PMC-ND

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

RECIPIENT: NREL **STATE:** CO

PROJECT TITLE : NREL-23-005 STEP Operations - Golden, CO

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
	DE-AC36-08GO28308	GFO-NREL-23-005	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:

A11 Technical advice and assistance to organizations	Technical advice and planning assistance to international, national, state, and local organizations.
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.)
B1.16 Asbestos removal	Removal of asbestos-containing materials from buildings in accordance with applicable requirements (such as 40 CFR part 61, “National Emission Standards for Hazardous Air Pollutants”; 40 CFR part 763, “Asbestos”; 29 CFR part 1910, subpart I, “Personal Protective Equipment”; and 29 CFR part 1926, “Safety and Health Regulations for Construction”; and appropriate state and local requirements, including certification of removal contractors and technicians).
B1.3 Routine maintenance	Routine maintenance activities and custodial services for buildings, structures, rights-of-way, infrastructures (including, but not limited to, pathways, roads, and railroads), vehicles and equipment, and localized vegetation and pest control, during which operations may be suspended and resumed, provided that the activities would be conducted in a manner in accordance with applicable requirements. Custodial services are activities to preserve facility appearance, working conditions, and sanitation (such as cleaning, window washing, lawn mowing, trash collection, painting, and snow removal). Routine maintenance activities, corrective (that is, repair), preventive, and predictive, are required to maintain and preserve buildings, structures, infrastructures, and equipment in a condition suitable for a facility to be used for its designated purpose. Such maintenance may occur as a result of severe weather (such as hurricanes, floods, and tornados), wildfires, and other such events. Routine maintenance may result in replacement to the extent that replacement is in-kind and is not a substantial upgrade or improvement. In-kind replacement includes installation of new components to replace outmoded components, provided that the replacement does not result in a significant change in the expected useful life, design capacity, or function of the facility. Routine maintenance does not include replacement of a major component that significantly extends the originally intended useful life of a facility (for example, it does not include the replacement of a reactor vessel near the end of its useful life). Routine maintenance activities include, but are not limited to: (a) Repair or replacement of facility equipment, such as lathes, mills, pumps, and presses; (b) Door and window repair or replacement; (c) Wall, ceiling, or floor repair or replacement; (d) Reroofing; (e) Plumbing, electrical utility, lighting, and telephone service repair or replacement; (f) Routine replacement of high-efficiency particulate air filters; (g) Inspection and/or treatment of currently installed utility poles; (h) Repair of road embankments; (i) Repair or replacement of fire protection sprinkler systems; (j) Road and parking area resurfacing, including construction of temporary access to facilitate resurfacing, and scraping and grading of unpaved surfaces; (k) Erosion control and soil stabilization measures (such as reseeding, gabions, grading, and revegetation); (l) Surveillance and maintenance of surplus facilities in accordance with DOE Order 435.1, “Radioactive Waste Management,” or its successor; (m) Repair and maintenance of transmission facilities, such as replacement of conductors of the same nominal voltage, poles, circuit breakers, transformers, capacitors,crossarms, insulators, and downed powerlines, in accordance, where appropriate, with 40 CFR part 761 (Polychlorinated Biphenyls Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions) or its successor; (n) Routine testing and calibration of facility components, subsystems, or portable equipment (such as control valves, in-core monitoring devices, transformers, capacitors, monitoring wells, lysimeters, weather stations, and flumes); (o) Routine decontamination of the surfaces of equipment, rooms, hot cells, or other interior surfaces of buildings (by such activities as wiping with rags, using strippable latex, and minor vacuuming),

	and removal of contaminated intact equipment and other material (not including spent nuclear fuel or special nuclear material in nuclear reactors); and (p) Removal of debris.
B1.33 Stormwater runoff control	Design, construction, and operation of control practices to reduce stormwater runoff and maintain natural hydrology. Activities include, but are not limited to, those that reduce impervious surfaces (such as vegetative practices and use of porous pavements), best management practices (such as silt fences, straw wattles, and fiber rolls), and use of green infrastructure or other low impact development practices (such as cisterns and green roofs).
B1.34 Lead-based paint containment, removal, and disposal	Containment, removal, and disposal of lead-based paint in accordance with applicable requirements (such as provisions relating to the certification of removal contractors and technicians at 40 CFR part 745, “Lead-Based Paint Poisoning Prevention In Certain Residential Structures”).
B2.1 Workplace enhancements	Modifications within or contiguous to an existing structure, in a previously disturbed or developed area, to enhance workplace habitability (including, but not limited to, installation or improvements to lighting, radiation shielding, or heating/ventilating/air conditioning and its instrumentation, and noise reduction).
B3.1 Site characterization and environmental monitoring	Site characterization and environmental monitoring (including, but not limited to, siting, construction, modification, operation, and dismantlement and removal or otherwise proper closure (such as of a well) of characterization and monitoring devices, and siting, construction, and associated operation of a small-scale laboratory building or renovation of a room in an existing building for sample analysis). Such activities would be designed in conformance with applicable requirements and use best management practices to limit the potential effects of any resultant ground disturbance. Covered activities include, but are not limited to, site characterization and environmental monitoring under CERCLA and RCRA. (This class of actions excludes activities in aquatic environments. See B3.16 of this appendix for such activities.) Specific activities include, but are not limited to: (a) Geological, geophysical (such as gravity, magnetic, electrical, seismic, radar, and temperature gradient), geochemical, and engineering surveys and mapping, and the establishment of survey marks. Seismic techniques would not include large-scale reflection or refraction testing; (b) Installation and operation of field instruments (such as stream-gauging stations or flow-measuring devices, telemetry systems, geochemical monitoring tools, and geophysical exploration tools); (c) Drilling of wells for sampling or monitoring of groundwater or the vadose (unsaturated) zone, well logging, and installation of water-level recording devices in wells; (d) Aquifer and underground reservoir response testing; (e) Installation and operation of ambient air monitoring equipment; (f) Sampling and characterization of water, soil, rock, or contaminants (such as drilling using truck- or mobile-scale equipment, and modification, use, and plugging of boreholes); (g) Sampling and characterization of water effluents, air emissions, or solid waste streams; (h) Installation and operation of meteorological towers and associated activities (such as assessment of potential wind energy resources); (i) Sampling of flora or fauna; and (j) Archeological, historic, and cultural resource identification in compliance with 36 CFR part 800 and 43 CFR part 7.
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 proposes to operate and maintain the South Table Mountain Energy Park (STEP) as part of the National Renewable Energy Laboratory (NREL). DOE acquired the property as part of a multi-party land exchange with Jefferson County Open Space and the State of Colorado. DOE completed a NEPA review of the land exchange, and it was signed by the DOE NEPA Compliance Officer on January 19, 2022 (NEPA Control Number: GFO-LandExchangeJeffCO-001). Now that DOE has acquired ownership of the parcel, DOE proposes to operate and maintain the site.

Campus Information
The STEP campus is located just south of NREL’s South Table Mountain Campus (STM) in Golden, Colorado. The campus consists of approximately 6.6 acres of land and was formerly the Colorado Correctional Facility. The campus consists of numerous buildings of various age that were used as dormitories, storage and maintenance buildings, a chapel, administrative offices, a gym, and a cafeteria. The campus would be managed by NREL and is envisioned to be a hub for startups, entrepreneurs, and research innovation. Operation of the site will begin in January 2023.

Campus Assessments and Improvements
The following activities would occur to address site security, pedestrian and vehicle circulation, and fire suppression:

- Soil and water sampling;
- Hazard assessments (such as sampling for lead-based paint and asbestos);

• Testing existing building and life safety systems;
• Fire hydrant testing;
• Moving equipment and materials to the campus;
• Disposing of existing waste items (such as universal waste) left by the previous site owner;
• Removing existing signage and installation of NREL signage;
• Removing existing fencing, gates, and razor wire;
• Improving emergency vehicle access (such as removing vegetation and adding road base);
• Installing fencing, bollards, and planters for physical security;
• Installing card readers and security cameras;
• Installing a fiber optic line from the STM campus to Building 95 via the Fed Center (at STEP, a connection would be made to Building 95 from existing lines at South Golden Road; the connection would either be via trench or aerial lines to Building 95); and
• Installing IT systems and network connections from Building 95 to other buildings at STEP (connections could be direct bore, trenched, or via aerial lines).

Stormwater Conveyance
Improvements would be made to the campus to support new water and sewer lines as needed. Site drainage would be addressed by adding berms in upslope areas, installing roof, foundation, and trench drains to specific buildings, installing inlets and/or curb and gutter as needed, and installing storm sewer pipes to direct water to the closest drainageway.

Building Renovations
A portion of the existing buildings would be renovated to accommodate office and collaboration space. Initial renovation activities would include:

• Mitigating asbestos and lead-based paint as needed;
• Renovating the existing café kitchen and dining room to create a large meeting or gathering space, add restrooms, and power and data connections for IT and AV capabilities;
• Remodeling the interiors of Buildings 12 through 16 and 95, 96, and 97 to create office or collaboration space (work would vary by building but may involve installing HVAC equipment and ducts, upgrading or replacing existing plumbing and electrical utilities, IT equipment, lighting, security panels, card readers, security cameras, and restrooms); and
• Installing new ADA compliant concrete walkways and required clearances at the entrance of Buildings 12 through 16 and an ADA ramp at Building 96.

Operation and Maintenance
Activities that would occur at the STEP campus would include administrative work, meeting and training facilities, tours, and program administration. Routine repair and maintenance activities would also occur to maintain the site.

Routine activities that would occur at the side include landscaping, maintaining and painting roads and walkways, deicing and removing snow, collecting and removing trash and other non-hazardous waste, testing and calibrating facility components, maintaining stormwater conveyance infrastructure, operating shuttles to and from the STM campus, and responding to and cleaning spills (such as from vehicles, equipment, etc.). Facility infrastructure, utilities, and equipment would be maintained, repaired, replaced, and cleaned as needed.

Research
Research activities occurring at STEP would generally be consistent with existing research activities at NREL's STM campus, such as bench scale wet chemistry, materials research, and data analysis and dissemination. As detailed information becomes available for specific research to be conducted at STEP, an additional NEPA review shall be completed prior to conducting those research activities at the site.

Activity Changes and Future Work
Should changes be made to any of the activities described above, additional supplemental NEPA review may be completed if needed. Additionally, DOE shall complete additional NEPA reviews as details about future work to occur at STEP become available.

Analysis
Cultural Resources
The STEP campus is a part of the Camp George West Historical District. The buildings on site were constructed before or during the World War II and Works Progress Administration era and the buildings illustrate basalt rockwork used as building foundational walls. This rockwork, an exterior feature, is the primary characteristic of the buildings within the district. Contributing features to the district include entry ways, gates, concrete tent pads, a railway underpass, and other features that exhibit basalt rockwork.

DOE will be initiating consultation with the Colorado State Historic Preservation Officer (SHPO) in accordance with Section 106 of the National Historic Preservation Act for potential impacts to historic properties. Any work that could

affect historic resources shall not proceed until consultation is concluded.

Threatened and Endangered Species and Migratory Birds
The U.S. Fish and Wildlife Service's iPac database identified seven (7) T&E species that could be found in the area, including: the Gray Wolf, Piping Plover, Whooping Crane, Pallid Sturgeon, Monarch Butterfly, Ute Ladies'-tresses, and Western Prairie Fringed Orchid. Additionally, the database identified that the Bald Eagle and seven (7) birds of conservation concern could be found in the area, including the Chimney Swift, Clarke's Grebe, Ferruginous Hawk, Lesser Yellowlegs, Lewis's Woodpecker, Long-eared Owl, and Red-headed Woodpecker.

Because the site is developed and is in a developed area, it is unlikely that any of these species would be found on the site. It is possible that the Monarch Butterfly could encounter the site temporarily or to pass through, but operation and maintenance of the site is not anticipated to impact this species.

Wetlands or Floodplains
No wetlands or floodplains are found on the site.

Ground Disturbance
As a result of the proposed project, the use, mission, and operation of the facility would change from a correctional facility to a research and collaboration facility. As a result, modifications would be made to existing facilities and some ground disturbing activities would occur.

All ground disturbance would occur in areas previously disturbed during the development and operation of the site, specifically as Camp George West (a training and staging facility for the Colorado National Guard) and as the Colorado Correctional Facility. All activities would be conducted in accordance with existing NREL policies and procedures that guide such work. All required permits shall be obtained prior to conducing work and all disturbed areas would be restored and revegetated as appropriate.

Air Emissions
Renovation activities at STEP would result in de minimis air emissions. Operation of STEP would result in emissions, but quantities are unknown at this time and would depend on research activities. Should an air permit be required, it would be obtained prior to commencing such work.

Pre-Existing Contamination
A Phase 1 Environmental Site Assessment was completed for this site in 2021 and identified the following environmental conditions:

• The Pleasant View tetrachloroethene groundwater plume is considered a Recognized Environmental Condition for the site; and
• The UST removals/LST listings at this facility is considered an Historical Recognized Environmental Condition for the Site.

The above conditions are included in site documentation and will be considered in future planning as appropriate. The assessment also noted that lead-based paint and asbestos containing building materials may be present in campus buildings.

Asbestos is known to be in the café and Buildings 12, 13, and 96 and would be mitigated in accordance with requirements. Prior to commencing demolition and/or renovation activities, sampling for lead-based paint would be completed and remediated if present.

Hazardous and Non-Hazardous Waste
Activities at STEP would generate hazardous and non-hazardous wastes. All waste materials would be managed, stored, used, and disposed of in accordance with requirements. If a waste generator identification number is required for the site, it would be obtained prior to hazardous waste generation at the site. Existing NREL procedures that govern hazardous and non-hazardous wastes would be implemented at the site. Herbicides and pesticides would be used as needed and managed in accordance with requirements.

Safety
Workers could potentially be exposed to various hazards (such as physical, chemical, and electrical hazards) during operation, maintenance, and research activities. Existing NREL health and safety policies and procedures would be followed, including employee training, proper protective equipment, engineering controls, and monitoring. All work would be conducted in accordance with NREL's written procedures or authorized via a Safe Work Permit.

NEPA PROVISION

DOE has made a final NEPA determination.

Include the following condition in the financial assistance agreement:

Work that could impact historic resources are prohibited until concurrence from the SHPO is obtained.

Additional NEPA review shall be completed as needed.

All required permits shall be obtained prior to commencing work.

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: Lisa Jorgensen Date: 1/18/2023

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