

SECTION A. INL – Site Wide Well Management and Long-Term Stewardship (LTS) Activities

SECTION B. Project Description

Well management activities include decommissioning (abandonment) of inactive wells and injection wells at the Idaho National Laboratory (INL) Site. The wells to be decommissioned are located both within, and outside of the boundaries of the various INL facilities. The proposed action will address all classes of wells. Potable water production wells are excluded from this EC.

The wells will be decommissioned in a manner to protect water resources, in accordance with the regulatory requirements associated with the well. This may be accomplished by filling in the wells with an appropriate material such as bentonite, grout, or cement. As needed, the well casings, vapor port tubes, cables, or other miscellaneous components may be cut near or below ground surface to eliminate potential obstructions. Soil disturbance associated with a typical well decommissioning is anticipated to be less than 20 sq. ft at the surface. Typical decommissioning may use a backhoe or jack hammer to breakup existing concrete pads and might have minimal excavation around the casing. If removal of a shallow injection well is necessary, it is anticipated that mechanical methods such as a backhoe may be used. Closure of shallow injection well may include excavation in excess of 10 feet.

Well management activities also include well maintenance. Specifically, groundwater well maintenance and support activities for CERCLA groundwater monitoring performed at the INL. This program detects and controls deterioration of well systems, repairs damaged well components, cleans well screens and boreholes, standardizes well completion components, collect borehole geophysical logs, and assist in other well related activities (sampling), as requested. Primary activity involves the repair or replacement of damaged pumps to allow for groundwater sampling, and the installation, reconfiguration, or removal of instrumentation and packers. Sampling activities include those needed to obtain characterization data to maintain or decommission wells.

LTS actions include site inspections and monitoring, implementing repairs as needed (such as repairs to engineered covers and soil barriers), and revegetating disturbed sites. It also specifically addresses weed management, which includes weed growth evaluation and herbicide application. Herbicide application will be performed by a subcontractor, who must be licensed by the State of Idaho. The subcontractor is responsible for proper management of chemicals, materials, and waste generated during the course of completing the scope of work.

The scope of this project covers the entire Idaho National Laboratory Site.

SECTION C. Environmental Aspects / Potential Sources of Impact

1. Air Pollutants – Fugitive emissions in the form of particulate matter may be generated from breaking up the concrete pads around the wells and from soil disturbance (e.g., excavation). All fugitive emissions should be controlled. Project personnel believe some wells are located in radiologically-contaminated areas.

Radiological emissions to the environment must be determined for demonstrating compliance with the NESHAP Standard [see 40 CFR 61.93(a)] and submitted for reporting in the INL NESHAP Annual Report per 40 CFR 61.94. If any fugitive radiological emissions are released, the performing organization Project Manager or Source Owner/Manager shall ensure that the calendar year emissions are quantified and reported to Environmental Programs by March 15 for the preceding year.

Fugitive emissions from weed spraying actions will be controlled. Herbicides may be applied only when sustained wind conditions are at or below 10 mph, or within wind conditions identified on the product label.

3. Radionuclide Release/Protection of the Public and the Environment – The proposed action could release radionuclides to the environment however, the potential is very low. Releases would not exceed as low as reasonably achievable goals as the releases are far below applicable regulatory standards (e.g., NESHAPS) and satisfy the exemption criteria.

4. Chemical Use and Storage – Chemicals, such as petroleum products, grout, and other concrete products will be used in support of the well management actions. Project personnel will use non-hazardous chemical substitutes in the place of

hazardous chemicals as long as the non-hazardous substitutes meet the requirements/ specifications of the requester. Spill prevention/minimization measures will be employed during storage and use of chemicals/fuels. Affirmative Procurement practices will be used as guidance in procuring applicable chemicals and materials. Do not use herbicide products classified as restricted use pesticides.

Chemicals used to control weeds will be supplied by the subcontractor. In compliance with the Statement of Work, the subcontractor will follow the industry-approved weed control practices required of an Idaho Licensed pesticide applicator and will comply with the manufacturer's instruction on the label for the herbicide product and all information in the SDS such as precautions for safe handling and use, and control measures. In addition, the subcontractor will not store or keep weed control materials or equipment at an INL facility when the subcontractor is not performing work.

Obtain approval from the State of Idaho prior to any application of pesticides, herbicides, or fertilizers to a well lot (i.e., generally a radius of 50 ft surrounding a drinking water well). Maintain records of State of Idaho approvals to apply pesticides, herbicides, or fertilizers to a well lot.

Do not apply pesticides, herbicides, or fertilizers within 5 ft of monitoring wells or deep injection wells.

5. Contaminated Site Disturbance – Project personnel anticipate some wells to be located in radiologically-contaminated areas. Soil disturbance will be minimized at these locations. In those areas where subsurface contamination may be present, soil disturbance will be minimized, if possible, by leaving the concrete pad in place and cutting the casing at the top of the concrete pad and backfilling the casing.

Well management and LTS actions that disturb CERCLA soils will be assessed to determine if a CERCLA Notice of Soil Disturbance (NSD) is required per the INL Site-wide Institutional Controls Plan. If required, a NSD will be obtained

6. Cultural/Historical Resource Disturbance – Prior to performing well management or LTS activities in areas outside of the boundaries of INL Site facilities, project personnel must obtain a cultural resource clearance.

All vehicle travel will be restricted to existing roads, trails, and established well head areas to prevent impact to cultural resources in unsurveyed areas. A Stop Work will be evoked immediately should unusual materials (i.e., bones, flakes of obsidian, "arrowheads" or other artifacts, rusty cans, etc.) be encountered.

7. Discharge to Wastewater Systems or Groundwater – Work will involve the decommissioning of inactive wells, including monitoring wells, injection wells, gas sampling ports, lysimeters, instrumented boreholes, and other wells regulated by the IDWR. Each well and associated groundwater will be protected from sources of contamination during decommissioning. Decommissioning of all well abandonments will follow the applicable regulatory requirements found at IDAPA 37.03.03, IDAPA 37.03.09, and company procedures. Decommissioning of potable water wells will be in accordance with IDAPA 58.01.08. Regulatory reviews and approvals will be obtained prior to decommissioning, as necessary, including the submittal of the appropriate closure.

8. Drinking Water Contamination – Decommissioning of potable water wells will be performed in accordance with IDAPA 58.01.08. Regulatory reviews and approvals will be obtained prior to decommissioning, as necessary, including the submittal of the appropriate closure documentation.

9. Waste Generation and Management – Hazardous waste determinations will be performed on waste streams to develop the appropriate waste management practices. Project personnel do not anticipate generating hazardous or mixed wastes when performing well management or LTS actions. However, should hazardous or mixed waste be generated, the waste streams will be segregated, packaged, and stored in a CERCLA storage area until it is transported to an off-site permitted disposal facility or treated and/or disposed onsite (e.g. purge water to the ICDF ponds, OU 1-07B purge water to the NPTF).

LTS actions may generate waste in the form of excess herbicide, herbicide containers, and other materials contaminated by herbicides. Waste disposal will be the responsibility of the subcontractor. To dispose of this waste at the INL, approval must be requested in writing.

Project personnel anticipate generating limited quantities of radioactive waste. Radioactive waste generated from the well management activities will be disposed of at the Idaho CERCLA Disposal Facility or at an approved off-Site facility through Waste Generator Services.

The estimated quantity of industrial waste generation is 50 gallons and will include materials used to clean hydraulic spills, personal protection equipment, and other miscellaneous waste. All industrial waste will be disposed of in the INL Landfill Complex.

10. Material or Waste Handling and Trans. - All applicable waste would be diverted from disposal in the landfill where conditions allow. Project personnel will use every opportunity to recycle, reuse and recover materials and divert waste from the landfill when possible. The project will practice sustainable acquisition, as appropriate and practicable, by procuring construction materials that are energy efficient, water efficient, are bio-based in content, environmentally preferable, non-ozone depleting, have recycle content or are non-toxic or less toxic alternatives. New equipment will meet either the Energy Star or SNAP requirements as appropriate (see <https://.sftool.gov/GreenProcurement>).

11. Interaction with Wildlife/Habitat - All the well locations have been previously disturbed during the initial well drilling activities. Vegetation at the work locations will be mowed, as necessary prior to well management. Revegetation will be implemented, if necessary. Decommissioning Class V shallow injection wells will require excavating for removal. The well locations outside of facility boundaries are near or on established roads. No new roads will be created and all vehicles will remain on existing road ways and parking areas.

Prior to performing soil disturbance at the Test Area North facility, all areas within the facility fence boundary will require an ecological survey and clearance prior to disturbing soil except the operations area.

Any activity associated with existing wells or installing new wells located in the Sagebrush Steppe, may have additional requirements.

A nesting bird survey is required for any vegetation removal between April 1 and September 1. In addition, some human activities (including maintenance, mowing and weed management) that occur within 1 km of Sage Grouse leks are restricted between 6:00 p.m. and 9:00 a.m. from March 15 to May 15.

17. Work within areas Subject to Flooding – The well management actions and LTS actions described in this EC are not expected to have a significant impact on the 100-year floodplains described above and the work is not expected to disrupt floodplain dimensions, elevations, flow volumes, or velocities of the Big Lost River, Birch Creek or the INTEC or RWMC watersheds. If the hypothetical flood(s) was (were) to occur, access to the work areas may be temporarily interrupted. Work can resume after floodwaters subside, as access allows.

SECTION D. Determine the Level of Environmental Review (or Documentation) and Reference(s): Identify the applicable categorical exclusion from 10 CFR 1021, Appendix B, give the appropriate justification, and the approval date.

Note: For Categorical Exclusions (CXs) the proposed action must not: 1) threaten a violation of applicable statutory, regulatory, or permit requirements for environmental, safety, and health, including requirements of DOE orders; 2) require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities; 3) 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; 4) adversely affect environmentally sensitive resources. In addition, no extraordinary circumstances related to the proposal exist which would affect the significance of the action, and the action is not "connected" nor "related" (40 CFR 1508.25(a)(1) and (2), respectively) to other actions with potentially or cumulatively significant impacts.

References: B1.3 Routine Maintenance, B2.5, Facility safety and environmental improvements and B3.1, Site characterization and environmental monitoring

Justification: Performing the well management program at the INL and the long-term stewardship activities described are addressed by the referenced categorical exclusions. The action will not result in significant effect to the human environment.

Is the project funded by the American Recovery and Reinvestment Act of 2009 (Recovery Act) Yes No

Approved by Jason Sturm, DOE-ID NEPA Compliance Officer on February 19, 2019.