

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: NREL-19-044 RotorHook UAS flights - Flatirons Campus

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
	DE-AC36-08GO28308	NREL-19-044	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 a new research project involving a novel nacelle-mounted crane (RotorHook) system that is being validated in a series of lifts on the Siemens wind turbine.

The UAS flights would take place at site 4.4 on the NREL Flatirons Campus (formally called the National Wind Technology Center) located in Jefferson County, Colorado. Approximately 20 lifts would take place between September 4th and 30th, 2019. A UAV would be flown during some or all of these lifts to provide documentation.

Flights would be piloted by Red Mountain Scientific (RMS), an authorized DOE Commercial Aviation Services provider. Flights would be conducted at or below the 400 foot allowable ceiling for UAS operations within the Class D airspace of Rocky Mountain Metropolitan Airport; in winds less than 24 mph; and within a launch area clear of obstructions in every direction by 50'. Flights would adhere to and take place in accordance with NREL policies, procedures, and safety requirements for conducting UAS missions on DOE facilities. Due to the project extending past the typical 48-hour flight notice period, notification of each flight would be provided to the Aviation Manager at least 48 hours in advance of each flight that would take place within the dates mentioned above.

RMS would conduct the flights in compliance with their Small UAS Operating Policies and Procedures 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 Flight Plan for this project has been submitted 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 mitigated to moderate risk per the DOE Risk Assessment".

Flights would not occur inside the boundaries of the Rocky Flats National Wildlife Refuge. In the event of accidental landing onto the refuge, DOE's Special Use Permit (61172-19-001) with the USFWS US Fish and Wildlife Service would allow for retrieval of the equipment.

Should 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 August 29, 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

NEPA Compliance Officer

Date: 9/4/2019**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: _____

Field Office Manager

Date: _____