

**U.S. DEPARTMENT OF ENERGY  
OFFICE OF ENERGY EFFICIENCY AND RENEWABLE ENERGY  
NEPA DETERMINATION**



**RECIPIENT:** Pajarito Powder

**STATE:** NM

**PROJECT TITLE:** High Volume Production and Validation of Advanced Pt and Pt Alloy Catalysts on Engineered Carbon Supports

<b>Funding Opportunity Announcement Number</b> FOA-0002922	<b>Procurement Instrument Number</b> DE-EE0011349	<b>NEPA Control Number</b> GFO-0011349-001	<b>CID Number</b> G011349
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**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:**

**CX, EA, EIS APPENDIX AND NUMBER:**

Description:

<b>A9 Information gathering, analysis, and dissemination</b>	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.)
<b>B3.15 Small-scale indoor research and development projects using nanoscale materials</b>	Siting, construction, modification, operation, and decommissioning of facilities for indoor small-scale research and development projects and small-scale pilot projects using nanoscale materials in accordance with applicable requirements (such as engineering, worker safety, procedural, and administrative regulations) necessary to ensure the containment of any hazardous materials. Construction and modification activities would be within or contiguous to a previously disturbed or developed area (where active utilities and currently used roads are readily accessible).
<b>B3.6 Small-scale research and development, laboratory operations, and pilot projects</b>	Siting, construction, modification, operation, and decommissioning of facilities for smallscale research and development projects; conventional laboratory operations (such as preparation of chemical standards and sample analysis); and small-scale pilot projects (generally less than 2 years) frequently conducted to verify a concept before demonstration actions, provided that construction or modification would be within or contiguous to a previously disturbed or developed area (where active utilities and currently used roads are readily accessible). Not included in this category are demonstration actions, meaning actions that are undertaken at a scale to show whether a technology would be viable on a larger scale and suitable for commercial deployment.

Rationale for determination:

The U.S. Department of Energy (DOE) is proposing to provide federal funding to Pajarito Powder LLC (Pajarito) to develop, test, and manufacture carbon-based engineered catalyst supports (ECS) and supported platinum (Pt) alloy-based catalysts, scaling up production with needed durability, quality, and reliability for the fuel cell industry.

Award activities would be conducted at Pajarito in Albuquerque, NM; Oak Ridge National Laboratory (ORNL) in Knoxville, TN; Strategic Analysis Inc. in Arlington, VA; GM Global Propulsion Systems, Fuel Cell Lab GM Propulsion Systems in Pontiac, MI; and Brookhaven National Laboratory in Upton, NY.

Award activities would occur entirely within existing research and development facilities that are purpose-built for the type and scale of activities being proposed. Internal facility modifications would occur at Pajarito to accommodate equipment changes. Pajarito would install a large-scale nitrogen gas generator on the exterior of the building, without the need for any new ground disturbance. No change in the use, mission, or operation of existing facilities would arise out of this effort.

Award activities would involve handling and use of various hazardous materials including corrosives, oxidizers, toxic chemicals, and nanoscale particles. Project activities involving hazardous materials pose no risk to the public. Hazardous materials and nanoscale particles would be utilized, managed, stored, and disposed of in accordance with applicable federal, state, and local environmental regulations. Existing laboratory and governmental health and safety policies and procedures would be followed, including employee training, proper protective equipment, engineering controls, monitoring, and internal assessments.

Pajarito would be required to register as a large quantity waste generator with the New Mexico Environmental Department. Air emission abatement permitting would be completed through the City of Albuquerque and Environmental Protection Agency. Pajarito has contracted an environmental firm to assist in obtaining all necessary

permits. There is an acid spill catchment system in place at Pajarito that contains and neutralizes acids prior to discharge to the existing sewer system.

DOE has considered the scale, duration, and nature of the proposed activities to determine potential impacts on sensitive resources, including those of an ecological, historical, cultural, and socioeconomic nature, and found no effects that would be expected to result from the proposed project activities.

Any work proposed to be conducted at a federal facility may be subject to additional NEPA review by the cognizant federal official and must meet the applicable health and safety requirements of the facility.

## NEPA PROVISION

DOE has made a final NEPA determination.

Notes:

Hydrogen and Fuel Cell Technologies Office (HFTO)  
NEPA review completed by Dustin Hill, 5/30/2024

## FOR CATEGORICAL EXCLUSION DETERMINATIONS

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 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.

The proposed action is categorically excluded from further NEPA review.

## SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: \_\_\_\_\_

 Electronically  
Signed By: **Melissa Parker**

NEPA Compliance Officer

Date: 6/3/2024

## FIELD OFFICE MANAGER DETERMINATION

- Field Office Manager review not required  
 Field Office Manager review required

## BASED ON MY REVIEW I CONCUR WITH THE DETERMINATION OF THE NCO :

Field Office Manager's Signature: \_\_\_\_\_

Field Office Manager

Date: \_\_\_\_\_