than minor and temporary gaseous discharges to the environment?		X
2.	Release other than nominal and temporary particulates or drops to the atmosphere?		X
3.	Result in more than minor thermal discharges?		X
4.	Increase offsite radiation dose to >0.1 mrem (40 CFR 61 Subpart H)?		X

Impact to Water

	Would the proposed action:	YES	NO
5.	Discharge any liquids to the environment?	X	
6.	Discharge heat to surface or subsurface water?		X
7.	Release soluble solids to natural waters?		X
8.	Provide Interconnection between aquifers?		X
9.	Require installation of wells?		X
10.	Require a Spill Prevention Countermeasure and Control Plan (40 CFR 112 and 761)?		X
11.	Violate water quality standards (WAC 713-200, Table 1)?		X

Impact to Land

	Would the proposed action:	YES	NO
12.	Conflict with existing zoning or land use?		X
13.	Involve hazardous, radioactive, PCB, or asbestos waste?	X	
14.	Cause erosion?		X
15.	Require an excavation permit?	X	
16.	Disturb an undeveloped area?	X	

General

	Would the proposed action:	YES	NO
17.	Disturb Arid Lands Ecology or Wahluke Slope Reserves?		X
18.	Cause other than a minor increase in noise level?		X
19.	Make a long-term commitment of large quantities of nonrenewable resources?		X
20.	Require new utilities or modifications to utilities?	X	
21.	Use pesticides, carcinogens, or toxic chemicals?		X
22.	Require a radiation work permit?	X	

Items marked "yes" in the Environmental Impact Checklist located above, are addressed in the following paragraphs:

5. Water could be used for dust suppression during excavation activities.
13. Small amounts of radioactive waste (e.g., filters from HVAC modifications) would be appropriately disposed.
15. An excavation permit would be required before removal of soils under the liner.
16. Approximately 11,000 feet of soil disturbance outside the 100 K Area fence line would be required for tie-in to an existing raw water transfer line.
20. The proposed activities involve modification/re-routing of utilities.
22. A radiation work permit would be required due to the potential to encounter radiological contamination during excavations/utility modifications.

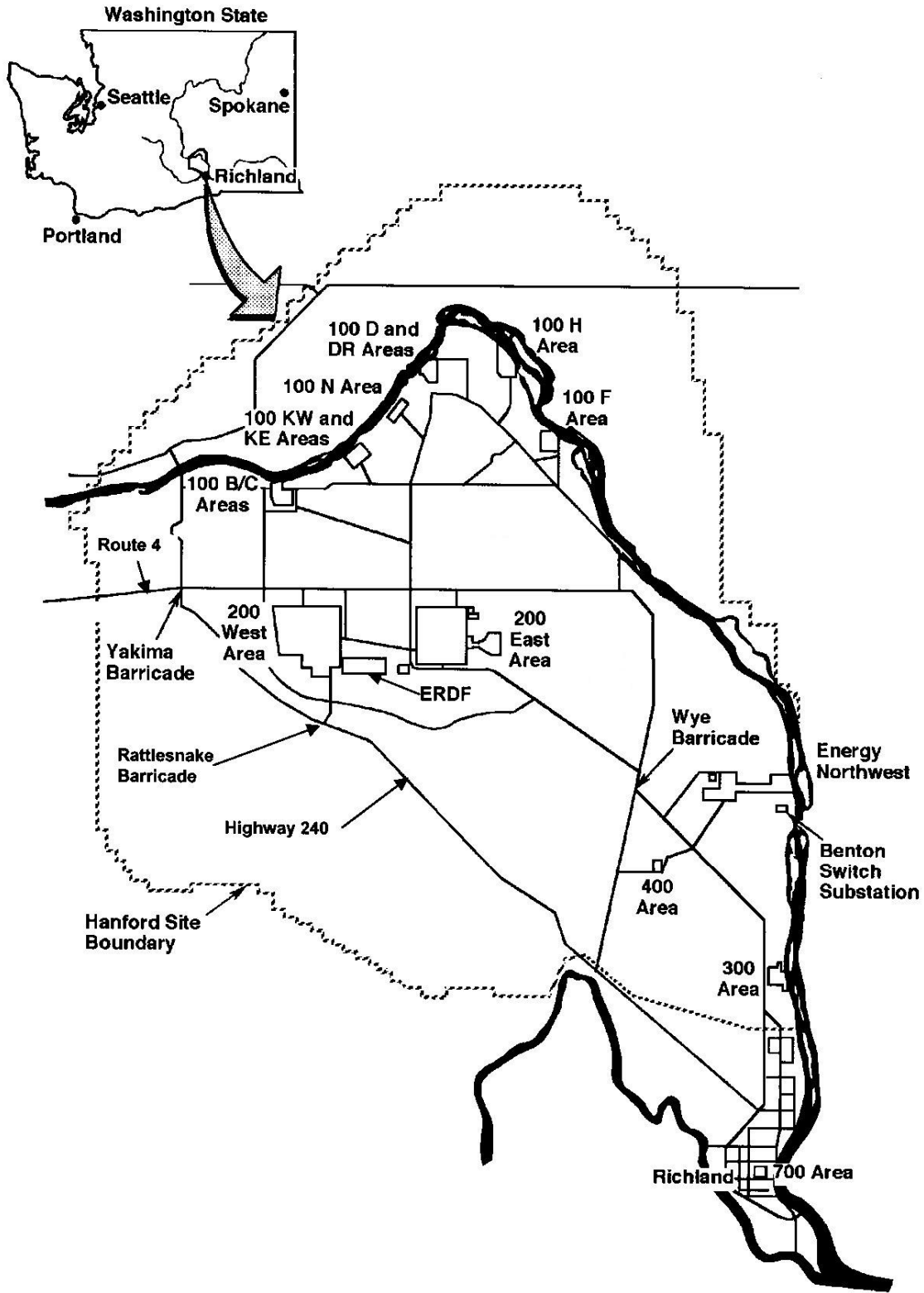


Figure 1. Hanford Site

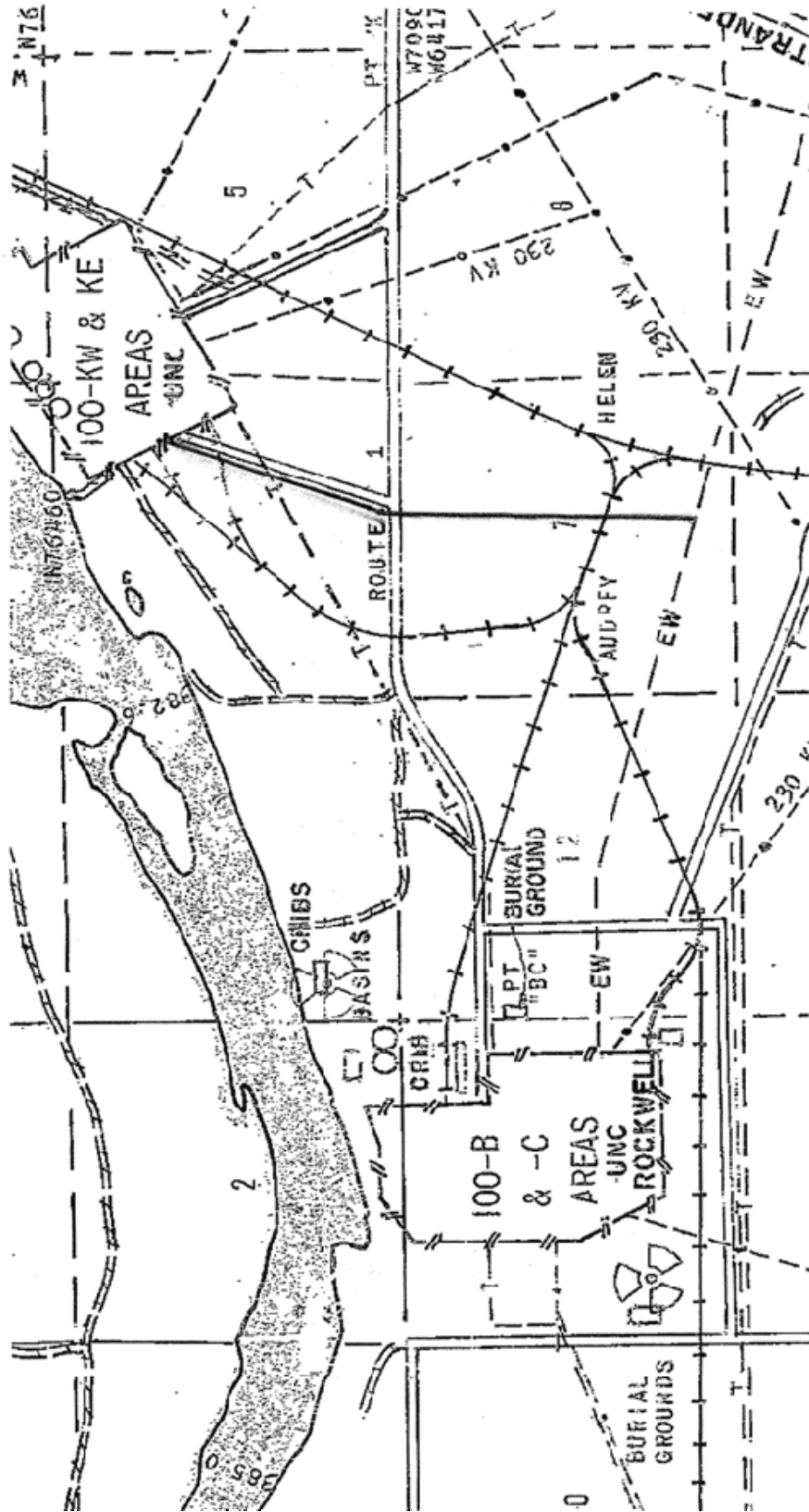


Figure 2. Proposed Water Line Tie-In

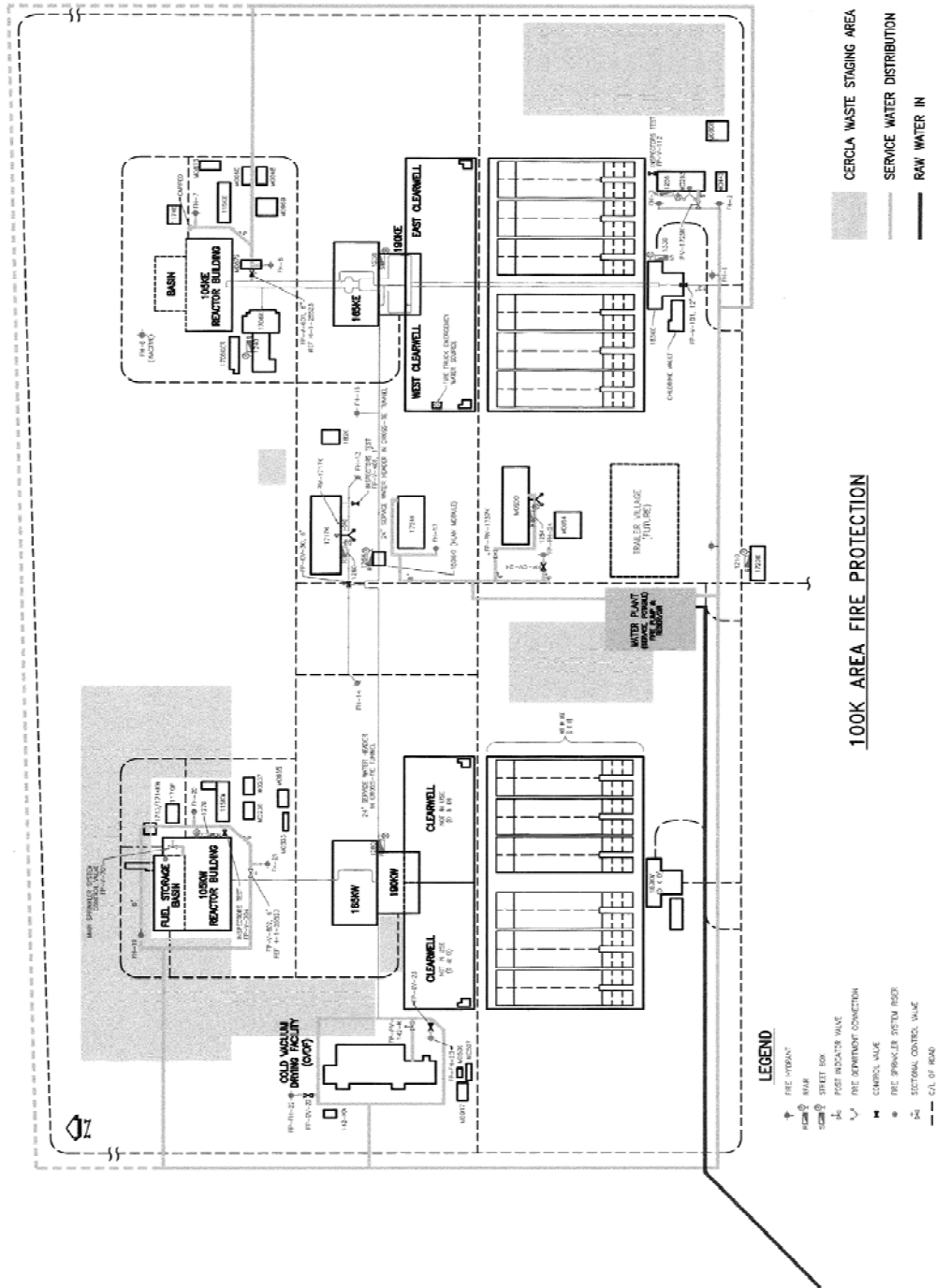


Figure 3. Proposed 100 K Area Utilities Reroute Schematic