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U.S. Department of Energy
Categorical Exclusion Determination Form

Project Title: Southern Sector Humate Injection Pilot Test

Program or Field Office: Savannah River Site

Location(s) (City/County/State): Aiken/Aiken/South Carolina

Proposed Action or Project Description:
Pursuant to encouraging results from the 2013/2015 Aerobic Bio-stimulation bench scale study using humate to treat Southern Sector groundwater contaminated with the solvents trichloroethylene (TCE) and tetrachloroethylene (PCE), Environmental Compliance & Area Completion Project (EC&ACP) and Savannah River National Laboratory (SRNL) initially obtained a Temporary Authorization (TA) from the South Carolina Department of Health and Environmental Control (SCDHEC) to pursue a field pilot at the M-Area Southern Sector recovery well SSR001 area. However, the injection capacity of the upper screen of SSR001 diminished over time. Savannah River Site (SRS) ceased the injection activities and with SCDHEC approval, removed the bulk of the humate solution from the tanks. To determine if the humate amendment might be a viable option as a recommended corrective action, SRS proposed and SCDHEC approved a revised strategy of extracting groundwater from the lower portion of the Lost Lake Aquifer Zone (LLAZ) using screen zone SSR001B of recirculation well SSR001. At the surface, the groundwater will be amended with dissolved humate, a macronutrient fertilizer, and an anti-foam agent, and injected into upgradient wells SSM001B, SSM037B, and SSM040CC to distribute these amendments in the LLAZ. SCDHEC has approved this revised strategy. The goal is to establish an enhanced attenuation zone with humate concentration in the aquifer at a level of 100 mg/L (500 mg/kg sorbed in the soil). This will be followed by monitoring and periodic reporting, culminating with a final performance effectiveness status report in 2022.

Categorical Exclusion(s) Applied:

B3.1 - Site characterization and environmental monitoring

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.

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

☒ This 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 § 1021.211 concerning limitations on actions during preparation of an environmental impact statement.

☒ All of the conditions that are integral elements of the classes of actions in Appendix B to Subpart D of 10 CFR Part 1021 would be met. This proposal would not threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, or similar requirements of DOE or Executive Orders; 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; 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; have the potential to cause significant impacts on environmentally sensitive resources, including, but not limited to, those listed in paragraph B(4) of Appendix B to Subpart D of 10 CFR Part 1021; 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.

Based on my review of information conveyed to me and in my possession (or attached) concerning 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: Tracy L. Williams Digitally signed by Tracy L. Williams Date: 2019.06.25 07:49:42 -04'00' Date Determined: 06/19/2019

Comments: CBU-M-2016-0026, Rev. 5