

## **Sitewide Categorical Exclusion for Site Characterization and Environmental Monitoring**

### **Introduction**

As defined in the U.S. Department of Energy’s (DOE) Richland Operations Office Integrated Management System Procedure, *NEPA Analysis at Hanford*, a sitewide categorical exclusion is:

An application of DOE categorical exclusions described in 10 CFR 1021, Appendices A and B, which may apply to Hanford Site proposed actions (activities) that are “sitewide” in nature and extent, which the cognizant DOE Hanford NCO has determined fit within the scope (i.e., same nature and intent, and of the same or lesser scope) of DOE categorical exclusions described in 10 CFR 1021 Appendices A and B. The cognizant DOE Hanford NCO may issue specific sitewide categorical exclusions for use on proposed actions in which separate DOE approval to proceed is not required.

The nature of the proposed action subject of this sitewide categorical exclusion, as well as guidance to implement this exclusion as described herein, may be revised to reflect contemporary experience from the application of this exclusion; changes to, or development of, relevant policy and guidance; and changes to DOE’s categorical exclusions resulting from future rulemakings.

### **Proposed Action**

The DOE’s Richland Operations Office and Office of River Protection propose to perform site characterization and environmental monitoring activities on and nearby the Hanford Site.

### **Location of Action**

On and near the Hanford Site, Richland, Washington.

### **Description of Proposed Action**

DOE’s proposed action is to perform site characterization and environmental monitoring activities on and nearby the Hanford Site. Two types of activities would be performed – intrusive and non-intrusive. Intrusive activities would include, but not be limited to, installing wells in groundwater and the vadose zone, subsequently monitoring groundwater and the vadose zone, and performing groundwater tracer tests. Intrusive tests also would involve excavating and sampling test pits. Non-intrusive activities would consist primarily of site surveys and collection of environmental media. In addition, DOE would site, construct, and operate one or more small-scale laboratory buildings or renovate rooms in existing buildings to facilitate sample handling and analysis. All such activities would be undertaken in accordance with DOE orders, and Federal and state regulations and guidance.

Groundwater and vadose zone wells and test pits would be installed as needed, in and near Resource Conservation and Recovery Act (RCRA) and Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) facilities, operable units, and waste management facilities. The monitoring wells and test pits are intended to detect contaminant releases to the groundwater and vadose zone, facilitate the remediation and closure phases of each site, and ensure remediation is effective.

Drilling methods would primarily be standard cable tool, auger, cone penetrometer, sonic drilling, or rotary drilling technologies. When the wells are no longer necessary, they would be abandoned or closed in accordance with state regulations.

Site characterization and environmental monitoring activities that are either non-intrusive or would involve minimal, small-scale intrusion are also included under this proposed action. These activities would include geophysical, radiological and chemical surveys and monitoring; meteorological and air quality sampling; and cultural and biological resources surveys and monitoring.

Geophysical techniques would include, but not be limited to, electro-magnetic surveys, site surveying and mapping, soil sampling, ground penetrating radar surveys, seismic monitoring, telemetry, and borehole spectral gamma logging techniques.

Radiological and chemical techniques would include, but not be limited to, gamma scintillation, thermoluminescent dosimetry, groundwater tracer studies, soil gas surveys, x-ray fluorescence testing, radiological surveys, and sampling, transport, and laboratory analysis of environmental samples.

Meteorological data, such as wind speed and direction, would be collected after installation of weather stations. Air quality pollutants, such as carbon monoxide and particulate matter, also would be sampled.

Cultural surveys for archaeological and historical resources would include activities such as facility inspections, ground surveys, inventory of archaeological resources, exploratory test pits and trenches, and core and auger tests.

Ecological surveys, biological characterization, and environmental monitoring would include, but not be limited to, field surveys and biotic sampling (agricultural products, flora, and fauna).

Environmental monitoring would include river stage monitoring, flow measurements, and surface water and sediment sampling.

Consistent with DOE's procedures that implement NEPA (10 CFR 1021), DOE also would undertake actions foreseeably necessary to implement this proposed action. Therefore, under this proposed action, DOE would transport construction equipment (e.g., drill rigs, backhoes) to specific locations for which site characterization and monitoring, and laboratory construction or

room renovation would be undertaken. As part of room renovation, existing utilities, such as electricity and heating/cooling and communications, may need to be modified to permit safe and effective operation of the analytical laboratory.

Use of the construction equipment and associated vehicles would generate air pollutants from combustion and limited ground-disturbance, local noise levels would increase, water may be used for dust suppression, and nonrenewable resources such as petroleum products would be consumed. In all instances, the demand for resources and environmental impacts resulting from implementation of these proposed activities would be small and temporary in nature.

In addition, intrusive sampling, such as the development of test pits or renovation of rooms in an existing building, may generate small quantities of hazardous, solid, radioactive, polychlorinated biphenyls and/or asbestos wastes. Moreover, intrusive sampling in contaminated areas may result in contamination of the equipment. In such instances, DOE would decontaminate the equipment and all waste (from decontamination and sampling) would be packaged, staged for transport, transported, and disposed of at onsite or offsite facilities. All such activities would be undertaken in compliance with DOE orders, and Federal and state regulations and guidelines.

### **Applicable Categorical Exclusion**

DOE's Categorical Exclusion B3.1:

Onsite and offsite site characterization and environmental monitoring, including siting, construction (or modification), operation, and dismantlement or closing (abandonment) of characterization and monitoring devices and siting, construction, and associated operation of a small-scale laboratory building or renovation of a room in an existing building for sample analysis. Activities covered include, but are not limited to, site characterization and environmental monitoring under CERCLA and RCRA. Specific activities include, but are not limited to:

- (a) Geological, geophysical (such as gravity, magnetic, electrical, seismic, and radar), geochemical, and engineering surveys and mapping, including the establishment of survey marks;
- (b) Installation and operation of field instruments, such as stream-gauging stations or flow-measuring devices, telemetry systems, geochemical monitoring tools, and geophysical exploration tools;
- (c) Drilling of wells for sampling or monitoring of groundwater or the vadose (unsaturated) zone, well logging, and installation of water-level recording devices in wells;
- (d) Aquifer response testing;
- (e) Installation and operation of ambient air monitoring equipment;

- (f) Sampling and characterization of water, soil, rock, or contaminants;
- (g) Sampling and characterization of water effluents, air emissions, or solid waste streams;
- (h) Installation and operation of meteorological towers and associated activities, including assessment of potential wind energy resources;
- (i) Sampling of flora or fauna; and
- (j) Archeological, historic, and cultural resource identification in compliance with 36 CFR part 800 and 43 CFR part 7.

### **Implementing Guidance**

This sitewide categorical exclusion may be applied to activities under the proposed actions that are “sitewide” in nature and extent. For example, this exclusion may be implemented as a one-time yearly application in instances where the proposed action would involve site characterization, monitoring and subsequent sample analysis from locations across the Hanford Site.

This sitewide categorical exclusion also may be applied to proposed actions in which land disturbance would be incidental to the action. In contrast, it may not be applied, for example, if the action were to require the construction of an access road and the subsequent development of drill pads or test pits on previously undisturbed land.

Application of this sitewide categorical exclusion requires compliance with the Richland Integrated Management System Procedure, *NEPA Analysis at Hanford*. Sitewide categorical exclusions are determined solely by the cognizant DOE Hanford NCO and are applied through a screening process which documents that the proposed action:

1. Fits within the scope of actions identified in a DOE Hanford NCO-approved sitewide categorical exclusion
2. Meets the eligibility requirements for Appendix B categorical exclusion (“integral elements”) of 10 CFR 1021, Subpart D, Appendix B, B(1) through B(4)
3. Is not connected to other actions with potentially significant impacts (see 40 CFR 1508.25(a)(1)) or with cumulatively significant impacts (see 40 CFR 1508.25(a)(2))
4. Is absent extraordinary circumstances that may affect the significance of the environmental effects of the proposed action
5. Is not located on nor directly impacts the Hanford Reach National Monument, Rattlesnake Mountain, Gable Mountain, Gable Butte, within ¼ mile of the Columbia River, other known Traditional Cultural Properties, or properties of historic, archaeological or architectural significance designated by Federal, state or local governments or properties eligible for listing on the National Register of Historic Places, and
6. Is not located on nor cause direct impacts to sensitive species or their habitats, such as old-growth sagebrush.

This sitewide categorical exclusion may not be applied to proposed actions that involve the construction of new buildings or structures whose primary purpose is other than sample analysis from site characterization and environmental monitoring. It also may not be applied to actions involving existing buildings in which renovations would be in addition to those required to develop the requisite analytical capability.

**Compliance Action**

I have determined that the proposed action meets the requirements for Categorical Exclusion B3.1 and that there are no extraordinary circumstance related to this action that may affect the significance of the environmental effects of the action; this action is not “connected” to other actions with potentially significant impacts, is not related to other proposed actions with cumulatively significant impacts, and is not precluded by 40 CFR 1506.1 or 10 CFR 1021.211. All activities to be conducted under this Sitewide Categorical Exclusion Determination must be documented with the NEPA Review Screening Form (see Hanford Site Form RL-721) pursuant to *NEPA Analysis at Hanford* and demonstrably meet the criteria described in 1 through 6 above. Accordingly, I have determined that the proposed action may be categorically excluded from further NEPA review and documentation. This exclusion is being implemented as a one-time yearly application for the proposed action described herein.

  
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Ralph W. Russell, DOE NEPA Compliance Officer

  
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Date