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(1.08.09.13)

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

RECIPIENT: NREL **STATE:** CO

PROJECT TITLE: STM S&TF Structural Modifications, NREL Tracking No. 16-004

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
	DE-AC36-08GO28308	NREL-16-004	GO28308

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:

B2.5 Facility safety and environmental improvements	Safety and environmental improvements of a facility (including, but not limited to, replacement and upgrade of facility components) that do not result in a significant change in the expected useful life, design capacity, or function of the facility and during which operations may be suspended and then resumed. Improvements include, but are not limited to, replacement/upgrade of control valves, in-core monitoring devices, facility air filtration systems, or substation transformers or capacitors; addition of structural bracing to meet earthquake standards and/or sustain high wind loading; and replacement of aboveground or belowground tanks and related piping, provided that there is no evidence of leakage, based on testing in accordance with applicable requirements (such as 40 CFR part 265, "Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities" and 40 CFR part 280, "Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks"). These actions do not include rebuilding or modifying substantial portions of a facility (such as replacing a reactor vessel).
DOE/EA-1968 (NREL STM)	SITEWIDE ENVIRONMENTAL ASSESSMENT, U.S. DOE NATIONAL RENEWABLE ENERGY LABORATORY, SOUTH TABLE MOUNTAIN CAMPUS, GOLDEN, COLORADO

Rationale for determination:

The U.S. Department of Energy (DOE) proposes to perform structural modifications at the Science & Technology Facility (S&TF) at the National Renewable Energy Laboratory (NREL) South Table Mountain (STM) campus located in Golden, Colorado.

The proposed project activities include the design and installation of needed structural modifications in order to bring the 2006 constructed S&TF into compliance with current building codes for structural integrity. The entire project would take 8 to 9 months and is proposed to begin in mid-February, 2016.

During the design phase of a recent cleanroom project (NREL-15-006), the project team discovered that portions of the S&TF had not been constructed in accordance with the building code. A structural engineering firm review of the S&TF structure identified two structural deficiencies including: 1) the structural stability of the metal roof joists, and 2) the load bearing ability of the foundation footers beneath the proposed cleanroom.

Two and one half inch angle iron would be delivered on-site and cut to the required size. These pieces would be welded to existing steel roof structure at the identified interior locations to increase the stability and bring the building up to current building codes. The roof access points would be located in stairwells, office areas, and laboratory areas as needed. At the silane bunker area, external access is needed to reach the building structural components that require modification.

Below the proposed cleanroom the buildings concrete footers would be accessed, a portion of the footers removed, and then reconstructed in place using reinforced concrete. This work would bring the structural integrity of the footers in line with the new loads required for the cleanroom equipment. After structural modifications are made, drywall and exterior surfaces would be replaced, patched and painted.

No ground disturbance would be occur for this project. The laydown area would be located on existing concrete or asphalt. Delivery trucks would access the north service road behind the S&TF to deliver supplies such as drywall,

steel, and concrete. All hazardous materials would be properly stored inside the building. These include primer, paint and welding materials. Given the age of the building, no asbestos was used in the building's construction.

Hazardous materials will be secured as repair work progresses in each area to ensure repair activities do not initiate or contribute to a hazardous materials release or event. All applicable SOPs, policies and NREL Lab Level Procedures would be followed. Some lab work will be postponed. Staff office areas may be temporarily relocated depending on the extent and duration of activities in their immediate work areas. Certain laboratories within the S&TF would be closed or research postponed as needed.

Potential emissions include greenhouse gases, particulate matter, and airborne pollutants. Sources of emissions would include mobile sources such as delivery trucks, forklifts, and generators. These sources of emission would be short-term and negligible. Welders would also be a source of emission of metal-oxide gases. Proper ventilation would be used to remove emissions from indoor work area and welder's breathing space.

The operation and maintenance of facilities, building systems, and infrastructure are analyzed in the December 2014 NREL STM Site-Wide Environmental Assessment (DOE/EA-1968). The proposed project and associated impacts are described in Sections 3.2.1 (Research Activities, Laboratory Activities, and Site Operations Enhancements Enhanced Site Operations) and 3.2.2 (New Building Construction and Modifications of Existing Buildings) of the DOE/EA-1968. DOE/EA1968 and the associated Finding of No Significant Impact (FONSI), and are hereby incorporated by reference. DOE has determined that these activities are consistent with DOE CX B2.5 (Facility Safety and Environmental Improvements) and are bounded by the environmental impact analysis contained in DOE/EA-1968, and FONSI, and no further NEPA review is required.

NEPA PROVISION

DOE has made a final NEPA determination for this award

Insert the following language in the award:

If the Recipient intends to make changes to the scope or objective of this project, the Recipient is required to contact the Project Officer, identified in Block 15 of the Assistance Agreement before proceeding. The Recipient must receive notification of approval from the DOE Contracting Officer prior to commencing with work beyond that currently approved. If the Recipient moves forward with activities that are not authorized for Federal funding by the DOE Contracting Officer in advance of a final NEPA decision, the Recipient is doing so at risk of not receiving Federal funding and such costs may not be recognized as allowable cost share.

Note to Specialist :

Review completed by Chris Rowe, 1/22/2016.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: Electronically Signed By: Kristin Kerwin Date: 1/28/2016

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.

☐ Proposed action falls within an EA or EIS category and therefore requires Field Office Manager's review and determination.

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

Field Office Manager's Signature: _____ Date: _____

Field Office Manager