

U.S. DEPARTMENT OF ENERGY - NETL

CATEGORICAL EXCLUSION (CX) DESIGNATION FORM

Project No.: DE-FE0032112 Recipient Name: West Virginia Univ. Project Location: Morgantown, WV

Sub-recipient(s) and Locations:

None

NETL Sponsoring Org.: FE/TDC/ACCM/IES Team NETL Contact: Debalina Dasgupta

Brief Title of Proposed Action: Designing Internal Surfaces of Porous Electrodes in Solid Oxide Electrolysis..

Brief Description of Activities:

ALD processing of samples, cells, nanostructure and chemistry characterization using SEM and TEM, cell performance testing.

THE PROPOSED ACTION FALLS WITHIN THE FOLLOWING CATEGORICAL EXCLUSION(S) FROM APPENDICES A AND B TO SUBPART D OF DOE NEPA IMPLEMENTING PROCEDURES (10 CFR 1021):

General Administration/Management

- ☐ A1 – Routine business actions
☒ A9 – Info gathering, analysis, documentation, dissemination, and training
☐ A11 – Technical advice and planning assistance

Facility Operations

- ☐ B1.3 – Routine maintenance and custodial services
☐ B1.7 – Communication system and data processing equipment acquisition, installation, operation, removal
☐ B1.15 – Support building or structure, non-waste storage, construction/operation

Safety and Health

- ☐ B2.1 – Modifications to enhance workplace habitability
☐ B2.2 – Installation/improvement of building/equipment instrumentation
☐ B2.3 – Installation of equipment for personnel safety and health

General Research

- ☐ B3.1 – Site characterization/environmental monitoring
☒ B3.6 – R&D or pilot facility construction/operation/decommissioning
☐ B3.7 – New infill exploratory, experimental oil/gas/geothermal well construction and/or operation
☐ B3.9 – Certain CCT demonstration activities, emissions unchanged
☐ B3.11 – Outdoor tests, experiments on materials and equipment components

Electrical Power and Transmission

- ☐ B4.4 – Power management activities (storage, load shaping, and balancing)
☐ B4.6 – Transmission support addition/modifications at developed facility site
☐ B4.11 – Construction of power substations and interconnection facilities
☐ B4.13 – Upgrading and rebuilding existing power lines (< 20 miles)

Conservation, Fossil, and Renewable Energy Activities

- ☐ B5.1 – Actions to conserve energy, no indoor air quality degradation
☐ B5.3 – Modification/abandonment of wells
☐ B5.5 – Short crude oil/gas/steam/geothermal/carbon dioxide pipeline const/oper within an existing right-of-way (< 20 miles) between existing facilities
☐ B5.13 – Experimental wells for injection of small quantities of carbon dioxide (< 500,000 tons)
☐ B5.15 – Small scale renewable energy research/development/pilot projects
☐ B5.22 – Alternative fuel vehicle fueling stations
☐ B5.23 – Electric vehicle charging stations

Other

☐ Specify category:

☐ Specify category:

☐ Specify category:

This action (1) would not present any extraordinary circumstances such that the action might have a significant impact upon the human environment; (2) is not connected to other actions with potentially significant impacts; (3) is not related to other actions with cumulatively significant impacts; and (4) is not inconsistent with 10 CFR 1021.211 - Interim Actions or 40 CFR 1506.1 - Limitations during the NEPA process.

SELECT ONE OF THE FOLLOWING:

- ☒ This Categorical Exclusion includes all tasks and phases in the Statement of Work or Statement of Project Objectives for this project.
☐ This Categorical Exclusion is only valid for the following tasks/phases . The DOE initiator acknowledges the responsibility to obtain a NEPA determination prior to initiating any activities outside the scope of this Categorical Exclusion.

SELECT ONE OF THE FOLLOWING:

- ☒ This Categorical Exclusion includes all locations and activities for this project.
☐ Additional sites, sub-recipients, or activities cannot be identified at this time. The DOE initiator acknowledges the responsibility to obtain a NEPA determination prior to initiating any activities outside the scope of this Categorical Exclusion.

NOTE: ANY CHANGE(S) TO THE PROJECT SCOPE OR LOCATIONS MAY REQUIRE A NEW NEPA DETERMINATION.

DOE Initiator Signature: DEBALINA DASGUPTA

Digitally signed by DEBALINA DASGUPTA
Date: 2021.08.03 18:28:31 -0400

Date: 08 / 03 / 2021

month day year

NEPA Compliance Officer: Mark Lusk

Digitally signed by Mark Lusk
Date: 2021.08.12 13:59:38 -0400

Date: 08 / 12 / 2021

month day year

The following special condition is provided for the consideration of the Contracting Officer: