

PMC-EF2a

(2.04.02)

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



RECIPIENT:NREL

STATE: CO

**PROJECT TITLE :** STM & NWTC Security Upgrades; NREL Tracking # 11-015

<b>Funding Opportunity Announcement Number</b>	<b>Procurement Instrument Number</b>	<b>NEPA Control Number</b>	<b>CID Number</b>
		NREL-11-015	GO10337

**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-1440** Final Site-Site Wide Environmental Assessment of the National Renewable Energy Laboratory's (NREL) South Table Mountain Complex (February 2003)
- DOE/EA-1378** Final Site-Wide Environmental Assessment of the National Renewable Energy Laboratory's National Wind Technology Center
- B1.15** Siting, construction (or modification), and operation of support buildings and support structures (including, but not limited to, trailers and prefabricated buildings) within or contiguous to an already developed area (where active utilities and currently used roads are readily accessible). Covered support buildings and structures include those for office purposes; parking; cafeteria services; education and training; visitor reception; computer and data processing services; employee health services or recreation activities; routine maintenance activities; storage of supplies and equipment for administrative services and routine maintenance activities; security (including security posts); fire protection; and similar support purposes, but excluding facilities for waste storage activities, except as provided in other parts of this appendix.

Rational for determination:

This proposed project is for site security upgrades at the National Renewable Energy Laboratory's (NREL) South Table Mountain Complex (STM) and the National Wind Technology Center (NTWC). The 327-acre STM site is located on the southeast side of South Table Mountain, north of Interstate 70 (I-70), and west of the I-70 and Denver West Boulevard interchange in unincorporated Jefferson County, near Golden, Colorado. The STM Complex is a federally-owned facility that is dedicated to the research, development, and technology transfer of renewable energy and energy efficiency technologies, and consists of various laboratories, test and user facilities, and support infrastructure. The NWTC is located southeast of the intersection of Colorado Highway (CO) 93 and CO-128, in the unincorporated Jefferson County between Golden and Boulder, Colorado. The NWTC is a federally-owned facility that consists of 305 acres and is primarily utilized for wind energy research, development, and testing.

**PROPOSED ACTION**

The proposed security upgrades project would enhance security capabilities at both the STM and the NWTC by:

- Upgrading software and firmware on existing security equipment to enable state of the art surveillance such as thermal imaging and video analytics for motion detection and establishing virtual boundaries.
- Replace card readers and security cameras on buildings with state of the art equipment.
- Erect surveillance cameras on 30-foot poles in strategic locations. Up to 15 cameras would be installed at each site. See PMC database for camera location maps for STM and NWTC.
- Upgrade building sensors and detectors for increased building security.
- Upgrade the vehicle gates at the SEBs at both sites.
- Construct a fence along the southern border of the STM that meets the specifications for wildlife friendly design as provided by the Colorado Division of Wildlife.

Minimal trenching and other ground disturbing activities would occur at both the NWTC and the STM. The length of trenching needed is unknown at this time, but the width of the trenching would be relatively narrow 6" to 12". Once installed, construction workers would bury cables and reclaim disturbed ground in compliance with NREL EHS policy. Fence posts and poles would need to be installed creating 1 to 3 square foot disturbances at each location. Again, these areas would be reclaimed in compliance with NREL EHS policy. There would be approximately 300 fence posts at the STM site installed along the southern border of the STM and along the eastern edge of the southern 25 acres. The southern boundary fence for the STM would consist of a four rail design, made from recycled HDPE plastic, and be no higher than 42-inches in height. No fencing would be installed at the NWTC under this project. Camera poles would consist of up to 10-meter metal poles (see attached maps in PMC showing camera locations). There would be 15 surveillance cameras on the STM and 15 cameras at the NWTC. Some (4 to 6) cameras could be mounted on buildings instead of poles. Each would create a disturbance of 3 square feet during installation. The poles would be

galvanized metal and would match existing light poles. The PMC database contains specifications for the cameras, the camera poles, and the STM southern boundary fence

#### PREVIOUS NEPA DETERMINATIONS

Part of the Proposed Action analyzed in the July 2003 Site-Wide Environmental Assessment of the NREL STM Complex (DOE/EA-1440) included security structures and equipment. The Proposed Action as presented in Section 2.1.3 of Site-Wide Environmental Assessment scoped security upgrades to include: "Modifications and upgrades to security measures would be implemented in accordance with federal security mandates and site needs. These could include changes or additions to the site entrance building, gates, fences, alarms, surveillance systems, access control systems, or other security equipment and facilities. It might also include fencing of the entire NREL site, with the exception of the conservation land easement." Similarly, a component of the Proposed Action of the May 2002 Site-Wide Environmental Assessment of the NREL NWTC (DOE/EA-1378) included "additional or modified site entrance protection improvements and perimeter protection improvements as necessary." DOE/EA-1440 resulted in a Finding of No Significant Impact (FONSI) determination issued July 2003 and DOE/EA-1378 was issued a FONSI in May 2002.

#### IMPACTS OF PROPOSED ACTION

Clearing and excavation would be limited to the installation of fencing, camera poles and trenching. Minimal trenching and other ground disturbing activities would occur at both the NWTC and the STM. The length of trenching needed is unknown at this time (estimated at 1,000 feet at each site), but the width of the trenching would be relatively narrow 6" to 12". Once installed, cables would be buried and reclamation would occur in compliance with NREL EHS policy. The total disturbance created by this project is approximately 12,000 to 13,000 square feet (0.275 to 0.298) at the STM and 12,000 to 12,100 square feet (0.275 to 0.278) at the NWTC. A recent study at the NWTC and adjoining Rocky Flats Wildlife Refuge has discovered an area of unique ancient soils. These soils comprise a small area at the NWTC located near the eastern border and camera pole locations would be sited as to avoid disturbance in this sensitive natural resource area.

Fugitive air emissions from construction activities, such as excavating and grading, would be controlled in accordance with the existing STM land disturbance air permit (APCD# 08JE0889L), including mitigation measures like dust suppression. No land disturbance air permit with Colorado Department of Public Health and Environment is required at the NWTC. The construction phases would require the utilization of mobile point emission sources (construction equipment) but these emissions would be negligible given the size and duration of the activity.

No dredge or fill of Waters of the U.S. (WOUS) including wetlands or seeps is anticipated by the implementation of this project. Additionally, the U.S. Army Corps of Engineers identified no jurisdictional wetlands and no WOUS at the STM site in a recent Jurisdictional Determination. Per FEMA FIRM Map Panels 08059C0281E and 08059C0075E, the proposed project areas at the STM and NWTC are rated Zone X and are not within the 100-year floodplain. No areas of the STM or the NWTC are identified as Prime or Unique Farmland per USDA NRCS.

Per consultations with the Colorado State Historic Preservation Officer (SHPO) undertaken during the May 2002 Site-Wide Environmental Assessment (DOE/EA-1378) for the NWTC, there are no known cultural resources or historic buildings present within the site boundary or its immediate vicinity. Implementation of this security upgrade project would not impact known cultural resources in or near the STM, such as the ammunition igloo (5JF.843), the Colorado Amphitheater (5JF.842), or the Camp George West Historic District (5JF.145). Camera locations would be sited to avoid these resources. Equipment operators would be briefed about cultural and historic resources and the potential to find both at the STM. An EHS representative would be available to inspect any unearthed artifacts and if needed, an archeologist would be called to provide onsite consultation.

NREL and all contractors would abide by established protocols and procedures for the management of munitions of concern and other potentially hazardous artifacts from former Camp George West activities/operations at the STM. NREL and all contractors would follow all federal, state, local safety and security regulations.

There are no federally listed threatened or endangered species known to occur or designated critical habitat at the STM and NWTC. The STM is within the U.S. Fish & Wildlife Service's (USFWS) Denver Urban Drainage Block Clearance Zone for the Preble's mouse. Habitat for the Ute ladies-tresses orchid or the Colorado butterfly plant does not exist on the STM or NWTC as confirmed by vegetation surveys. The USFWS has designated Preble's mouse critical habitat on the Rocky Flats Wildlife Refuge adjacent to the NWTC, but project activities would not encroach into these areas. Migratory bird nesting surveys would be conducted between March 15th and September 15th prior to the beginning of construction activities and off-road vehicle traffic. The fencing along the southern border of the STM would be "wildlife friendly" and designed in accordance with the standards set forth in the Colorado Division of Wildlife document, Fencing with Wildlife In Mind (Hanophy, W. 2009). This will allow wildlife to cross freely while still designating the property boundary between the STM and Pleasant View Park.

The implementation of this project at the STM has the potential to cause public concern due to perceived impacts to

aesthetics, wildlife migration, privacy issues, and noise impacts. The visual impact by 30-ft camera poles would be extremely small in context to other ongoing and future STM campus build-out projects. Per the findings of the Site-Wide Environmental Assessment for NREL STM (DOE/EA-1440), visual impacts of the campus development was determined not to be significant. However, NREL EHS and the project team are considering painting poles in a color that blends with the sky or mesa background. There may be site standards to have them match similar poles such as light poles. Camera poles would be galvanized steel and would match existing light poles in design. Adjoining neighbors have expressed concern for wildlife resulting from NREL activities in public NREL meetings, past meetings at Jefferson County, and through public comments solicited during National Environmental Policy Act environmental assessments. This project would respond to those concerns by establishing a wildlife friendly fence and completing one step of maintaining wildlife movement through the STM site connecting Lena Gulch with the mesa top. Installation of the perimeter camera poles at the STM may cause concerns from neighbors regarding privacy. DOE and NREL Public Relations would coordinate efforts to notify neighbors of this project prior to installation of the camera poles.

#### NEPA DETERMINATION

General upgrades to security infrastructure, including perimeter protection, surveillance systems, and fencing were analyzed as part of the scope of the Proposed Action of the July 2003 Site-Wide Environmental Assessment of NREL STM (DOE/EA-1440) and May 2002 Site-Wide Environmental Assessment of NREL NWTC (DOE/EA-1378). As no extraordinary circumstances were identified in this subsequent analysis, the May 2002 Finding of No Significant Impact (FONSI) determination for DOE/EA-1378 applies to this proposed action at the NWTC and the July 2003 FONSI determination for DOE/EA-1440 at the STM. While installation of 30-ft camera poles for a perimeter electronic fence was not specifically analyzed in DOE/EA-1378 or DOE/EA-1440, it would qualify for Categorical Exclusion B1.15.

#### NEPA PROVISION

DOE has made a final NEPA determination for this award

Insert the following language in the award:

Note to Specialist :

EF2a prepared by Rob Smith on 03/10/2011

#### SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: \_\_\_\_\_

  
NEPA Compliance Officer

Date: 3/10/2011

#### 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: 3/10/2011