

U.S. Department of Energy  
Office of Legacy Management



LM 12-19



## NEPA Categorical Exclusion Determination Form

**Program or Field Office:** U.S. Department of Energy (DOE) Office of Legacy Management (LM)

**Project Title:** Pilot Test for Biological Treatment of Contaminated Groundwater at the Tuba City, Arizona, Disposal Site (UMTRCA Title I)

**Location:** Tuba City, Arizona, Disposal Site

### Proposed Action or Project Description:

DOE LM is proposing to conduct a pilot test to assess the viability of biological treatment of contaminated groundwater to demonstrate a feasible method for enhancing the treatment of contaminated groundwater at the Tuba City site (see attached figure).

Proposed activities would include pumping contaminated groundwater from an existing onsite extraction well into a small pilot test biological treatment system. The biological treatment system would include treatment media consisting of certain natural organic and inorganic materials and bacteria to promote biological processes. Biological processes are expected to remove uranium, molybdenum, selenium, sulfate, and nitrate contaminants from groundwater by converting those constituents to less or insoluble forms. Those less or insoluble forms of the groundwater contaminants would be captured by the treatment media. Samples of treated groundwater would be analyzed to determine the effectiveness of the biological treatment. Treated groundwater and the resulting contaminated treatment media would be disposed in the onsite evaporation pond for subsequent evaporation or eventual disposal at the Grand Junction, Colorado, Disposal Site.

Construction of the pilot test biological treatment system is planned to begin in June 2019. The treatment system is expected to operate July – August 2019, and possibly longer. A student intern from the University of Arizona would construct and operate the treatment system, with oversight and assistance provided by the LM support (LMS) contractor.

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### Categorical Exclusion(s) Applied:

- B1.26 Small water treatment facilities
- B3.1 Site characterization and environmental monitoring

For the complete DOE National Environmental Policy Act (NEPA) regulations regarding categorical exclusions, including the full text of each categorical exclusion, see Subpart D of Title 10 *Code of Federal Regulations* Section 1021 (10 CFR 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 by the LM Director per DOE Policy 451.1), I have determined that the proposed action fits within the specified classes of action, the other regulatory requirements set forth above are met, and the proposed action is hereby categorically excluded from further NEPA review.

*Tracy A. Ribeiro*

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NEPA Compliance Officer

Date Determined