



National Environmental Policy Act (NEPA) Determination Categorical Exclusion (CX)

Recipient: Battelle Memorial Institute

State: Louisiana

Project Title: Project Cypress Direct Air Capture - Budget Period 1

Funding Opportunity Announcement Number: DE-FOA-0002735

Award Number: DE-CD0000020

OCED NEPA Control Number: OCED-0000020-001-CX

Based on my review of the information concerning the proposed action, as NEPA Compliance Officer (authorized under DOE Policy 451.1), I have made the following determination:

CATEGORICAL EXCLUSION APPENDIX, NUMBER, AND DESCRIPTION:

A9 Information gathering, analysis, and dissemination: Information gathering (including, but not limited to, literature surveys, inventories, site visits, and audits), data analysis (including, but not limited to, computer modeling), document preparation (including, but not limited to, conceptual design, feasibility studies, and analytical energy supply and demand studies), and information dissemination (including, but not limited to, document publication and distribution, and classroom training and informational programs), but not including site characterization or environmental monitoring. (See also B3.1 of appendix B to this subpart.)

B3.1 Site characterization and environmental monitoring: Site characterization and environmental monitoring (including, but not limited to, siting, construction, modification, operation, and dismantlement and removal or otherwise proper closure (such as of a well) of characterization and monitoring devices, and siting, construction, and associated operation of a small-scale laboratory building or renovation of a room in an existing building for sample analysis). Such activities would be designed in conformance with applicable requirements and use best management practices to limit the potential effects of any resultant ground disturbance. Covered activities include, but are not limited to, site characterization and environmental monitoring under CERCLA and RCRA. (This class of actions excludes activities in aquatic environments. See B3.16 of this appendix for such activities.) Specific activities include but are not limited to: (a) Geological, geophysical (such as gravity, magnetic, electrical, seismic, radar, and temperature gradient), geochemical, and engineering surveys and mapping, and the establishment of survey marks. Seismic techniques would not include large-scale reflection or refraction testing; (b) Installation and operation of field instruments (such as stream-gauging stations or flow-measuring devices, telemetry systems, geochemical monitoring tools, and geophysical exploration

tools); (c) Drilling of wells for sampling or monitoring of groundwater or the vadose (unsaturated) zone, well logging, and installation of water-level recording devices in wells; (d) Aquifer and underground reservoir response testing; (e) Installation and operation of ambient air monitoring equipment; (f) Sampling and characterization of water, soil, rock, or contaminants (such as drilling using truck-or mobile-scale equipment, and modification, use, and plugging of boreholes); (g) Sampling and characterization of water effluents, air emissions, or solid waste streams; (h) Installation and operation of meteorological towers and associated activities (such as assessment of potential wind energy resources); (i) Sampling of flora or fauna; and (j) Archeological, historic, and cultural resource identification in compliance with 36 CFR part 800 and 43 CFR part 7.

Rationale for Determination: DOE's Office of Clean Energy Demonstrations (OCED) is proposing to provide funding to Battelle Memorial Institute in support of the Project Cypress Direct Air Capture (DAC) project (Project Cypress). Project Cypress would include the engineering and design of a DAC hub in Calcasieu Parish (Ward 7), located in southwest Louisiana. At full build out, the proposed DAC Hub would contain the necessary infrastructure for direct carbon dioxide (CO₂) capture and transport through multiple, contrasting DAC technologies.

At this time, DOE is proposing to provide funding in support of Project Cypress planning and design activities only; those activities are described below. The planning and design activities completed in this budget period (BP) would inform additional DOE NEPA review and a go/no-go decision prior to authorizing federal funding in support of subsequent project phases.

In this BP, Battelle would:

1. Prepare pre-front end engineering and design (FEED) and FEED studies to develop the detailed design
2. Perform project management, planning, contracting, and administrative duties
3. Prepare purchase orders for long-lead equipment
4. Perform the following investigations and site surveys for the approximately 150-acre field study area:
 - Desktop review of existing geological, geophysical, topography, and geo-chemical data
 - Desktop review of existing data on groundwater/aquifer capacity
 - Desktop review of threatened and endangered species
 - Preliminary calculations of potential effluent, solid waste and air emissions (using publicly available data)
 - Preliminary calculations to determine noise impacts (using publicly available data)
 - Pedestrian survey of flora or fauna
 - Wetlands surveys and mapping under the Clean Water Act Section 404 permitting process
 - Archeological, historic, and cultural resource survey within the field study area and the vicinity. Surveys could include shovel testing and/or ground penetrating radar; no drilling or excavation would occur. These activities must be completed in accordance with applicable guidelines and standards provided by the Louisiana State Historic Preservation Office (SHPO) and coordination with the SHPO and communication with DOE about field strategies and methods is required prior to initiating the fieldwork (as noted below).

DOE does not anticipate adverse impacts to sensitive resources as a result of the proposed activities.

Consultations (Section 106 NHPA, Section 7 ESA, etc.): None required for the activities included in this CX Determination.

The proposed action (or the part of the proposal defined in the Rationale above) 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 proposed action that may affect the significance of the environmental effects of the proposal. The proposed action 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 1501.9(e)(1)), is not related to other actions with individually insignificant but cumulatively significant impacts (40 CFR 1508.1(g)(3)) 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.

DOE has determined that work to be carried out outside of the United States, its territories and possessions is exempt from further review pursuant to Section 5.1.1 of the DOE Final Guidelines for Implementation of Executive Order 12114; "Environmental Effects Abroad of Major Federal Actions."

The proposed action is categorically excluded from further NEPA review.

A portion of the proposed action is categorically excluded from further NEPA review.

Notes: This categorical exclusion applies to those activities listed above for information gathering, analysis and dissemination; as well as the specifically described site characterization and environmental monitoring activities. Any changes to the project activities or location are subject to additional NEPA

review by DOE and are not authorized for federal funding unless and until the Contracting Officer provides written authorization on those additions or modifications.

All archeological, historic, and cultural resource identification activities must be completed in accordance with applicable guidelines and standards provided by the Louisiana State Historic Preservation Office (SHPO). Coordination with the SHPO and communication with DOE about field strategies and methods is required prior to initiating the fieldwork.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

OCED NEPA Compliance Officer Signature:

Date: 12/22/2023