



# U.S. Department of Energy Office of Legacy Management Categorical Exclusion Determination Form



**Program or Field Office:** Office of Legacy Management

**Project Title and I.D. No.:** Installation and redevelopment of groundwater monitoring wells at the Salmon, Mississippi, Site. LM # 14-14

**Location:** Salmon, Mississippi, Site

**Proposed Action or Project Description:**

DOE proposes to install four new groundwater monitoring wells (SA1-12-L, SA2-6-H, SA2-6-L, and SA3-4-L) and redevelop 25 existing groundwater monitoring wells on the Salmon site. The site is located in Lamar County, Mississippi, approximately 10 miles west of Purvis, Mississippi, and about 21 miles southwest of Hattiesburg, Mississippi. The Salmon site was the location of two underground nuclear tests and two gas explosive tests conducted between 1964 and 1970. Existing site roads would be used to access the well locations.

The drilling subcontractor would use methods appropriate for the geologic formations to be drilled (e.g., rotary, sonic). One alluvial well (SA2-6-H) would be installed to an approximate depth of 30-40 feet (ft) below ground surface and the other three local aquifer wells would be installed to a depth of approximately 200 ft below ground surface. Two of the proposed wells (SA3-4-L and SA1-12-L) would be located near existing wells where the ground surface was previously cleared and graded for drilling. The other two proposed wells (SA2-6-L and SA2-6-H) would be located in an area that was previously cleared for logging by the Mississippi Forestry Commission (i.e., the entity that owns the surface rights). Drilling fluids (if applicable) would be discharged to a portable tank. A concrete pad, a locking protective cover, and bollards would be installed at each new well location, as appropriate. Once completed, the wells would be cleaned and developed to remove all drilling fluids and materials that may have been introduced as a result of the well-construction process. Development of new wells and redevelopment of existing wells would generate approximately 30,000 gallons of purged wastewater. Analytical data from existing wells indicate that arsenic, barium, chromium, and trichloroethene have been detected at concentrations that exceed the Safe Drinking Water Act maximum contaminant levels (MCLs). Water purged from all wells, including purge water with contaminants above MCLs, would be discharged to a frac tank. The wastewater would be transported to an approved non-hazardous waste facility for final disposition. All investigation-derived waste (IDW) would be managed and disposed in accordance with local, state, and federal regulations. The project field instructions will address the management of IDW.

**Categorical Exclusion(s) Applied:**

B3.1 (c): Categorical exclusions applicable to site characterization, monitoring, and general research: drilling of wells for sampling or monitoring of groundwater.

For the complete DOE National Environmental Policy Act regulations regarding categorical exclusions, including the full text of each categorical exclusion, see Subpart D of 10 CFR Part 1021.

Regulatory Requirements in 10 CFR 1021.410(b): (See full text in regulation)

The proposal fits within a class of actions that is listed in Appendix A or B to 10 CFR Part 1021, Subpart D

To fit within the classes of actions listed in 10 CFR Part 1021, Subpart D, Appendix B, a proposal must be one that would not: (1) threaten a violation of applicable statutory, regulatory, or permit requirements for environment, 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 facilities (including incinerators), but the proposal may include categorically excluded waste storage, disposal, recovery, or treatment actions or facilities; (3) disturb hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products that preexist in the environment such that there would be uncontrolled or unpermitted releases; (4) have the potential to cause significant impacts on environmentally sensitive resources, including, but not limited to, those listed in paragraph B(4) of 10 CFR Part 1021, Subpart D, Appendix B; (5) involve genetically engineered organisms, synthetic biology, governmentally designated noxious weeds, or invasive species, unless the proposed activity would be contained or confined in a manner designed and operated to prevent unauthorized release into the environment and conducted in accordance with applicable requirements, such as those listed in paragraph B(5) of 10 CFR Part 1021, Subpart D, Appendix B.

There are no extraordinary circumstances related to the proposal that may affect the significance of the environmental effects of the proposal.

The proposal has not been segmented to meet the definition of a categorical exclusion. This proposal is not connected to other actions with potentially significant impacts (40 CFR 1508.25(a)(1)), is not related to other actions with individually insignificant but cumulatively significant impacts (40 CFR 1508.27(b)(7)), and is not precluded by 40 CFR 1506.1 or 10 CFR 1021.211 concerning limitations on actions during preparation of an environmental impact statement.

Based on my review of the proposed action, as NEPA Compliance Officer (as authorized under DOE Order 451.1B), I have determined that the proposed action fits within the specified class(es) of action, the other regulatory requirements set forth above are met, and the proposed action is hereby categorically excluded from further NEPA review.

**NEPA Compliance Officer:**

**Date Determined:**