PMC-EF2a

(20602)

U.S. DEPARTMENT OF ENERGY
EERE PROJECT MANAGEMENT CENTER
NEPA DETERMINATION

RECIPIENT: State of Hawaii **STATE:** HI

PROJECT TITLE: Hawaii Hydrogen Power Park - Technology Validation of a Hydrogen Fueling System

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
n/a	DE-FC51-02R021399	GFO-10-324	0

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

CX, EA, EIS APPENDIX AND NUMBER:

Description:

B5.1 Actions to conserve energy, demonstrate potential energy conservation, and promote energy-efficiency that do not increase the indoor concentrations of potentially harmful substances. These actions may involve financial and technical assistance to individuals (such as builders, owners, consultants, designers), organizations (such as utilities), and state and local governments. Covered actions include, but are not limited to: programmed lowering of thermostat settings, placement of timers on hot water heaters, installation of solar hot water systems, installation of efficient lighting, improvements in generator efficiency and appliance efficiency ratings, development of energy-efficient manufacturing or industrial practices, and small-scale conservation and renewable energy research and development and pilot projects. The actions could involve building renovations or new structures in commercial, residential, agricultural, or industrial sectors. These actions do not include rulemakings, standard-settings, or proposed DOE legislation.

Rational for determination:

The State of Hawaii is proposing to use DOE and cost share funding to implement an experimental hydrogen-powered bus shuttle system and filling station for use in the Hawaii Volcano National Park system (HAVO) on the Big Island of Hawaii. The proposed Power Park Phase 2 (Project) would expand the capabilities of the existing hydrogen Power Park (the site) through the testing and validation of hydrogen fueling system technologies. The Project would include the design of the hydrogen site, identification and obtaining all necessary permits, installation of turn-key hydrogen production, and creation of a hydrogen storage and dispensing system.

Location and Traffic:

The existing site currently consists of unpaved native grasses with the exception of a small concrete driveway, and also contains a small enclosed group of diesel fuel tanks. The diesel tanks are not to be utilized as part of the Project. The existing paved driveway would be utilized for vehicle access to the dispensaries. The National Park Service (NPS) prepared an Environmental Screening Form (ESF) for the Project, dated July 22, 2008. The ESF concluded the Project would not substantially increase traffic congestion, traffic volume, or adversely affect traffic safety for buses, pedestrians, and bicyclists. The ESF also lists a categorical exclusion, including that the dimensions of the vehicles utilized not exceed 8' wide to maintain safe operation on the existing roadways.

Noise:

The ESF provided by the NPS lists a categorical exclusion with a stipulation including the chiller noise must not exceed 35dBa at 75 meters. The 35 dBa standard would be protective for any sensitive receptors in dorms or housing at KMC, due to the closest housing is present approximately 75 meters away from the proposed fueling station. In order to reduce the chiller noise level (approximately 4dBa at 75 meters) to assure it remains at levels <35dBa, a four-wall enclosure with an open top would be built around the chiller. The walls would be constructed utilizing noise absorptive materials.

Operational and System Safety:

At this time there are no safety features in place due to the fact the site is currently utilized solely for diesel fuel storage. Required safety features to be installed by the awarded contractor would include sensors (including ultraviolet and infrared hydrogen fire detection sensors), alarms, emergency shutdowns, and on-site and remote monitoring systems. Currently, representatives from the University of Hawaii's Environmental Health and Safety Office (EHSO) conduct periodic safety inspections and audits at the site to assure regulatory compliance. Compliance with the Environmental Protection Agency (EPA), the Hawaii Department of Health, the Occupational Safety and Health

Administration (OSHA), the Hawaii Occupational Safety and Health Division is also addressed in these environmental and occupational safety compliance audits. The Project would demonstrate compliance to all applicable codes and standards pertinent to the Project.

A safety plan would be developed, and independently reviewed by a responsible third party as called for in the Statement of Work. All safety requirements specified in the Request for Proposal (RFP) will be complied with. All operators and maintenance personnel would be adequately trained in the safety, operation, maintenance, and dispensing procedures. The fueling system would be properly maintained in accordance with the Maintenance Management Information System.

Cultural Resources:

The ESF also includes a list of potential cultural resources impacted. The Project elements indicated as possessing a potential impact to cultural resources are:

- Intrusive activities which disturb the ground surface by digging, excavating, or moving rock;
- Introduction of non-historic elements (visible, audible, or atmospheric) into historic setting/environment; and
- Project location within a historic district, cultural landscape, or Traditional Cultural Property.

Intrusive activities would be necessary to build the 35' x 50' concrete pad in the KMC base yard to house the buses and install the fueling station components. The degree of disturbance and excavation involved in the pad construction would be very minimal, and involve excavation to a depth of only a few inches.

The Project would introduce non-historic elements to the site; however, due to its location outside the historic district and the size and nature of the proposed action, it is not anticipated the Project would present an adverse impact to a historic setting. The ESF further indicated that the Project would not "have significant impacts on such natural resources and unique geographic characteristics as historic or cultural resources." The ESF concluded that an archeological survey and ethnographic consultation were not required, after the NPS consulted with the State Historic Preservation Office (SHPO). As indicated in the Categorical Exclusion issued by the NPS on September 21, 2009, a stipulation states an: "Archeological monitor to be present during all ground-alternating activities."

The Project would pose no impact on water quality, with only minimal increases in noise levels. Noise absorptive barriers would be constructed in order to decrease any noise generated. The design of the Project safety components would be assured to comply with all applicable current codes and standards. A safety plan would be developed, and independently reviewed by a responsible third party as called for in the Statement of Work. Multiple safety measures would be in place to ensure that any potential risks in the operation of the generation and fueling facility would be mitigated. Required safety features to be installed by the awarded contractor would include sensors (including ultraviolet and infrared hydrogen fire detection sensors), alarms, emergency shutdowns, a surveillance camera, and on-site and remote monitoring systems.

Based on the information above, the DOE deems this Project does not pose a significant impact to the human or natural environment; therefore this Project is hereby Categorically Excluded from further NEPA review under B5.1 "Actions to conserve energy, demonstrate potential energy conservation, and promote energy-efficiency".

NEPA PROVISION

Note to Specialist :

None Given.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____ Date: 7/12/10

NEPA Compliance Officer

FIELD OFFICE MANAGER DETERMINATION

☐ Field Office Manager review required

NCO REQUESTS THE FIELD OFFICE MANAGER REVIEW FOR THE FOLLOWING REASON:

☐ Proposed action fits within a categorical exclusion but involves a high profile or controversial issue that warrants Field Office Manager's attention.