

CATEGORICAL EXCLUSION FOR THE TANK FARM INTERIM SURFACE BARRIERS, 200 AREAS, 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 interim surface barriers over several tank farms.

Location of Action

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

Description of Proposed Action

Interim surface barrier(s), typically constructed of modified asphalt or other impermeable material, may be constructed over and/or adjacent to the 241-SX Tank Farm, the 241-U Tank Farm, the 241-BY Tank Farm, and/or other tank farms as needed. Each interim barrier may also include a stormwater conveyance system and an associated stormwater collection system.

The interim surface barrier(s) are designed to protect human health and the environment until final closure decisions are implemented for the tank farms. The overall function of the interim surface barriers is to reduce infiltration into the tank farm soils of water from rainfall and snowmelt events. Infiltration can carry contamination deeper into the soil column and potentially to groundwater. Examples of specific functional requirements for barriers may include the following:

- Minimize the infiltration of precipitation.
- Function under environmental conditions present at the Hanford Site (i.e. semi-arid climate)
- Function with minimal maintenance
- Minimize the likelihood of plants or animals accessing and mobilizing contamination
- Control surface water runoff and prevent the run-on of surface water
- Minimize surface erosion by wind and water
- Accommodate potential settling and subsidence to maintain barrier integrity

The stormwater conveyance systems typically require that the interim barrier be sloped to facilitate drainage. The collected stormwater will then be routed into stormwater collection boxes. Cleanout structures (e.g. solids separator) may be installed along the drain line route(s) to separate suspended solids (e.g. blow sand) and prevent buildup. The system will direct the water into the associated stormwater collection system.

The stormwater collection system will typically be some type of lined evaporative basin or cistern. Stormwater will mainly be removed via natural evaporative processes through soil or air. At times, this may be coupled with an evapotranspiration process (i.e. transpiration via

vegetative respiration), which will assist in the control and removal of the storm water, preventing it from infiltrating into the vadose zone.

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 which may be used are also highly disturbed industrial areas containing structures and with limited open areas of land which have been regularly cleared, often leveled, and 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 an interim barrier and/or stormwater collection system 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. All hazardous materials, equipment, soils, and waste generated or disturbed during the work will be properly handled, managed, re-used or recycled, and/or disposed of, as needed and appropriate.

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:

- B6.9 Small-scale temporary measures to reduce migration of contaminated groundwater, including the siting, construction, operation, and decommissioning of necessary facilities. These measures include, but are not limited to, pumping, treating, storing, and reinjecting water, by mobile units or facilities that are built and then removed at the end of the action.

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: <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 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? 	<p>None of the environmentally sensitive resources listed (i through vii) will be adversely affected by the proposed actions.</p> <ul style="list-style-type: none"> (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* 4/26/11
R. W. Russell III
Hanford NEPA Compliance Officer