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PMO-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 : ESIF Window Retrofit; NREL Tracking No. 14-018

<b>Funding Opportunity Announcement Number</b>	<b>Procurement Instrument Number</b>	<b>NEPA Control Number</b>	<b>CID Number</b>
	DE-AC36-08GO28308	NREL-14-018	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:

<b>B1.20 Protection of cultural resources, fish and wildlife habitat</b>	Small-scale activities undertaken to protect cultural resources (such as fencing, labeling, and flagging) or to protect, restore, or improve fish and wildlife habitat, fish passage facilities (such as fish ladders and minor diversion channels), or fisheries. Such activities 109 would be conducted in accordance with an existing natural or cultural resource plan, if any.
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Rationale for determination:

The U.S. Department of Energy (DOE) proposes retrofit of windows at the Energy Systems Integration Facility (ESIF) at the National Renewable Energy Laboratory (NREL) South Table Mountain (STM) campus located in Golden, Colorado. The purpose of the retrofit is to add a type of window film that is specifically designed to make windows more visible to birds to reduce or eliminate bird strikes.

**PROPOSED ACTION**

This project would retrofit the majority of windows on ESIF by placing a window film specifically designed for reducing or eliminating bird/window collisions over the exterior surface of the ESIF. The film would consist of a pattern of dots or lines that research has shown makes windows more visible to birds. Most of the windows would be covered with a dot pattern, which would consist of 3/4" dots on 2" centers (2" by 2"). This would be the pattern covering the entire west atrium glass wall, certain windows along the south-facing first floor wall, east-facing office balcony windows, and east-facing atrium windows. Along the high-bay section of the building, the east-facing windows would have a pattern of horizontal lines that are spaced 2" apart. A total of 6,800 square feet of windows on the ESIF would be treated with this window film. Prior to installation of the window film, NREL's subcontractor would properly clean and prepare the exterior surface of the ESIF windows with a solution of isopropyl alcohol and water. The project Statement of Work and construction drawings are uploaded to the PMC database. The project would begin at the end of July and would be completed within one month.

**IMPACTS OF PROPOSED ACTION**

The proposed project would not require any ground disturbance activities; therefore no stormwater quality or erosion impacts are anticipated. No runoff from the pre-installation window washing is anticipated as the isopropyl alcohol and water solution would evaporate.

The project would require the utilization of mobile point air emission sources, such as trucks, boom lifts, etc., but these emissions would be negligible given the size and duration of the construction activity. Up to 2 gallons of isopropyl alcohol mixed in solution with water would be used during the pre-installation window cleaning and would evaporate during this process.

There would be noise typical of construction equipment during construction. Work would be conducted only during daylight hours. Construction-related noise would consist of a short-term increase in ambient noise levels. Noise impacts would vary with the phase of construction and occur intermittently. Project activities would comply with applicable noise ordinances.

The product installed consists of a plastic cover sheet and an installation masking. The masking holds in place a

pattern of 1/4 inch dots or lines that would adhere to the windows. The masking is removed to leave only the dots in a 2" by 2" pattern or lines spaced 2" apart on the windows. All masking material and other municipal solid waste would be properly disposed of. No hazardous waste generation is anticipated.

The isopropyl alcohol for the pre-installation window washing and preparation would be stored in labeled containers and be in secondary containment. Workers would be conducting installation on a boom lift and would be properly trained and secured on the machinery. A NREL EHS Health and Safety representative would be on hand during installation and would conduct safety inspections prior to work beginning. All NREL EHS policies and procedures would be followed and OSHA regulations followed.

The application of the window film would slightly alter the appearance of the windows with the presence of 3/4" white dots in a 2" pattern or approximately 1/8" thick horizontal lines spaced 2" apart. However, these patterns would be not visible at a distance to the human eye and would not change the visual massing of the ESIF's exterior features. Additionally, the patterns were specifically chosen to minimize visual impacts to the ESIF workers and preserve day lighting critical to the sustainable design of the building.

**NEPA DETERMINATION**

DOE has determined based upon the information above, there are no extraordinary circumstances presented by this proposed action. DOE has determined the proposed project is consistent with the actions contained in DOE categorical exclusion B1.20 "Protection of cultural resources, fish, and wildlife habitat."

**NEPA PROVISION**

DOE has made a final NEPA determination for this award

Insert the following language in the award:

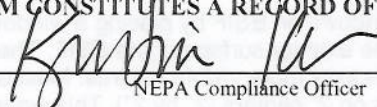
If you intend to make changes to the scope or objective of your project you are required to contact the Project Officer identified in Block 11 of the Notice of Financial Assistance Award before proceeding. You must receive notification of approval from the DOE Contracting Officer prior to commencing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

Note to Specialist :

ND prepared by Robert V. Smith, CHMM on 7/28/2014.

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

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



NEPA Compliance Officer

Date: \_\_\_\_\_

7/28/2014

**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: \_\_\_\_\_