

PMC-ND

(1.08.09.13)

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

**RECIPIENT:** Nel Hydrogen Inc**STATE:** CA

**PROJECT TITLE:** High-Speed and Dynamic Diaphragm Compressor for High-Capacity Fueling

<b>Funding Opportunity Announcement Number</b>	<b>Procurement Instrument Number</b>	<b>NEPA Control Number</b>	<b>CID Number</b>
DE-FOA-0002044	DE-EE0008818	GFO-0008818-001	GO8818

**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:

**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.)

**B3.6 Small-scale research and development, laboratory operations, and pilot projects** 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.

**B5.22 Alternative fuel vehicle fueling stations** The installation, modification, operation, and removal of alternative fuel vehicle fueling stations (such as for compressed natural gas, hydrogen, ethanol and other commercially available biofuels) on the site of a current or former fueling station, or within a previously disturbed or developed area within the boundaries of a facility managed by the owners of a vehicle fleet. Covered actions would be in accordance with applicable requirements (such as local land use and zoning requirements) in the proposed project area and would incorporate appropriate control technologies and best management practices.

Rationale for determination:

The U.S. Department of Energy (DOE) is proposing to provide federal funding to Nel Hydrogen Inc. (Nel) for the design, development, fabrication, and field testing of a compressor prototype for high-capacity hydrogen fueling of Heavy Duty Vehicles (HDV). Design, fabrication, and testing activities would occur at Nel's facility in California and Nikola Motor Company's laboratory test facilities in Arizona. For testing, Nikola's existing facility would be upgraded with the hydrogen compressor prototype. The project would be completed over three Budget Periods (BPs), with a Go/No-Go Decision Point in between the BPs.

Design and fabrication activities would occur within existing facilities designed for this type of work that would utilize standard laboratory equipment; therefore no modifications, changes in the operation of existing facilities, new permits, additional licenses and/or authorizations would be necessary. The project would involve the use and handling of flammable and explosive hydrogen gas. All such handling would occur in a controlled laboratory and test facility environment using appropriate equipment where there are dedicated proper health, safety and environmental practices to ensure project activities that involve hydrogen gas would pose no risk to the public. All hazardous materials and overall safety would be managed in accordance with Federal, state, and local environmental regulations. Existing health and safety policies and procedures at NEL and Nikola would be followed, including employee training, proper protective equipment, engineering controls, monitoring, and internal assessments. Additional policies and procedures would be implemented as necessary as new health and safety risks are identified to help ensure compliance with applicable health and safety regulations, and minimize health and safety risks to

employees and the public.

Upgrading Nikola's facility would require ground disturbing activities for the hydrogen compressor prototype similar to what is needed for conventional fueling stations. A foundation for the fueling equipment would be required to ensure sufficient stability of the system during operation. Trenches would be required to run utilities to the fueling equipment and to connect the compressor with the dispenser. Paving is also expected to ensure access for vehicles to the dispenser. Any permits needed for installation of the hydrogen compressor prototype would be applied for and approved by the local authorities having jurisdiction in Arizona prior to installation. These activities would be conducted adjacent to the existing laboratory facilities located on private industrial property. The equipment is expected to require no more than 4,000 square feet with a maximum height of equipment being up to 13ft. The Nikola laboratory facilities are designed for testing of hydrogen and fuel cell technology for trucking and other vehicles so the addition of the hydrogen compressor prototype would not expand the scope of ongoing activities at the site and would not require additional permits for operation. The compressor prototype testing is not expected to generate any waste or pollutants to the surrounding environment as these activities would only involve continuous compression of hydrogen gas that is recycled in the process. The majority of materials for the compressor would be steel that could be easily dismantled after use and scrapped for recycling at the end of the project. Foundations and utilities could be removed if necessary or reused for other test purposes.

DOE does not anticipate any impacts to resources of concern due to the proposed activities of the project.

## NEPA PROVISION

DOE has made a final NEPA determination.

Notes:

Fuel Cell Technologies Office

This NEPA determination does not require a tailored NEPA provision.

## 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:



Casey Strickland

NEPA Compliance Officer

Date: 3/3/2020

**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: \_\_\_\_\_