

DOE-ID-NEPA CX DETERMINATION

Idaho National Laboratory

SECTION A. Project Title: Energy Systems Laboratory Process Demonstration Unit Biomass Dryer Exhaust Stack Installation

SECTION B. Project Description:

The proposed action is needed to allow operation of the Process Demonstration Unit (PDU) at the Energy Systems Laboratory (ESL, Idaho Falls [IF]-685). Bioenergy research and development (R&D) activities/operations that take place at the ESL have been captured in environmental checklist INL-10-003 (OA 8). Environmental impacts associated with operation of the PDU were evaluated in environmental checklist INL-10-050 R1 (OA 8) "Process Demonstration Unit." The environmental impacts associated with moving the PDU from the North Boulevard facility to the ESL were analyzed in "Addendum to PDU EC, INL-10-050 R1 (OA 8)."

The proposed action would install an exhaust stack at ESL from the existing PDU dryer output and run a new gas line to the dryer regulator. The exhaust stack would be a 24 inch diameter stack that would extend 10 feet above the ESL roof. The stack penetration would be sealed with flashing and a sealant. The project would also tap into a three inch natural gas line located in room E-100 and route a new line into room E-102 terminating the line at the PDU dryer regulator. The capacity of the dryer is 10 MMBTU/hr and the supply pressure is 10 psig.

This environmental checklist covers the installation of the stack and the natural gas line.

Estimated Start Date: April, 2014

Approximate Cost: \$30,000

SECTION C. Environmental Aspects or Potential Sources of Impact:

Air Emissions: Mobile sources such as generators, welders, and compressors may be used temporarily (less than six months) by subcontractors at the construction site. These sources will be required to meet Idaho Administrative Procedures Act (IDAPA) 58.01.01.625 visible emission opacity requirements.

Fugitive dust may be generated while constructing the concrete pad outside of IF-627. All reasonable precautions would be taken to control fugitive dust. If dust control methods are required, the subcontractor would document the method used and frequency of application in their daily logbooks.

Air emissions from current PDU activities that would discharge to the new stack are included in existing Air Permit Applicability Determination (APAD) INL-12-010 and APAD INL10-005.

Generating and Managing Waste: Typical construction debris waste such as wood, wire, scrap metal piping, packaging material, resource conservation and recovery act (RCRA) empty chemical containers, etc., would be generated during the project. Hazardous waste is not anticipated, however there is a potential for generating hazardous waste from adhesives used to seal the roof. All waste would be characterized and dispositioned at the direction of Waste Generator Services.

Releasing Contaminants: Typical Construction chemicals such as fuels, adhesives, lubricants, etc., would be used on the project. The Subcontractor would submit all chemicals and associated material safety data sheets (MSDS's) in the vendor data system for approval. The Construction Chemical Coordinator would track these chemicals in the INL Comply Plus Chemical Management System. Chemical use has a potential for small amounts of air emission and spills. Any spills that occur from these chemicals would be reported to the Spill Notification Team and would be cleaned up by the subcontractor.

Using, Reusing, and Conserving Natural Resources: All applicable waste would be diverted from disposal in the landfill when possible. Project personnel would use every opportunity to recycle, reuse, and recover materials and divert waste from the landfill when possible. The project would practice sustainable acquisition, as appropriate and practicable, by procuring construction materials that are energy efficient, water efficient, are bio-based in content, environmentally preferable, non-ozone depleting, have recycled content, or are non-toxic or less-toxic alternatives.

SECTION D. Determine the Recommended Level of Environmental Review (or Documentation) and Reference(s): Identify the applicable categorical exclusion from 10 CFR 1021, Appendix B, give the appropriate justification, and the approval date.

For Categorical Exclusions (CXs) the proposed action must not: 1) threaten a violation of applicable statutory, regulatory, or permit requirements for environmental, 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 or facilities; 3) disturb hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products that pre-exist in the environment such that there would be uncontrolled or unpermitted releases; 4) have the potential to cause significant impacts on environmentally sensitive resources (see 10 CFR 1021). In addition, no extraordinary circumstances related to the proposal exist which would affect the significance of the action, and the action is not "connected" nor "related" (40 CFR 1508.25(a)(1) and (2), respectively) to other actions with potentially or cumulatively significant impacts.

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References: 10 CFR 1021, Appendix B to Subpart D item B1.31 "Installation or relocation of machinery and equipment."

Justification: The proposed action is consistent with 10 CFR 1021, Appendix B to Subpart D, item B1.31 categorical exclusion, "Installation or relocation and operation of machinery and equipment (including, but not limited to, laboratory equipment, electronic hardware, manufacturing machinery, maintenance equipment, and health and safety equipment), provided that uses of the installed or relocated items are consistent with the general missions of the receiving structure. Covered actions include modifications to an existing building, within or contiguous to a previously disturbed or developed area, that are necessary for equipment installation and relocation. Such modifications would not appreciably increase the footprint or height of the existing building or have the potential to cause significant changes to the type and magnitude of environmental impacts."

Is the project funded by the American Recovery and Reinvestment Act of 2009 (Recovery Act) Yes No

Approved by Jack Depperschmidt, DOE-ID NEPA Compliance Officer on: 4/30/2014