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NEPA REVIEW SCREENING FORM

Document ID Number:

DOE/CX-00134

I. Project Title:

Activity-Specific Categorical Exclusion for Reconfiguration of Export Water System at 181-D under Project L-781

II. Project Description and Location (including Time Period over which proposed action will occur and Project Dimensions - e.g., acres displaced/disturbed, excavation length/depth, area/location/number of buildings, etc.):

The proposed action will reconfigure the existing Export Water System at the 181-D Pump House that currently conveys raw water from the Columbia River to the 182-D Reservoirs. The 182-D Reservoirs hold raw water for transfer to the 200 Areas of the Hanford Site through an existing 42-inch Export Water System pipeline. The 181-D Pump House is a backup to the primary raw water supply provided by the 181-B Pump House. Both pump houses are located along the banks of the Columbia River in 100-D and 100-B Areas of the Hanford Site, respectively.

The 181-D Pump House and 182-D Reservoirs are nearly 70-years old. The pumps in the 181-D Pump House will be replaced. The raw water in the 182-D Reservoirs must currently be kept at a level to avoid leaks and potential interactions with soil contaminants. The 182-D Reservoirs will be isolated, bypassed, and eventually demolished. The Hanford Site River Corridor Contractor will demolish the 182-D Reservoirs in the future under CERCLA authority.

The 181-D Pump House piping will be reconfigured to convey raw water from the Columbia River directly to existing reservoirs in the 200 Areas of the Hanford Site for fire protection and other uses. This will be accomplished by connecting into the existing Export Water System pipeline located to the west of the 182-D Reservoirs. Primary and secondary pipeline routes are proposed from the 181-D Pump House to the Export Water System pipeline tie-in points. The primary pipeline route will tie-in at a point where the Export Water System pipeline intersects Paddock Street. A secondary pipeline route has been identified as a contingency and would tie-in at a point where the Export Water System pipeline intersects Pump House Loop Road. Back-flow of water in the Export Water System pipeline during tie-in construction activities will be managed with existing in-line valves and other measures to avoid potential ponding of water, soil erosion, and interactions with soil contaminants.

The new 181-D pumping system will be capable of delivering a total of 14,000 gallons/minute using vertical electric turbine pumps. A new pump header/manifold will be installed to manage the 181-D pumping system and include capabilities for remote operations and monitoring. The existing electrical system will be modified to support the new pumps; including replacement or reuse of existing electrical transformers and associated equipment. Replaced electrical transformers may contain polychlorinated biphenyls (PCBs). Old pump and pipeline flange gaskets and other debris may be asbestos-containing materials. Old pump motor housings and pipelines may have been coated with lead-based paint. All equipment, materials, and other debris containing PCBs, asbestos, or lead-based paint will be removed, handled, packaged, and disposed in accordance with applicable federal, state, and local regulations; and Hanford Site protocols, policies, and procedures. Workers will be properly trained and work in accordance with Health and Safety Plans, as required.

Approximately 1,500-feet of 24-inch high density polyethylene (HDPE) pipe will be installed along the primary pipeline route from the 181-D Pump House to the existing Export Water System pipeline (the secondary pipeline route is approximately 3,000-feet long). Existing utility corridors will be used to the extent possible for pipeline excavations. A trench approximately 35-feet wide will be excavated to install the new pipeline. A pipeline routing corridor approximately 100-feet wide will be established for work activities and construction material staging. Pipeline trench excavations will not exceed a depth of 10-feet below ground surface.

Mission Support Alliance (MSA) Environmental Compliance performed an ecological resources pedestrian survey of the project area on March 11, 2013 (ECR-2013-100-028). The primary pipeline route passes through a previously disturbed area that is dominated by cheatgrass, Sandberg's bluegrass, non-native weedy species, and scattered gray rabbitbrush. Signs of mule deer were observed. The primary pipeline route tie-in point approaches within 100-feet of a recently installed artificial bat roost tower. Workers will use caution to avoid and not disturb the bat roost. The proposed action is not expected to adversely affect the bat roost. The secondary pipeline route closely follows existing roads within 100-D Area and there is little vegetation that would be disturbed.

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No plant or animal species protected under the Endangered Species Act, candidates for such protection, or species listed by Washington State as threatened or endangered were observed in the vicinity of the project area. There is always the potential for birds to nest within the project area on the ground, on buildings, or on equipment. The nesting season is from mid-March to mid-July. The active nests (containing eggs or young) of migratory birds are protected by the Migratory Bird Treaty Act (MBTA). The MBTA makes it illegal for people to "take" migratory birds, their eggs, feathers, or nests. "Take" is defined in the MBTA to include by any means or in any manner, any attempt at hunting, pursuing, wounding, killing, possessing, or transporting any migratory bird, nest, egg, or part thereof. Personnel working in the project area will be instructed to watch for nesting birds. If any nesting birds (if not a nest, a pair of birds of the same species or a single bird that will not leave the area when disturbed) are encountered or suspected, or bird defensive behaviors (flying at workers, refusal to leave the area, strident vocalizations) are observed within the project area, an Ecological Resource Specialist will be contacted for further guidance. No adverse ecological resource impacts are anticipated from the proposed action if these recommendations are followed.

Portions of the project area are within 1/4 mile of the Columbia River. However, no floodplains or wetlands, as defined by 10 CFR 1022.4, will be adversely affected. Areas with special federal or state designations (national monuments, natural landmarks, wild and scenic rivers, wildlife refuges, scenic areas, or marine sanctuaries) will not be adversely affected. No prime or unique farmland, other farmland of statewide or local importance, or special sources of water (sole-source aquifers, wellhead protection areas) will be adversely affected.

A Cultural and Historic Resources review of the project area was conducted by the MSA Cultural and Historic Resources Program on April 2, 2013 (HCRC-2013-100-028). The review determined that all "National Historic Preservation Act" Section 106 requirements have been previously met as documented in the "Cultural Resources Review for the Field Remediation and Related Activities for the 100-D/DR Reactor Area" (HCRC-2011-100-056). The cultural and historic resources review was approved by DOE-RL on April 5, 2013. No properties of historic, archaeological, or architectural significance to federal, state, or local governments or recognized Indian Tribes; or eligible for listing on the "National Register of Historic Places" will be adversely affected.

Intermittent monitoring by a Cultural Resources Specialist will be required for ground disturbing activities conducted in the project area adjacent to Pump House Loop Road if the secondary pipeline route is utilized. Although no impacts to cultural or historic resources are anticipated in the project area, workers will be directed to watch for cultural materials (bones, stone tools, mussel shell, cans, bottles) during work activities. If any cultural materials are encountered, then work in the vicinity of the discovery will stop until a Cultural Resources Specialist has been notified, the significance of the find assessed, appropriate Indian Tribes notified, and if necessary, arrangements made for mitigation of the find.

The proposed action is addressed by 10 CFR 1021, Subpart D, Appendix B, Categorical Exclusion (CX) B5.2, "Modifications to Pumps and Piping." This CX covers "Modifications to existing pump and piping configurations (including, but not limited to, manifolds, metering systems, and other instrumentation on such configurations conveying materials such as air, brine, carbon dioxide, geothermal system fluids, hydrogen gas, natural gas, nitrogen gas, oil, produced water, steam, and water). Covered modifications would not have the potential to cause significant changes to design process flow rates or permitted air emissions."

Portions of the proposed action are also covered by several other categorical exclusions including the following:

- 10 CFR 1021, Subpart D, Appendix B, B1.15, "Support Buildings and Support Structures." This CX addresses the siting, construction, modification, and operation of support structures within or contiguous to an already developed area (where active utilities and roadways are readily accessible). Covered support structures include those for fire protection.
- 10 CFR 1021, Subpart D, Appendix B, B1.16, "Asbestos Removal." This CX addresses the removal of asbestos-containing materials in accordance with applicable requirements (40 CFR 61, 40 CFR 763, 29 CFR 1910, and 29 CFR 1926); including certification of removal contractors and technicians.
- 10 CFR 1021, Subpart D, Appendix B, B1.17, "Polychlorinated Biphenyl Removal (PCB)." This

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CX addresses removal of PCB-containing items (including, but not limited to, transformers and capacitors), PCB-containing oils flushed from transformers, PCB-flushing solutions, and PCB-containing spill materials in accordance with applicable requirements (40 CFR 761).

- 10 CFR 1021, Subpart D, Appendix B, B1.34, "Lead-Based Paint Containment, Removal, and Disposal." This CX covers the containment, removal, and disposal of lead-based paint in accordance with applicable requirements (40 CFR 745).

- 10 CFR 1021, Subpart D, Appendix B, B5.4, "Repair or Replacement of Pipelines." This CX covers the repair, replacement, upgrading, rebuilding, or minor relocation of pipelines within existing rights-of-way, provided that the actions are in accordance with applicable requirements. Pipelines may convey materials including, but not limited to, air, brine, carbon dioxide, geothermal system fluids, hydrogen gas, natural gas, nitrogen gas, oil, produced water, steam, and water.

This NEPA Review Screening Form is for application of an "activity-specific" categorical exclusion to a proposed action (Project L-781) that is non-routine and non-recurring. Similar projects conducted in the future to modify pumps and piping associated with the Export Water System will require a separate NEPA determination and approval by the DOE-RL NEPA Compliance Officer.

III. Reviews (if applicable):

Biological Review Report #: ECR-2013-100-028; Letter MSA-1301508 dated April 9, 2013

Cultural Review Report #: HCRC-2013-100-028; Letter MSA-1301508 dated April 9, 2013

Additional Attachments:

Aerial photograph of project area.

IV. Existing NEPA Documentation

YES NO

Is the proposed action evaluated in a previous EA, EIS, or under CERCLA?

If "NO," proceed to Section V. If "YES," List EA, EIS, or CERCLA Document(s) Title and Number:

Not Applicable

And then complete Section VI. Provide electronic copy of Initiator/ECO signed NRSF to DOE NCO for information only. DOE NCO signature is not required.

V. Categorical Exclusion

YES NO

Does the proposed action fall within a class of actions that is listed in Appendixes A or B to Subpart D of 10 CFR Part 1021?

Are there extraordinary circumstances related to the proposal that may affect the significance of the environmental effects of the proposal?

Is the proposal connected to other actions with potentially significant impacts or result in cumulatively significant impacts (not precluded by 40 CFR 1506.1 or 10 CFR 1021.211)?

List CX to be applied and complete Categorical Exclusion Integral Elements (where an action might fit within multiple CXs, use the CX that best fits the proposed action):

10 CFR 1021, Subpart D, Appendix B, CX B5.2, "Modifications to Pumps and Piping"

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Categorical Exclusion Integral Elements

	YES	NO
Does the proposed action threaten a violation of applicable statutory, regulatory, or permit requirements for environmental, safety, or health, including DOE and/or Executive Orders?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Does the proposed action require siting, construction, or major expansion of waste storage, disposal, recovery, or treatment facilities?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Does the proposed action 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Does the proposed action adversely affect environmentally sensitive resources?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Does the proposed action involve genetically engineered organisms, synthetic biology, governmentally designated noxious weeds, or invasive species such that the action is NOT contained or confined in a manner designed, operated, and conducted in accordance to applicable requirements to prevent unauthorized release into the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

If "NO" to all Categorical Exclusion Integral Elements questions above, complete Section VI, and provide to DOE NCO for final Approval/Determination and signature in Section VII.

If "YES" to any of the Categorical Exclusion Integral Elements questions above, contact DOE NCO for additional NEPA Review.

VI. Responsible Contractor Signatures

	Name (Printed)	Signature	Date
Initiator	Jerry W. Cammann, MSA NEPA-SME	<i>Jerry W. Cammann</i>	7/15/13
Cognizant Environmental Compliance Officer			

VII. Approval/Determination

DOE NEPA Compliance Officer: Clifford E. Clark, NEPA Compliance Officer (NCO)

Based on my review of information conveyed to me and in my possession (or attached) concerning the proposed action, as NEPA Compliance Officer (as authorized under DOE Order 451.1B), I have determined that the proposed action fits within the specified class of action:

NCO Determination: CX EA EIS

Signature: *Clifford E. Clark*

Date: 7/22/2013