

# DOE-ID NEPA CX DETERMINATION

## Idaho National Laboratory

### SECTION A. Project Title: ATR Complex Potable Water Well

### SECTION B. Project Description and Purpose:

The Advanced Test Reactor (ATR) needs an additional potable water source. The proposed action drills a new water well and installs a new pump near the current potable water well outside the main perimeter fence at the northeast corner of the ATR Complex. The new system ties into the ATR Complex potable water supply system. The proposed well allows the water supply to be switched from one well to the other to perform maintenance or if one of the pumps fails.

The well location is outside the known zone of perched water, but the well design and drilling uses casing size and techniques to protect the aquifer in the event perched water is encountered. Casing and grout isolates the aquifer from potential contamination in higher zones. The wellhead area also requires mechanical protection, such as bollards, for exposed equipment, structures, or electrical pull boxes. The protection will not impede maintenance or operation.

### SECTION C. Environmental Aspects or Potential Sources of Impact:

#### Air Emissions

Activities addressed by this EC have the potential to contribute to air emissions through:

- Acquiring, using, and dispositioning chemicals
- Exhaust from drilling and other heavy equipment
- Generation of fugitive dust.

#### Discharging to Surface-, Storm-, or Ground Water

Activities addressed by this EC have the potential to contaminate waters of the United States (U.S.) or groundwater through:

- Constructing or modifying drinking water systems and cross connections at the INL
- Maintaining, repairing, or altering drinking water systems and cross connection at the INL
- Using drinking water systems and cross connections at the INL
- Discharging wastewater from the drilling operations to the ground.

#### Disturbing Cultural or Biological Resources

Activities addressed by this EC have the potential to disturb cultural or biological resources through:

- Removing or disturbing native or naturalized vegetation and disturbing soil.

#### Generating and Managing Waste

Well drilling activities are expected to generate several hundred cubic feet of rock cuttings and drilling fluid, most of which would enter fractures in the coreholes. Drilling activities would also generate about 300 cubic feet of basalt and sediment core, all of which would be archived at the INL Core Storage Library for future studies. Personal protective equipment (PPE) and miscellaneous industrial waste would also be generated.

#### Releasing Contaminants

Typical construction chemicals such as fuels, lubricants, adhesives, paints, concrete, concrete cure, asphalt, refrigerants, etc., will be used and will be submitted to chemical inventory lists with associated Safety Data Sheets (SDS's) for approval in the vendor data system prior to use. The Construction Chemical Coordinator will enter these chemicals into the INL Chemical Management Database.

Diesel fuel for operation of drilling equipment would be stored in fuel tanks. Other chemicals such as hydraulic oil may also be used. Because this project would use petroleum products and possibly other potentially hazardous industrial chemicals, there is the potential for release of small amounts of contaminants into the air, water, or soil.

In the event of a spill, notify facility PEL. If the PEL cannot be contacted, report the release to the Spill Notification Team (208-241-6400). Clean up the spill and turn over spill cleanup materials to WGS.

#### Using, Reusing, and Conserving Natural Resources

Activities addressed by this EC have the potential to use, reuse and conserve natural resources related to:

- Consuming potable, industrial or irrigation water
- Generating storm water
- Generating landfill waste or construction wastes

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- Generating recyclable materials
- Engaging in sustainable acquisition practices

**SECTION D. Determine Recommended Level of Environmental Review, Identify Reference(s), and State Justification:** Identify the applicable categorical exclusion from 10 Code of Federal Regulation (CFR) 1021, Appendix B, give the appropriate justification, and the approval date.

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, or similar requirements of Department of Energy (DOE) or Executive Orders; (2) require siting and construction or major expansion of waste storage, disposal, recovery, or treatment or facilities; (3) disturb hazardous substances, pollutants, contaminants, or Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)-excluded petroleum and natural gas products that pre-exist in the environment such that there would be uncontrolled or unpermitted releases; (4) have the potential to cause significant impacts on environmentally sensitive resources (see 10 CFR 1021). In addition, no extraordinary circumstances related to the proposal exist that would affect the significance of the action. In addition, the action is not "connected" to other action actions (40 CFR 1508.25(a)(1) and is not related to other actions with individually insignificant but cumulatively significant impacts (40 CFR 1608.27(b)(7)).

**References:** 10 CFR 1021, Appendix B to Subpart D, item B1.18 categorical exclusion, "Water supply wells."

**Justification:** Project activities described in this EC are consistent with 10 CFR 1021, Appendix B to Subpart D, item B1.18, "Siting, construction, and operation of additional water supply wells (or replacement wells) within an existing well field, or modification of an existing water supply well to restore production, provided that there would be no drawdown other than in the immediate vicinity of the pumping well, and the covered actions would not have the potential to cause significant long-term decline of the water table, and would not have the potential to cause significant degradation of the aquifer from the new or replacement well."

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: 5/23/2018