

# DOE-ID NEPA CX DETERMINATION

## Idaho National Laboratory

**SECTION A. Project Description:** Decommissioning of Shallow Injection Wells (SIW) (13-Test Reactor Area [TRA], 14-TRA, 21-TRA and 26-TRA) at the Advanced Test Reactor (ATR) Complex

**SECTION B. Project Description:**

This project will involve the decommissioning of the following Shallow Injection Wells (SIWs) at the Advanced Test Reactor (ATR) Complex:

13-TRA (Idaho Department of Water Resources [IDWR] Permit Number 34X0001020) located near the northeast corner of building TRA-614,

14-TRA (IDWR Permit Number 34X0001021) located near the northwest corner of building TRA-622,

21-TRA (IDWR Permit Number 34X0001093) located near the northwest corner of building TRA-627, and

26-TRA (IDWR Permit Number 34X0001098) located on the east side of building TRA-638.

Shallow injection wells 13-TRA, 14-TRA, and 21-TRA were used for disposal of steam condensate. Steam condensate was produced by the TRA/Materials Test Reactor (MTR) Steam Generation System. The TRA/MTR Steam Generation System, previously located in building TRA-609 (Compressor Building), provided high-pressure steam to various TRA facilities. The Steam Plant was originally commissioned as part of MTR support facilities in 1950. The Steam Plant consisted of three package-type boilers and associated equipment. The TRA/MTR Steam Generation System has been decommissioned, however, the three SIWs and associated piping, still remain. The New Site Identification (NSI) for all three steam condensate SIW was determined to be a "No Action" site under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) requirements.

Shallow injection well 26-TRA was used for disposal of potable water from a drinking fountain. Because the SIW was used for the disposal of potable water from a drinking fountain, no contamination is expected and a NSI was not initiated.

The same method of decommissioning is proposed for all SIW's except TRA-26. All SIW's are approximately 23 inches in diameter and are bottomless 55 gallon steel drums. Well depth varies for each SIW. The proposed method for closure is to remove and/or cap piping, so that it can no longer discharge into the SIW. The SIW would then be filled with bentonite grout from the soil/gravel bottom to within a couple of inches of the top of the casing and hydrated. Soil and/or gravel would then be placed over the top of the bentonite to the top of the casing. TRA-26 would be filled with soil/gravel and not bentonite since only potable water was discharged to this SIW. The final method for closure must be approved by the Idaho Department of Water Resources.

Projected Start Date: September of 2013

Projected End Date: September of 2013

Estimated Cost: \$ 10,000

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

**Air Emissions** - If fugitive dust is expected during project activities, reasonable precautions will be taken to prevent particulate from becoming airborne. This is in accordance with the methods specified in the Rules for the Control of Air Pollution in Idaho (Idaho Administrative Procedures Act [IDAPA] 58.01.01.650-651). Steps taken to control fugitive dust at the Idaho National Laboratory (INL) Site (such as application of water or other suppressants) must be recorded in the project records. The date, time, location and amount/type of suppressant must be recorded to demonstrate compliance with the INL Title V Air Permit.

**Disturbing Cultural or Biological Resources** - Uncontaminated soil will be placed around the rim of each SIW to prevent tripping hazards. Rad con will survey soil before placement. Safety personnel will evaluate the area of each SIW to ensure all precautions are addressed. If objects of potential archaeological or historical significance (e.g., arrowheads, flints, bones, etc.) are encountered, personnel would discontinue activities in the area and contact the Cultural Resource Management office (Brenda Pace, 526-0916).

**Generated and Managing Waste** - Project activities may generate limited amounts of used personal protective equipment (PPE) and miscellaneous industrial waste. This waste will be disposed of at the INL Landfill Complex through Waste Generator Services (WGS). Project personnel will incorporate waste minimization measures by obtaining reusable laundered PPE where practical. Recycling will be practiced where applicable.

**Releasing Contaminants** - Project personnel will use non-hazardous chemical substitutes in the place of hazardous chemical as long as the non-hazardous substitutes meet the requirements/specifications of the requester. Project personnel will apply spill prevention/minimization measures during chemical use and storage and will reference Affirmative Procurement (Management Control Procedure [MCP]-1185) as guidance to procure appropriate chemicals. Project personnel will maintain an inventory of on-site chemicals purchased from off-site sources and records of any chemical releases. Chemical usage data is directly provided to Department of Energy Idaho Operations Office (DOE-ID) for inclusion in annual Emergency Planning and Community Right-to-Know Act (EPCRA) reports. Project personnel must protect the well and groundwater from sources of contamination during abandonment.

**Using, Reusing, and Conserving Natural Resources** - All applicable waste will be diverted from disposal in the landfill when possible. Project personnel will use every opportunity to recycle, reuse, and recover materials and divert waste from the landfill when

**DOE-ID NEPA CX DETERMINATION**  
**Idaho National Laboratory**

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 recycled content, or are non-toxic or less-toxic alternatives. New equipment will meet either the Energy Star or Significant New Alternatives Policy (SNAP) requirements as appropriate (see <http://www.sftool.gov/GreenProcurement/ProductCategory/14>).

**SECTION D. Determine the Recommended 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.

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 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 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 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:** 10 CFR 1021, Appendix B to Subpart D, item B5.3 "Modification or abandonment of wells."

**Justification:** The proposed action will protect against a potential uncontrolled release of contamination to the aquifer and is consistent with 10 CFR 1021, Appendix B to Subpart D, item B5.3. "Modification (but not expansion) or plugging and abandonment of wells, provided that site characterization has verified low potential for seismicity, subsidence, and contamination of freshwater aquifers, and the actions are otherwise consistent with best practices and DOE protocols, including those that protect against uncontrolled releases of harmful materials. Such wells may include, but are not limited to, storage and injection wells for brine, carbon dioxide, coalbed methane, gas hydrate, geothermal, natural gas, and oil. Covered modifications would not be part of site closure."

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

Approved by Jack Depperschmidt, DOE-ID NEPA Compliance Officer on: 8/29/2013