

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 : NWTC Acoustic Propagation Testing; NREL Tracking No. 14-013

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
	DE-AC36-08GO28308	NREL-14-013	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:

DOE/EA 1378 (NREL NWTC)	Final Site-Wide Environmental Assessment of the National Renewable Energy Laboratory's National Wind Technology Center
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Rationale for determination:

NREL in support of General Electric (GE), is proposing to perform acoustic propagation testing at the National Renewable Energy Laboratory's (NREL's) National Wind Technology Center (NWTC), located southeast of the intersection of Colorado Highway (CO) 93 and CO-128, in Jefferson County, Colorado. The NWTC is a federally-owned facility that consists of 305 acres and is primarily used for wind energy research, development, and testing.

Specifically, GE would partner with NWTC to conduct a week-long acoustic test at the NWTC Site 4.0 meteorological (met) tower, attached as a Supporting Document in the PMC. GE would correlate the long range noise propagation with met tower sensor signals. This would include wind speed influence, wind shear effects, and temperature inversion for noise shadowing.

GE has proposed to temporarily install three acoustic emitters (speakers) along the 135 meter met tower, at three different heights (20 meters, 40 meters, and 80 meters). The transmitted sound would be measured by eight microphones that would be distributed at ground level at various ranges from the tower, on the NWTC site, along the NWTC access road, or along nearby publicly accessible roads or trails. The first and last day of the week-long study would be used to mobilize and demobilize equipment. For the three days in between, tones of 60, 125, 250, 500 and 1000 Hertz would be emitted from the speaker off and on for 22.5 minutes (one sequence) during four periods: morning, midday, afternoon, and evening. A total of 12 sequences would be performed.

As summarized in the sound level calculations, attached as a Supporting Document in the PMC, the loudest sound power level (120 decibel or dB) transmitted from the lowest position on the meteorological tower (height = 20 meters), yields sound power levels at the exterior of NWTC Building 251, which are between 41.5 dB (frequency = 63 Hz) and 67.2 dB (frequency = 1000 Hz). For all other transmitted sound power levels and meteorological tower heights, the sound power level at the exterior of Building 251 will be lower. These sound power levels at the exterior of Building 251 would be between "freeway traffic" and "light auto traffic", which mimics the existing daily traffic noise on Highway 93. These sound power levels are below the maximum noise levels permitted in Jefferson County for "light industrial" zones. Noise levels are not expected to affect NWTC personnel in the area. In addition, there are no "sensitive" human noise receptors, such as residences, schools, hospitals, or daycare centers located in the immediate vicinity of the NWTC. The nearest residence is approximately 2,200 feet (667 meters) to the west of the site. There are no other residences within a four-mile radius (6.4 kilometer) of the NWTC.

A U.S. EPA General Construction Permit for stormwater is not required for this project since there is not ground disturbance. No grading or clearing would be required for this project.

Per agency consultations conducted during the Site-Wide Environmental Assessment for the NWTC (DOE/EA-1378), no cultural resources, threatened or endangered species, wetlands, floodplains, or prime farmlands would be

impacted by this proposed project. This proposed project is a temporary activity. NREL, GE and any contractors would follow all federal, state, local safety and security regulations.

The proposed action was analyzed as part of the proposed action in the May 2002 Final Site-Wide Environmental Assessment of NREL's NWTC (DOE/EA-1378). A Finding of No Significant Impact determination for DOE/EA-1378 was issued in May 2002. As this proposed project was analyzed as part of the proposed action in DOE/EA-1378 and with no extraordinary circumstances identified, the May 2002 FONSI determination applies to this proposed action.

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 :

Completed by Amy L. VanDercook, P.G., Environmental Specialist on 04/22/2014.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____



Signed By: Lori Gray
NEPA Compliance Officer

Lori Gray

Date: 4/23/2014

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: _____