

DOE-ID NEPA CX DETERMINATION

Idaho National Laboratory

SECTION A. Project Title: CF-608 (MSSL), Customer Furnished Equipment Evaluation and Testing

SECTION B. Project Description and Purpose:

The National and Homeland Security (N&HS) Cybercore project designs, develops, fabricates, assembles, and tests Commercial Off The Shelf (COTS) Industrial Control System (ICS) equipment and prototype electronic equipment, structures or equipment interfaces for use in ICS research projects at buildings IF-682 (UB-3), IF-684 (UB-4), the Materials Science and Support Laboratory (MSSL, building CF-608), IF-691 (Cybercore Integration Center) and other ICS mission support research areas. The project needs to modify the MSSL to support upcoming work.

The proposed action relocates electrical equipment and outlets, work benches, cabinets, and equipment and removes a 14-foot sheetrock partition wall. In addition, the project requires installing a 50 Hz 220 - 230 volt European power for customer supplied equipment. Depending on customer's requirements, the project may install a vehicle exhaust system to remove vehicle (diesel) exhaust from the building and a curtain system to block the view of non-project personnel.

Project activities include using hand tools, ladders, carts, computers, various electronic equipment and power supplies. The project performs routine equipment servicing and maintenance (i.e., fueling, oil, coolant, lubrication, calibrations, etc.) as needed. Work activities include general electronics activities such as general electronics engineering/design and using test and measurement instrumentation for ICS project support. The project also fabricates, assembles, modifies, troubleshoots, maintains, operates, and repairs electronic devices and ICS. These activities require the manually manipulating components and soldering, using chemicals for cleaning electronic components, and operating powered and nonpowered hand tools. Non-powered hand tools include hand-operated wrenches, screwdrivers, pliers, hack saws, and similar tools. Powered hand tools include battery powered drills with various attachments, battery powered hacksaws, and AC powered Dremel tools, soldering irons, and heat guns. Personnel use a multimeter tool to check voltage, fuses, and other sub-components.

Laboratory work includes installing consumer grade off-the-shelf electronic equipment in equipment racks; plugging the units into a standard, single power source, 120V AC receptacle, 208V AC receptacle, 220V AC receptacle, 480 V AC Metric receptacles (only), or <50V DC power supply, and installing communication cables to the equipment. Personnel perform soldering at stations that have a portable fan and filter systems in place and incidental soldering (less than 5 minutes) throughout the laboratory.

SECTION C. Environmental Aspects or Potential Sources of Impact:

Air Emissions

Project activities have the potential to generate fugitive dust. There will also be exhaust from the diesel vehicle that will be routed outside.

Generating and Managing Waste

The proposed action will generate industrial waste such as scrap metal/wire, wood, packaging material, etc. Hazardous waste from typical construction activities could also be generated.

Releasing Contaminants

Chemicals will be used and will be submitted to chemical inventory lists with associated Safety Data Sheets (SDSs) for approval prior to use. The Facility Chemical Coordinator will enter these chemicals into the INL Chemical Management Database. All chemicals will be managed in accordance with laboratory procedures. When dispositioning surplus chemicals, project personnel must contact the facility Chemical Coordinator for disposition instructions.

Although not anticipated, there is a potential for spills when using chemicals or fueling equipment. In the event of a spill, notify facility Environmental Staff. If the Environmental Staff cannot be contacted, report the release to the Spill Notification Team (208-241-6400). Clean up the spill and turn over spill cleanup materials to WGS.

Using, Reusing, and Conserving Natural Resources

All applicable waste would be diverted from disposal in the landfill when possible. Program personnel would use every opportunity to recycle, reuse, and recover materials and divert waste from the landfill when possible. The program 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, nonozone depleting, have recycled content, and are non-toxic or less-toxic alternatives.

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

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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 Department of Energy (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 Comprehensive Environmental Response, Compensation, and Liability Act (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 that would affect the significance of the action. In addition, the action is not "connected" to other action actions (40 CFR 1508.25(a)(1) and is not related to other actions with individually insignificant but cumulatively significant impacts (40 CFR 1608.27(b)(7)).

References: 10 CFR 1021, Appendix B to Subpart D, items B1.24 "Property transfers" and B3.6 "Small-scale research and development, laboratory operations, and pilot projects"

Justification: The proposed R&D activities are consistent with CX B1.24 "Transfer, lease, disposition, or acquisition of interests in personal property (including, but not limited to, equipment and materials) or real property (including, but not limited to, permanent structures and land), provided that under reasonably foreseeable uses (1) there would be no potential for release of substances at a level, or in a form, that could pose a threat to public health or the environment and (2) the covered actions would not have the potential to cause a significant change in impacts from before the transfer, lease, disposition, or acquisition of interests;" and

B3.6 "Siting, construction, modification, operation, and decommissioning of facilities for small-scale research and development projects; conventional laboratory operations (such as preparation of chemical standards and sample analysis); 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 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."

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

Approved by Jason Sturm, DOE-ID NEPA Compliance Officer on: 02/20/2020