

PMC-ND

(1.08.09.13)

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



RECIPIENT: NREL

STATE: CO

PROJECT
TITLE :

South Table Mountain Campus Mass Communication System, NREL Tracking No. 14-019

| | | | |
|--|--------------------------------------|----------------------------|-------------------|
| Funding Opportunity Announcement Number | Procurement Instrument Number | NEPA Control Number | CID Number |
| | DE-AC36-08GO28308 | NREL-14-019 | 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).

Rationale for determination:

The U.S. Department of Energy (DOE) proposes the installation and operation of a new emergency mass communication system at the National Renewable Energy Laboratory (NREL) South Table Mountain (STM) campus located in Golden, Colorado.

PROPOSED ACTION

Currently, there is no outdoor notification and public address system at the NREL STM campus to notify personnel who are outside of buildings in the event of an emergency situation. To address this deficiency, the NREL Security and Emergency Preparedness Office is proposing the installation and operation of an emergency mass communication system in accordance with the U.S. Federal Emergency Management Agency (FEMA) CPG 1-17 Outdoor Warning Systems Guide, which is uploaded to the PMC database. The proposed emergency mass communication system would consist of a Long Range Audio Device (LRAD) 360X Two Emitter Mass Communication system mounted on a 50-foot pole. The pole-mounted LRAD unit would be erected in a grassy area to north of the NREL Café in the central part of STM campus. The manufacturer's specification sheet for the LRAD 360X and a map depicting the proposed location of the device have been uploaded to the PMC. The foundation for the proposed pole-mounted LRAD unit would consist of a concrete pier with a diameter of up to 2 feet and a depth of 4 feet. Power and communication lines would be buried in a 2-foot deep trench running from the pole to the telecommunications room in the Café. This trench would be between 90 to 150 feet depending upon the exact final location of the pole within the proposed project area.

The LRAD unit would be operated by the NREL Security and Emergency Preparedness Office and only be used to notify and provide direction to employees during emergency events, such as adverse weather, wildfires, hazardous materials releases, active shooter scenarios, intentional destructive acts, etc. These notifications would be only as necessary, would be short duration, and would likely only occur during normal campus working hours. The system would be equipped with volume control to adjust the audio output of the device.

IMPACTS OF PROPOSED ACTION

Stormwater quality or erosion impacts of the proposed action would be minimal. The proposed installation of the LRAD unit would disturb up to approximately 1,500 SQFT of land for foundation placement and utility line trenching. All land disturbance, BMP installation, and restoration would be conducted in accordance with NREL Lab Level Procedure 6-1.28 Stormwater Pollution Prevention for Construction Activities: South Table Mountain Site. There are no floodplains, wetlands, or Waters of the United States in the vicinity of the proposed project area.

The installation of the LRAD unit may require the utilization of mobile point emission sources, such as trucks, boom or

bucket lifts, cranes etc., but these emissions would be negligible given the size and duration of the installation activity. No air emissions would occur as a result of the operation of the proposed device.

Per the 2010-2011 site-wide wildlife survey, no threatened, endangered, or candidate wildlife species were observed at STM, nor was habitat for such species identified. Similarly, the vegetation survey during the same time period found no rare plants or habitat that may support federally protected plant species in the area proposed for this project. There is no known scientific literature documenting negative impacts on avian species by LRAD units. LRAD units are currently be utilized as active bird deterrents to minimize birds strikes at airports and wind energy installations across the country. NREL EHS would monitor any unforeseen wildlife impacts caused by the LRAD operation in accordance with existing policies, plans, and procedures.

Archeological and cultural resources on STM site were assessed in DOE/EA-1440 and its two subsequent Supplemental Environmental Assessments (DOE/EA-1440-S-I and DOE/EA-1440-S-II), including Section 106 consultations with the Colorado State Historic Preservation Officer. The proposed location of the LRAD unit was previously disturbed during the construction of RSF-II and the NREL Café and there are no known cultural resources in the vicinity of the proposed project location. The proposed pole-mounted LRAD unit would not be within the viewshed of the outdoor amphitheater, the ammunition igloo, or other contributing resources of the Camp George West Historic District. No indirect impacts to these resources are anticipated by this proposed action.

Installation of the LRAD unit may generate typical construction noise, however installation activities would occur only during daylight hours and would be short in duration. The operation of the device has potential to be audible to nearby residential areas adjacent to the STM campus during emergency announcements. These announcements would be infrequent, only as necessary, and typically would be less than three minutes in duration. A graphic of the projected sound levels of the device and a comparison table of noise levels have been uploaded to the PMC database. The noise levels in surrounding neighborhood could reach 75 dBA for a select few houses. Further away from the device the levels drop to 70 dBA but would still be heard by surrounding residents. No offsite receptors would be affected above 75dBA. However, actual noise measurements would be taken to determine noise levels at the STM property boundary. Noise levels would likely exceed Jefferson County noise levels for residential areas as stated in Jefferson County Regulatory Policy Noise Abatement Policy Part 3, Regulations Chapter 1 (55dBA, 7am to 7pm; 50dBA, 7pm to 7am). This exceedance would be infrequent and in short duration, and these emergency notifications could be beneficial to nearby offsite receptors during an emergency event. During system commissioning, procedures would be implemented to determine the minimum volume necessary to achieve the desired broadcast range. Operational activities may also be modified based on public feedback. Periodic testing of the device would occur when other surrounding communities are testing their emergency alert equipment and therefore would be less disruptive.

Existing NREL health and safety policies and procedures would be followed including employee training, proper protective equipment, engineering controls, monitoring, and internal assessments. The potential exists for excessive noise exposure to workers in the immediate vicinity of the device when operated. Measures would be instituted to mitigate occupational exposures, such as signage, initial warning tone at low volume to alert workers in the area of an impending broadcast, periodic communication to workers regarding system operation, use of lockout/tagout during maintenance, and onsite noise measurements to determine the minimum volume required to achieve the necessary broadcast coverage. No building evacuation areas would be located closer than 150 feet until measurements are taken with the LRAD in operation to prevent employee overexposure while waiting in a building evacuation area. More information on and calculations of potential noise exposure can be found in the EQ-1 Environmental Questionnaire.

Visual impacts of the proposed action would be minimal. The LRAD unit has a small visual massing and would be visually obstructed from most offsite vantage points by existing STM campus facilities, such as the RSF, the parking garage, and the NREL Café.

There is potential for the operation of this proposed device to result in public controversy due to emergency announcements being audible to adjacent neighborhoods. NREL via their Public Affairs office would notify neighbors of this new device through existing communication methods. Whenever possible, testing would be coordinated when city/county tests their emergency alert systems. The potential auditory impact to surrounding neighborhoods would be minimal and may be beneficial in the event of an emergency.

NEPA DETERMINATION

The installation and operation of the proposed NREL STM emergency mass communication system would not have a significant individual or cumulative impact to human health and/or environment. DOE has determined that this project is consistent with actions covered under DOE CX B2.5 Facility Safety and Environmental Improvements; and therefore is categorically excluded from further NEPA review.

NEPA PROVISION

DOE has made a final NEPA determination for this award

Insert the following language in the award:

If you intend to make changes to the scope or objective of your project you are required to contact the Project Officer identified in Block 11 of the Notice of Financial Assistance Award before proceeding. You must receive notification of approval from the DOE Contracting Officer prior to commencing with work beyond that currently approved.

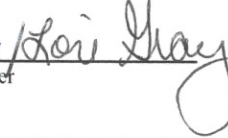
Note to Specialist :

National Renewable Energy Laboratory
NEPA review completed by Robert Smith on 10/24/2014.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____

 Electronically Signed By: Lori Gray
NEPA Compliance Officer



Date: 10/24/2014

FIELD OFFICE MANAGER DETERMINATION

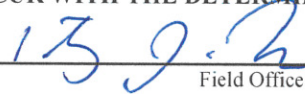
Field Office Manager review required

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: _____



Field Office Manager

Date: _____

10/29/14