

**CATEGORICAL EXCLUSION FOR THE CONSTRUCTION AND OPERATION
OF A DILUENTS/FLUSH SYSTEM AND ASSOCIATED FACILITY, AND AN
INSTRUMENTATION, CONTROL, AND ELECTRICAL FACILITY AT THE 241-AW AND
241-AY/AZ TANK FARMS, 200 EAST AREA, HANFORD SITE, RICHLAND, WASHINGTON**

Proposed Action

The U.S. Department of Energy, (DOE) Office of River Protection (ORP) and the Richland Operations Office (RL) propose to construct and operate a Diluents/Flush system (DFS) and associated facility, as well as an Instrumentation, Control, and Electrical (ICE) facility at the 241-AW and 241-AY/AZ Tank Farms.

Location of Action

The work will take place within the 200 East Area, Hanford Site, Richland, Washington.

Description of Proposed Action

The 241-AW and 241-AY/AZ tank farms require the construction and subsequent operation of electrical distribution systems and instrumentation and control raceways between new ICE facilities [AKA. Power Operations Center or POC] and locations within the 241-AW and 241-AY/AZ tank farms in support of future Waste Feed Delivery (WFD) operations that will be performed to support the Waste Treatment Plant (WTP).

The 241-AW and 241-AY/AZ tank farms require the construction and subsequent operation of a DFS which will support WFD operations by providing diluents (strained, heated, chemically treated water) to the waste transfer line and to the DST's within the tank farm. The DFS will be used to support initiation of waste transfers (pre-heating transfer lines and starting the transfer pumps), to provide dilution of waste during transfer, to support shutting down the transfer pumps, and to flush the transfer system and transfer pump internals following a waste transfer. Additionally, the DFS will be used to provide water to the mixer pump sparge rings to facilitate starting of the mixer pumps and to flush the mixer pump internals.

The AW ICE facilities will be located just outside, but immediately adjacent to each tank farm and they will serve as the center for electrical service and control of the tank farm equipment (see Figure 1). The 241-AW ICE facility is proposed as a 30'x60' steel pre-engineered permanent structure built into the west embankment of the farms original excavation. The 241-AW Diluents/Flush facility will be constructed south of the ICE facility (see Figure 1). Parking will be constructed around the facilities as needed to support the required operations work force, and access to the locations will be via existing access routes. Any existing on-site structures (inactive wells, lighting, man-holes, above/below grade steam line, security fencing, etc.) will be designed around and/or removed if it restricts site functionality.

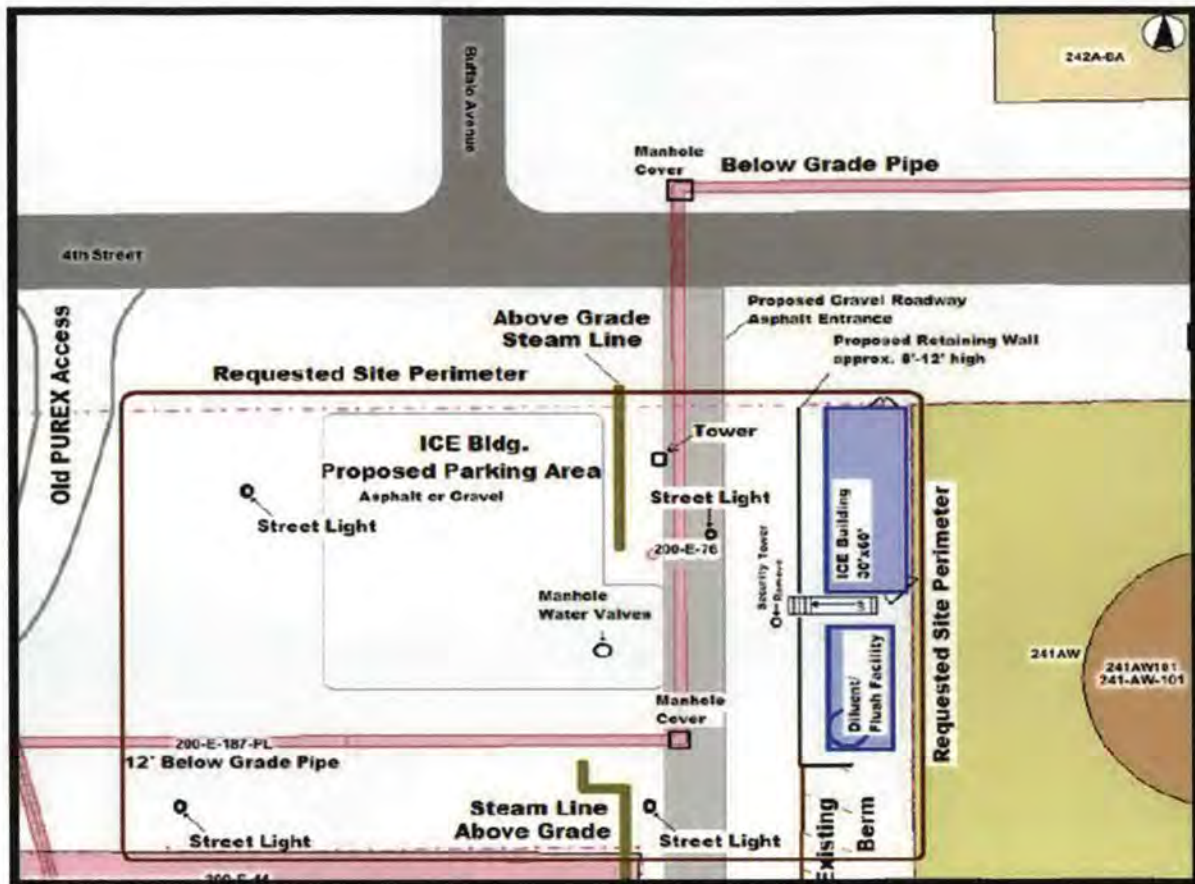


Figure 1. Site map showing the southwest corner of the 241-AW Tank Farm where the proposed ICE and Diluents/Flush facilities would be located.

The 241-AW and 241-AY/AZ DFS process piping facilities are primarily located in two areas; the Diluents/Flush pad located just outside the farm fence line and the Diluents/Flush valve pit located inside the fence. The Diluents/Flush pad is equipped with a roof structure to provide weather protection for the Diluents/Flush pad process piping equipment. The Diluents/Flush pad equipment includes a raw water supply, filtration, heaters, pumps, and a 17,000 gallon diluents storage tank. Also included is a chemical staging area to support the addition of Sodium Hydroxide or Sodium Nitrite as needed to adjust the diluents/flush water chemistry. The chemical staging area is located over a chemical sump with leak detection and adjacent to a safety shower and eyewash station supplied with potable water. The Diluents/Flush valve pits are below grade pits which will contain the jumper manifolds with double valve isolations (DVIs) providing a barrier to physically disconnect interfacing piping systems and limit potential leakage of waste. The valve pits will house the remote operated valves and will be provided with pit leak detection, a pit drain, and an at-grade pit cover.

The AY/AZ ICE facilities will be located north of 241-AY Tank Farm, west of the 241-AZ Tank Farm, and east of Buffalo Avenue in the 200E Area, and they will serve as the center for electrical service and control of the tank farm equipment (see Figure 2). The 241-AY/AZ ICE facilities are proposed as a 30' x 60' steel pre-engineered permanent structure built into the west embankment of the farms original

excavation. The 241-AY/AZ Diluents/Flush facility will be approximately 40' x 60'. Parking will be constructed around the facilities as needed to support the required operations work force, and access to the locations will be via existing access routes. Any existing on-site structures (inactive wells, lighting, man-holes, above/below grade steam line, security fencing, etc.) will be designed around and/or removed if they restrict site functionality.



Figure 2. Aerial photograph showing the proposed locations of the new 241-AY/AZ ICE and Diluents/Flush facilities.

The existing 241-AW and 241-AY/AZ tank farm electrical distribution systems are currently inadequate for support of WFD loads and require various upgrades as needed to support WFD work scope, the new ICES, and the new DFS. Upgrades are also needed to make the lines compliant with current regulations and safety requirements. These upgrades would include work like the replacement in-kind of various equipment and electrical lines, the installation of a new transformer which will be located outside of the tank farms, and new feeds to the transformers.

All electrical work will be done in accordance with manufacturer's requirements and governing electrical codes. All equipment used and installed as part of the project work scope will be listed or labeled by an organization currently recognized by Occupational Safety and Health Administration (OSHA) as a nationally recognized testing laboratory. All hazardous materials, equipment, and waste generated or disturbed during the work will be properly managed, recycled, or disposed of, as needed, in an appropriately licensed treatment, storage, and disposal facility.

No adverse cultural/historic impacts will occur. These areas are highly disturbed, long-term industrial zones that qualify as culturally exempt under PNL-7246, "*Archaeological Surveys of the 200 East and 200 West Areas, Hanford Site, Washington*", Battelle letter 9405630, "*Cultural Resources Exemption of the Tank Farm Areas*", and were, in addition, reviewed as part of cultural resource review HCRC#2003-200-044, "*Cultural Resources Review of Retrieval, Treatment and Disposal of Tank Waste and Closure of Single Shell Tanks (Tank Closure) Environmental Impact Statement (EIS) (HCRC# 2003-200-044)*".

No adverse ecological impacts will occur. All land within each tank farm is considered a long-term industrial area that is highly disturbed, primarily consisting of graveled and paved areas and structures. No vegetation or wildlife is allowed within the tank farms, and regular biological control work and prevention activities are performed by the Mission Support Alliance LLC (MSA) contractor to support this objective (i.e. MSA also contains, treats, manages, and removes biologicals when found). Most of the lands surrounding each tank farm is also highly disturbed industrial areas containing various structures, facilities, and utilities, and with limited open areas of land which have been regularly cleared, often leveled, and are typically graveled or paved. Most vegetation when present consists of noxious or industrial weeds with few native species other than the occasional native grass or forb. For those tank farms that do have vegetated areas adjacent to the farm in which activity is planned, an ecological compliance review will be obtained as needed prior to any work being performed to verify that there will be no adverse ecological impacts in accordance with the requirements of the NEPA Categorical Exclusion and 10 Code of Federal Regulations (CFR) 1021.410, Appendices A and B to Subpart D.

Categorical Exclusions to be Applied

The following categorical exclusions (CXs) are listed in 10 CFR 1021, "National Environmental Policy Act Implementing Procedure," Subpart D, Appendix B, published in the Tuesday, July 9, 1996, 61 Federal Register 36222:

- B1.15 Siting, construction (or modification), and operation of support facilities and support structures (including, but not limited to, trailers and prefabricated facilities) within or contiguous to an already developed area (where active utilities and currently used roads are readily accessible). Covered support facilities and structures include those for office purposes; parking; cafeteria services; education and training; visitor reception; computer and data processing services; employee health services or recreation activities; routine maintenance activities; storage of supplies and equipment for administrative services and routine maintenance activities; security (including security posts); fire protection; and similar support purposes, but excluding facilities for waste storage activities, except as provided in other parts of this appendix.

Eligibility Criteria

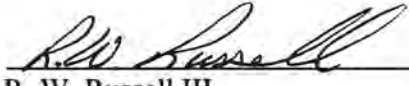
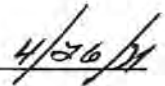
Since no extraordinary circumstances that may affect the significance of the environmental effects of the proposal have been identified, the proposed activity meets the eligibility criteria of 10 CFR 1021.410(b), as shown in the following table. The proposed activity is not “connected” to other actions 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 environmental, 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.	Action does not require siting and construction of waste storage, disposal, recovery or treatment facilities.
Disturb hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products that pre-exist in the environment such that there would be uncontrolled or unpermitted releases?	There will be no uncontrolled or unpermitted releases associated with the proposed actions.
Adversely affect environmentally sensitive resources including but not limited to: (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 USC 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 by the proposed actions. (i) Proposed action does not adversely affect historical/cultural resources (ii) Proposed action does not adversely affect ecological resources (iii) N/A (iv) N/A (v) N/A (vi) N/A (vii) N/A

Documentation for each use of the categorical exclusions would be maintained according to contractor procedures and DOE requirements.

Compliance Action: I have determined that the proposed action meets the requirements for the referenced Categorical Exclusions. 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 NEPA review and documentation.

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