

**U.S. DEPARTMENT OF ENERGY
OFFICE OF ENERGY EFFICIENCY AND RENEWABLE ENERGY
NEPA DETERMINATION**



RECIPIENT: New Mexico Institute of Mining and Technology

STATE: NM

PROJECT TITLE: Real-time building air leakage visualizer

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0002788	DE-EE0010914	GFO-0010914-001	GO10914

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:

A9 Information gathering, analysis, and dissemination

Information gathering (including, but not limited to, literature surveys, inventories, site visits, and audits), data analysis (including, but not limited to, computer modeling), document preparation (including, but not limited to, conceptual design, feasibility studies, and analytical energy supply and demand studies), and information dissemination (including, but not limited to, document publication and distribution, and classroom training and informational programs), but not including site characterization or environmental monitoring. (See also B3.1 of appendix B to this subpart.)

B3.2 Aviation activities

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

B3.6 Small-scale research and development, laboratory operations, and pilot projects

Siting, construction, modification, operation, and decommissioning of facilities for smallscale research and development projects; conventional laboratory operations (such as preparation of chemical standards and sample analysis); and small-scale pilot projects (generally less than 2 years) frequently conducted to verify a concept before demonstration actions, provided that construction or modification would be within or contiguous to a previously disturbed or developed area (where active utilities and currently used roads are readily accessible). Not included in this category are demonstration actions, meaning actions that are undertaken at a scale to show whether a technology would be viable on a larger scale and suitable for commercial deployment.

Rationale for determination:

The U.S. Department of Energy (DOE) is proposing to provide funding to New Mexico Institute of Mining and Technology (NMIMT), to develop an Air Leakage Visualization (ALV) system for identifying air leakage in building envelopes.

This award will be executed over three budget periods and 12 tasks.

Activities in Tasks 1 through 9 will include planning, lab work, development of technology practices, and development of prototypes systems, to detect building envelope leakage, internal and external. Tasks 10 through 12 will include field testing of developed technology in tasks 1 through 9. Prototype drone-based and manual ALV systems will be assembled and field tested in Budget Periods 2 and 3. Project work will occur in various locations; Socorro, NM (NMIMT campus); Walpole, MA; Atlanta, GA; and Oak Ridge, TN.

Proposed activities in Tasks 1 through 9 would occur entirely within existing research and development facilities that are purpose-built for the type and scale of activities being proposed; therefore, no adverse impacts to sensitive resources are expected as a result of the proposed activities at any location. No change in the use, mission, or operation of existing facilities would arise out of this effort.

Testing activities in Tasks 10 through 12 would be non-contact, images would be taken on both the interior and exterior of building envelopes. Interior images would be gathered using manual ALV systems, and exterior images gathered by drone-based ALV systems. Testing locations are not outlined in the SOPO, locations would be determined prior to Budget Period 3.

This project includes the use of small unmanned aerial systems (sUAS). The recipient is responsible for ensuring that all activities involving sUAS are compliant with 14 CFR Part 107 or an applicable Certificate of Waiver or Authorization (COA). This includes, but is not limited to, aircraft requirements such as remote pilot-in-command certification, authorities and responsibilities; ensuring the sUAS is in a condition for safe operation; registration; understanding airspace classifications and requirements; and accident reporting (if applicable). If any test flight locations are in controlled airspace, the Recipient is responsible for coordinating with, and receiving permission from, air traffic control

prior to initiating field test flights in controlled airspace.

Existing corporate health, safety, and environmental policies, procedures, and regulations would be followed at all facilities, including personnel training, proper personal protective equipment (PPE), engineering controls, monitoring, and internal assessments. Project activities would occur entirely within and around existing facilities; therefore, no adverse impacts to sensitive resources are expected as a result of the proposed activities.

Any work proposed to be conducted at a federal facility may be subject to additional NEPA review by the cognizant federal official and must meet the applicable health and safety requirements of the facility.

NEPA PROVISION

DOE has made a final NEPA determination.

Include the following condition in the financial assistance agreement:

The Recipient is responsible for ensuring that all activities involving small unmanned aircraft systems (sUAS) are compliant with 14 CFR Part 107 or an applicable Certificate of Waiver or Authorization (COA). This includes, but is not limited to, aircraft requirements such as remote pilot-in-command certification, authorities and responsibilities; ensuring the sUAS is in a condition for safe operation; registration; understanding airspace classifications and requirements; and accident reporting (if applicable). If any test flight locations are in controlled airspace, the Recipient is responsible for coordinating with, and receiving permission from, air traffic control prior to initiating field test flights in controlled airspace.

Notes:

Building Technologies Office (BTO)

This NEPA Determination requires legal review of the tailored NEPA provision.

NEPA review completed by Dustin Hill, 10/24/2023.

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: _____

Electronically
Signed By: Casey Strickland

NEPA Compliance Officer

Date: 10/24/2023

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: _____