

**NEPA REVIEW SCREENING FORM**  
**for Actions Included in CXs**

Document ID #:  
DOE/CX-00068Rev5

**I. Project Title:**

Annual Categorical Exclusion for PNNL Projects involving small-scale research and development, laboratory operations, and pilot projects on the Hanford Site(B3.6)

**II. Describe the proposed action, including: location, time period over which proposed action will occur, project dimension (e.g., acres displaced/disturbed, excavation length/depth), area/location/number of buildings. Attach maps and drawings, as applicable. Describe existing environmental conditions and potential for environmental impacts from the proposed action. If the proposed action is not a project, describe the action or plan.**

Pacific Northwest National Laboratory (PNNL) and its subcontractors perform siting, construction, modification, operation, and decommissioning of facilities for small-scale research and development projects; conventional laboratory operations (such as preparation of chemical standards and sample analysis); and small-scale pilot projects (generally less than 2 years) frequently conducted to verify a concept before demonstration actions, provided that construction or modification would be within or contiguous to a previously disturbed or developed area (where active utilities and currently used roads are readily accessible). Not included in this category are demonstration actions, meaning actions that are undertaken at a scale to show whether a technology would be viable on a larger scale and suitable for commercial deployment.

The facilities associated with these projects must provide appropriate safety systems, exhaust ventilation, air filtration, and other confinement or control appropriate to the nature of the materials and equipment used in the operation. Activities include, but are not limited to, the following: sample and standards prep, routine management of laboratory reagents and materials; chemical, physical, and/or biological analysis of samples of environmental media, wastes, products, or other materials; treatability studies; radiation-monitoring equipment calibration, maintenance, characterization, or verification; radiological separations studies, neutron activation, and other radiological research; shielded facilities operation and use of sealed sources in research and testing; simulant development and testing; waste-form modeling and life-cycle testing; use of specialized sampling and analytical equipment and instrumentation such as mass and infrared spectrometers, lasers, transmission and scanning electron microscopes, and nuclear magnetic resonance spectrometers; thermoanalytical research and testing techniques; carbon management research and development; robotics and automation research and development; transportation technology research and development; industrial process efficiencies and energy utilization research; fuels/bio-fuels development and testing; bio-based product research, testing and development; imaging technology research and development; catalysis research and development; laboratory fisheries and other aquatic research; energy research and technology development, diagnostics and controls; purchase/use of analytical/research instruments and equipment for bench-scale use. Associated actions could include minor modifications to facilities, rooms, equipment, and instruments if in direct support of bench-scale, small-scale R&D, or pilot project laboratory operations.

Associated activities may include noise, air emission, liquid effluent, and waste generation. These will be managed in accordance to and in compliance with DOE orders and federal or state regulations and guidelines, or with applicable permits. In all instances, the demand for resources and environmental impacts resulting from implementation of these proposed activities would be small and temporary in nature.

The actions covered under this Annual CX would occur within or near buildings, structures, infrastructures, and equipment, but may not be limited to, those listed in Table 2 of the Operational Agreement between the Office of Science, Pacific Northwest Site office, and the Office of Environmental Management, Richland Operations Office, Revision 2, December 2015.

Actions performed under this Annual CX shall not individually or cumulatively have a significant effect on the human environment. This Annual CX shall only be applied to actions that meet the requirements (i.e., 10 CFR 1021.410) and conditions that are "integral elements" (i.e., 10 CFR 1021, Subpart D, Appendix B) for categorically excluding actions under the provisions of the NEPA regulations. There shall be no extraordinary circumstances where normally excluded actions may have significant effects on the human environment.

To avoid extraordinary circumstances potentially affecting ecological resources, ecological resources reviews shall be performed in accordance with established protocols, policies, and procedures to identify plant and animal species for protection under the Endangered Species Act,

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candidates for protection, or listing by federal or state agencies as threatened or endangered consistent with DOE/RL-96-32, "Hanford Site Biological Resources Management Plan" or other applicable guidance documents and agreements. Caution shall be exercised during the bird nesting season (mid-March to mid-July). If nesting birds, pair of birds of the same species, or bird defensive behaviors is observed, then work shall stop and a qualified Ecological Resources Specialist shall be contacted for guidance. Actions that potentially affect ecological resources shall require a resources review and clearance before proceeding. This includes, but may not be limited to, actions that require an excavation permit; disturb the ground; remove or modify dead or living vegetative cover; occur within a Bald Eagle exclusion zone; expand roadways/parking lots; require off-road travel; involve unusual noise, light, or chemicals that may affect wildlife; located on the Hanford Reach National Monument; located in a posted ecologically sensitive area; conducted on the outside of structures; conducted in abandoned structures; and have the potential to alter or affect the living environment. If an ecological resources review determines potentially adverse impacts, then appropriate mitigation actions shall be identified and implemented to avoid, minimize, eliminate, rectify, or compensate the impacts.

To avoid extraordinary circumstances potentially affecting cultural resources, cultural resources reviews shall be performed in accordance with established protocols, policies, and procedures to identify resource protection consistent with the "Programmatic Agreement among the U.S. Department of Energy, Advisory Council on Historic Preservation, and Washington State Historic Preservation Office for Maintenance, Deactivation, Alteration, and Demolition of the Built Environment on the Hanford Site" (DOE/RL-96-77); the "Hanford Site Manhattan Project and Cold War Era Historic District Treatment Plan (DOE/RL-97-56); the "Cultural Resources Management Plan" (DOE/RL-98-10), and other applicable guidance documents and agreements (e.g. "Gable Mountain and Gable Butte Management Plan" [DOE/RL-2008-17]). Cultural sensitivity shall be determined using site location topographic maps, geographic information system databases, and/or pedestrian surveys to identify proximity to cultural resources (i.e., historic buildings, traditional cultural properties, artifacts, and previously recorded archaeological sites).

Actions located within the geographic boundary of a significant cultural resource or historic property, Traditional Cultural Property (including but not limited to Rattlesnake Mountain, Gable Mountain, Gable Butte, Mooli Mooli, and other undocumented areas), cemetery or burial sites, or within 400 meters of the Columbia River may be located in culturally sensitive areas.

DOE/RL-96-77 exempts from cultural resources review certain actions that take place indoors or do not affect certain facilities identified in Tables A.5 through A.7 of DOE/RL-97-56. These actions are listed in Stipulation III of DOE/RL-96-77 and include, but may not be limited to, routine maintenance; replacement in kind; refinishing in kind; energy conservation measures; security and personal safety systems; actions associated with post- cold war buildings and structures; asbestos abatement actions; and facility transition actions to deactivate, de-energize, or isolate systems. Exemptions are also provided for mobile trailers, modular buildings, subsurface structures, storage tanks, wells/boreholes, and towers. If the action affects a facility that appears in Tables A.5 or A.6 of DOE/RL-97-56 and the undertaking is not exempt based on Section III.B of DOE/RL-96-77, then a cultural resources review shall be performed.

Historic structures or locations that require cultural resources review and clearance include, but may not be limited to, The Hanford Site Manhattan Project National Historic Park, including the Bruggeman Agricultural Complex Warehouse, White Bluffs Bank, Hanford High School, B Reactor and Hanford Irrigation District Pump House. Other historic structures and locations include, the White Bluffs Log Cabin, Hanford Townsite, Hanford Substation, White Bluffs Townsite, AAA Military Camps, NIKE Missile Base, and selected historic buildings.

Workers shall be directed to watch for cultural materials (i.e., bones, stone tools, mussel shells, cans, bottles, etc.). If encountered, then work near the discovery shall stop until a qualified Cultural Resource Specialist is contacted, the significance of the find determined, appropriate Tribes notified, and mitigation arranged and implemented, as needed.

PNNL uses an Electronic Prep and Risk (EPR) System to screen project impacts. It shall be

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incumbent upon the Environmental Compliance Officers, NEPA Subject Matter Expert, or other NEPA trained individuals to assure that the requirements and conditions discussed herein are met prior to applying this Annual CX to PNNL actions. They shall also be responsible for assuring that no extraordinary circumstances exist where normally excluded actions may have significant effects on the human environment.

This annual CX is approved pursuant to 10 CFR 1021.410(f) which states that "proposed recurring actions undertaken during a specified time period such as routine maintenance for a year, may be addressed in a single categorical exclusion determination after considering the potential aggregated impacts" to assure no extraordinary circumstances exist. This annual CX will expire one year from the date authorized by the Hanford NEPA Compliance Officer and will require reauthorization on an annual basis.

**III. Applicable Reviews (attach to NRSF):**

Biological Review Report #: \_\_\_\_\_

Cultural Review Report #: \_\_\_\_\_

Additional Attachments: \_\_\_\_\_

**IV: Existing Documentation:**

Are the impacts of the proposed action evaluated in a previous EA, EIS, or CERCLA document?  Yes  No

If "YES", use Site Form [A-6006-948](#), *Actions Adequately Evaluated in NEPA or CERCLA Document*

**V. Categorical Exclusion:**

Does the proposed action fall within a category of actions that is listed in Appendixes A or B to Subpart D of 10 CFR 1021? If extraordinary circumstances or integral elements would preclude the use of a CX, check "No".  Yes  No

Are there extraordinary circumstances related to the proposal that may affect the significance of the environmental effects of the proposal?  Yes  No

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)?  Yes  No

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, B3.6 "Small-scale research and development, laboratory operations, and pilot projects"

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**Categorical Exclusion Integral Elements:**

Would 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"/> Yes <input checked="" type="checkbox"/> No
Would the proposed action require siting, construction, or major expansion of waste storage, disposal, recovery, or treatment facilities?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Would 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"/> Yes <input checked="" type="checkbox"/> No
Would the proposed action adversely affect environmentally sensitive resources?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Would 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 with applicable requirements to prevent unauthorized release into the environment?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

If "NO" to all Integral Elements questions above, complete Section VI, and provide NRSF to DOE NCO for review.  
If "YES" to any of the Categorical Exclusion Integral Elements questions above, contact DOE NCO for additional NEPA Review.

**VI. Responsible Contractor Signatures:**

**Initiator:**

Michael R. Sackschewsky



6/15/2017

Name *Print*

Signature

Date

**Cognizant Environmental Compliance Officer:**

Name *Print*

Signature

Date

**VII. DOE Approval/Determination**

DOE NEPA Compliance Officer: Diori L. Kreske, 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), the proposed action fits within the specified class of action:

NCO Determination:  CX      \*NCO Recommendation:  EA     EIS

  
Signature

6/29/17  
Date

\*NRSF A-6006-950 would be completed by responsible contractor