

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: STM Solar Reflector Testing UAS Flights

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
	DE-AC36-08GO28308	NREL-19-046	GO28308

Based on my review of the information concerning the proposed action, as NEPA Compliance Officer (authorized under DOE Policy 451.1), I have made the following determination:

CX, EA, EIS APPENDIX AND NUMBER:

Description:

B3.2 Aviation activities Aviation activities for survey, monitoring, or security purposes that comply with Federal Aviation Administration regulations.

Rationale for determination:

The U.S. Department of Energy's (DOE) National Renewable Energy Laboratory (NREL) is proposing to use an unmanned aircraft system (UAS) to conduct photography and videography of the heliostat (solar reflector) at the STM high-flux solar furnace (HFSF) site located on the South Table Mountain Campus in Golden, Colorado. The objective is to determine the optimum elevation, camera lens, and technique to record mirror alignment errors in a heliostat.

The UAS flights would maintain speeds of less than 20 mph, stay 15 feet or more from personnel, and fly no closer than 3 feet to any structure. Flights would be conducted between October 21st and December 10th, 2019. Multiple flights would be conducted as weather and UAS availability allows. The UAS would be flown by a trained DOE M&O contractor who has FAA certification for these activities.

Flights would be conducted within Class G airspace, which requires no notifications, authorizations, or permits. All flights and associated project activities would be conducted in accordance with NREL's Operating Program 650-7 "Unmanned Aircraft Systems (July 9, 2019)" and with FAA Part 107 regulations.

A risk assessment has been completed prior to flight activities; operational parameters, hazards, and controls are identified and set forth in an Aviation Safety Plan that was drafted in consultation with NREL Environment, Safety, and Health staff and the UAS Steering Committee.

The Aviation Safety Plan for this project has been reviewed and approved by the Golden Field Office's Aviation Manager and Office Director. Per the aviation manager, "the identified flight risks for the subject mission have been adequately identified and are considered low risk per the DOE Risk Assessment".

Should additional training flights be proposed outside the arranged dates, an additional Aviation Safety Plan would be required. If flight conditions change or the documented mitigation factors are unable to be implemented the mission will need to be paused so a reevaluation of hazards can occur.

NEPA PROVISION

DOE has made a final NEPA determination.

Notes:

NEPA review completed by Laura Margason on October 15, 2019

FOR CATEGORICAL EXCLUSION DETERMINATIONS

The proposed action (or the part of the proposal defined in the Rationale above) fits within a class of actions that is listed in Appendix A or B to 10 CFR Part 1021, Subpart D. To fit within the classes of actions listed in 10 CFR Part 1021, Subpart D, Appendix B, a proposal must be one that would not: (1) threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, or similar requirements of DOE or Executive Orders; (2) require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities (including incinerators), but the proposal may include categorically excluded waste storage, disposal, recovery, or treatment actions or facilities; (3) disturb hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products that preexist in the environment such that there would be uncontrolled or unpermitted releases; (4) have the potential to cause significant impacts on environmentally sensitive resources, including, but not limited to, those listed in paragraph B(4) of 10 CFR Part 1021, Subpart D, Appendix B; (5) involve genetically engineered organisms, synthetic biology, governmentally designated noxious weeds, or invasive species, unless the proposed activity would be contained or confined in a manner designed and operated to prevent unauthorized release into the environment and conducted in accordance with applicable requirements, such as those listed in paragraph B(5) of 10 CFR Part 1021, Subpart D, Appendix B.

There are no extraordinary circumstances related to the proposed action that may affect the significance of the environmental effects of the proposal.

The proposed action has not been segmented to meet the definition of a categorical exclusion. This proposal is not connected to other actions with potentially significant impacts (40 CFR 1508.25(a)(1)), is not related to other actions with individually insignificant but cumulatively significant impacts (40 CFR 1508.27(b)(7)), and is not precluded by 40 CFR 1506.1 or 10 CFR 1021.211 concerning limitations on actions during preparation of an environmental impact statement.

The proposed action is categorically excluded from further NEPA review.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature:  Casey Strickland Date: 10/18/2019
NEPA Compliance Officer

FIELD OFFICE MANAGER DETERMINATION

- Field Office Manager review not required
- Field Office Manager review required

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

Field Office Manager's Signature: _____ Date: _____
Field Office Manager