

PMC-ND

(1.08.09.15)

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



RECIPIENT: NREL

STATE: CO

PROJECT TITLE : Real Property Lease at Sustainable, Energy, and Environment Complex (SEEC) – NREL Tracking No. 13-015

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
	DE-AC36-08GO28308	NREL-13-015	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:

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.)
A11 Technical advice and assistance to organizations	Technical advice and planning assistance to international, national, state, and local organizations.
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.
B3.15 Small-scale indoor research and development projects using nanoscale materials	Siting, construction, modification, operation, and decommissioning of facilities for indoor small-scale research and development projects and small-scale pilot projects using nanoscale materials in accordance with applicable requirements (such as engineering, worker safety, procedural, and administrative regulations) necessary to ensure the containment of any hazardous materials. Construction and modification activities would be within or contiguous to a previously disturbed or developed area (where active utilities and currently used roads are readily accessible).

Rationale for determination:

The U.S. Department of Energy's National Renewable Energy Laboratory (NREL) is proposing to enter into a lease agreement with University of Colorado to lease laboratory and office space in the new Sustainability, Energy, and Environment Complex (SEEC) at University of Colorado Boulder's (CU-Boulder) East Campus Research Park in Boulder, Colorado. NREL would only be a tenant at this facility and no DOE funding is being used for the construction of the SEEC.

PROPOSED ACTION

The CU-Boulder's SEEC is being built in their East Campus Research Park and located to northwest of the intersection of Foothills Parkway and Colorado Ave. The SEEC would be created by the construction of a three- to four-story 83,708 square-foot wet lab building and the renovation of an already-existing 280,000 square-foot building for a dry laboratory, classrooms and office space. This facility is already under construction and is being built independent of any DOE or NREL action or funding, and NREL would only be a tenant at this facility.

NREL would lease approximately 25,072 square-feet of usable laboratory space including wet-labs and 17,698 square-feet of usable office space at SEEC to accommodate current and anticipated new collaborative research programs between NREL and CU-Boulder. The lease agreement between CU-Boulder and NREL would be finalized in Fiscal Year 2014, and occupancy of the new laboratories and offices would begin January 1, 2015 and end December 31, 2025. NREL proposes to lease specialized laboratories and research space for bench-scale research (indoor small-scale research and development projects and small-scale pilot projects) in photobiology, photochemistry, photovoltaics, batteries and fuel cells, advanced energy measurement, and commercial building in furtherance of energy efficiency and renewable energy research. These activities would be conventional laboratory operations similar to operations currently done at the NREL South Table Mountain (STM) campus including research

in nano-materials, synthetic biology, advanced measurement science, and building efficiency. Eight NREL employees currently stationed at the NREL STM campus would be relocated to SEEC in 2015 and up to 35 additional new NREL employees may be hired over the life of the lease. Up to 24 new CU-Boulder faculty with NREL joint appointments would co-locate in the NREL CEED laboratory and office space.

At the end of the lease term, all equipment, materials, and supplies would be relocated to the NREL STM facilities. The vacated laboratory space and offices would be subsequently cleaned and/or decontaminated in accordance with industry standard practices and techniques.

IMPACTS OF PROPOSED ACTION

This proposed project would only involve the lease of lab and office within the SEEC and the renewable energy and energy efficiency research and development activities that would be conducted within that space. This facility is already under construction and is being built independently of any DOE or NREL action, and NREL would only be a tenant at this facility upon completion of construction activities. Therefore, no land disturbance, or impacts to floodplains, wetlands, cultural resources, or threatened and endangered species is anticipated by proposed NREL activities.

Air emissions for this proposed project would primarily consist of fugitive emissions of volatile organic compounds (VOCs) and hazardous air pollutants from bench-scale wet chemistry activities. To minimize emissions, non-hazardous materials would be substituted for hazardous materials whenever feasible, containers would be kept closed when not in use, evaporation of solvents would be prohibited, and the smallest amount of material necessary to meet research objectives would be incorporated into the research process. Additional non-bench-scale emissions would occur from the combustion of natural gas for building comfort heating. The use of dispersible nano-materials would only occur under HEPA filtration. No air permits or notifications are anticipated to be required for this proposed action. If air permits or notifications are required for activities or operations within the NREL leased space, NREL would be responsible for obtaining them and abiding by the permit conditions.

All wastewater effluent restrictions would be regulated by the Industrial Waste Water Pretreatment permit issued by the City of Boulder (permit# SIU 2013-2) and administered by CU-Boulder. Discharges to the wastewater system would consist of rinsate from rinsing empty containers, and washwater from washing laboratory glassware and equipment. NREL EHS would enforce NREL's and CU-Boulder's policy of not allowing chemicals down the drain. Therefore, additional chemical disposal cup sinks would be part of the lab fume hood design and additional water would be at hand in the event that small spills in fume hoods occur. No stormwater discharges are anticipated by NREL's activities.

NREL personnel and their CU colleagues would be conducting research into aspects of nano-materials, synthetic biology, advanced measurement science, and building efficiency. Over the life of the project, the amounts of materials used and corresponding wastes generated would be similar to those at the STM Campus in Centers 2700 (BioScience) and 5900 (Chemical & Materials Science). NREL personnel would handle the purchase, delivery, and disposal of materials used in this research setting and would be prepared to handle the additional materials and subsequent waste that this research collaboration produces. NREL would obtain an EPA hazardous waste generator identification number through the Colorado Department of Public Health and Environment (CDPHE) for this leased space. All hazardous wastes generated by NREL and CU personnel in NREL's leased space would be processed through the NREL EHS department and tracked under NREL's hazardous waste identification number. All NREL laboratories, Satellite Accumulation Areas (SAAs), and waste accumulation areas would be managed by NREL. Wastes would be profiled, segregated, and shipped offsite by a properly-permitted third party vendor.

NREL and CU personnel may be involved in the production of oil provided by plankton or algae that was genetically modified elsewhere or on the CU-Boulder campus. All NREL policies and procedures for genetically modified organisms (GMO) handling, use, and disposal would be followed. All biohazardous waste would be processed according to existing NREL hazardous material and waste management policies and procedures.

NREL personnel and their CU colleagues would be conducting research in nanoscale materials. Nano-materials would consist of very small quantities in bound, suspended, or dry form of carbon, although non-carbon nano-materials would also likely be used depending on the veracity of research developments in a particular research field. Engineering and administrative controls, programs, policies, and worker training would be implemented to minimize hazards to workers and the public. Specifically, special engineering controls (e.g. HEPA filtration), health monitoring, and special handling, use, and storage procedures would be implemented by NREL EHS. Nano-materials would be disposed in a manner consistent with the requirements for RCRA hazardous wastes under the direction of NREL EHS.

No radioisotope work is currently being proposed within the NREL leased space.

The proposed research and development activities at this facility would be very similar to current activities being conducted at the NREL STM campus. All tasks and activities associated with this research, including those conducted by CU-Boulder faculty, would comply with the existing NREL policies and procedures on laboratory safety and

hazardous materials, and materials would be managed in accordance with federal, state, and local environmental regulations. Chemical management systems and procedures would be in place to assure proper labeling, effective tracking, safe handling and appropriate use. Research procedures would be in place to assure all potential hazards are identified, assessed and addressed in a research plan. The proposed activities would not present any health and safety risks that are not covered by these existing NREL laboratory safety and hazardous materials policies. All required EHS permits, notifications, reporting, etc. would be the responsibility of NREL with the exception of the existing campus-wide industrial wastewater permit. The proposed NREL lease space would be supported by existing NREL EHS staff in addition to a part-time to full-time EHS Point-of-Contact domiciled at the lease space. Lab and building safety controls and equipment would vary depending upon the area of activities. These would include fume hoods with occupancy sensors, low-flow alarms, and variable speed drives; digital controls and automatic shut-down features; temperature monitoring; fire suppression systems; eyewash and safety shower stations; secondary containment; hazardous materials enclosures; and carbon monoxide sensors. All chemicals would be handled with proper PPE, which at a minimum would require safety glasses, a lab coat, and appropriate hand protection. Hazardous materials are stored in approved cabinets and handled in ventilated enclosures or hoods.

NREL would periodically provide and update EHS information and reports to CU-Boulder, as well as allow CU-Boulder to observe NREL EHS processes, inspections, Readiness Verifications, etc. NREL would conform to CU-Boulder's security requirements, alarms, and evacuation procedures. Emergency response would be provided by Boulder Police and Boulder Fire & Ambulance.

This proposed project would result in negligible impacts to traffic with less than 50 NREL employees and 24 CU-Boulder personnel involved in this proposed project over the ten year lease period. Traffic impacts of the build out of CU-Boulder's East Campus were included in CU-Boulder's Master Plan. No visual impacts are anticipated by NREL's activities within their lease space.

NEPA DETERMINATION

Based on review of the project information and the above analysis, DOE has determined this proposed project would not have a significant individual or cumulative impact to human health and/or environment. DOE has determined the proposed project is consistent with the actions contained in DOE categorical exclusions A9 "information gathering, analysis, and dissemination," A11 "technical advice and assistance to organizations," B3.6 "small-scale research and development, laboratory operations, and pilot projects," B3.15 "small-scale indoor research and development projects using nanoscale materials," and is categorically excluded from further NEPA review.

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 :

EF2a prepared by Rob Smith on 03/19/2014.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____  Date: 3/20/2014
NEPA Compliance Officer

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: _____ Date: _____
Field Office Manager

Based on my review I concur with the determination of the NCO:
 Proposed action falls within an E.O. 13526 category and therefore requires Field Office Manager's review and determination.
 Proposed action falls within a categorical exclusion but involves a high profile or controversial issue that warrants Field Office Manager's attention.

DOE requests the Field Office Manager review for the following reason:
 Field Office Manager review required.

COGATIME (OR THIS MEMORANDUM EXISTENCES A RECORD OF THIS DECISION)
DOE has determined that the proposed project would not have a significant impact on human health or the environment. DOE has determined the proposed project is consistent with the actions outlined in DOE categorical exclusion 40. Memorandum gathering analysis and assessment. All technical advice and assessment is organized per 10 CFR 430.22 (a) (1) (i) and (ii) and development projects involving hazardous materials, and is categorically excluded from further NEPA review.

DOE has reviewed the proposed project and determined that the proposed project would not have a significant impact on human health or the environment. DOE has determined the proposed project is consistent with the actions outlined in DOE categorical exclusion 40. Memorandum gathering analysis and assessment. All technical advice and assessment is organized per 10 CFR 430.22 (a) (1) (i) and (ii) and development projects involving hazardous materials, and is categorically excluded from further NEPA review.

DOE has reviewed the proposed project and determined that the proposed project would not have a significant impact on human health or the environment. DOE has determined the proposed project is consistent with the actions outlined in DOE categorical exclusion 40. Memorandum gathering analysis and assessment. All technical advice and assessment is organized per 10 CFR 430.22 (a) (1) (i) and (ii) and development projects involving hazardous materials, and is categorically excluded from further NEPA review.

DOE has reviewed the proposed project and determined that the proposed project would not have a significant impact on human health or the environment. DOE has determined the proposed project is consistent with the actions outlined in DOE categorical exclusion 40. Memorandum gathering analysis and assessment. All technical advice and assessment is organized per 10 CFR 430.22 (a) (1) (i) and (ii) and development projects involving hazardous materials, and is categorically excluded from further NEPA review.