

DOE-ID NEPA CX DETERMINATION

Idaho National Laboratory

SECTION A. Project Title: ESL Power Upgrade for D100 Laboratory High Bay

SECTION B. Project Description and Purpose:

The proposed action upgrades power to meet for experiment usage at the Energy Systems Laboratory (ESL). The proposal adds 1.5 megawatts of electrical power capacity to the D100 Laboratory High Bay. The scope includes upgrading a utility transformer outside the building as well as 480-volt (V) distribution equipment inside the building. Idaho Falls Power will install a transformer supplying the additional capacity, distributed to two new Integrated Power Centers (IPCs) in the D100 Laboratory High Bay. IPC size meets future needs in the D100 Laboratory High Bay without overloading the feeder conductors.

The project uses the main switchboard 685-MSB-05, in electrical room E107, to distribute 480V power to the D100 Laboratory High Bay and routes the raceway and conductors from 685-MSB-05 to the two new IPCs in the High Bay. Two breakers (100 kA short circuit rating) in the 685-MSB-05 switchboard feed the IPCs in the D100 Laboratory High Bay. Figure 1 displays proposed modifications.

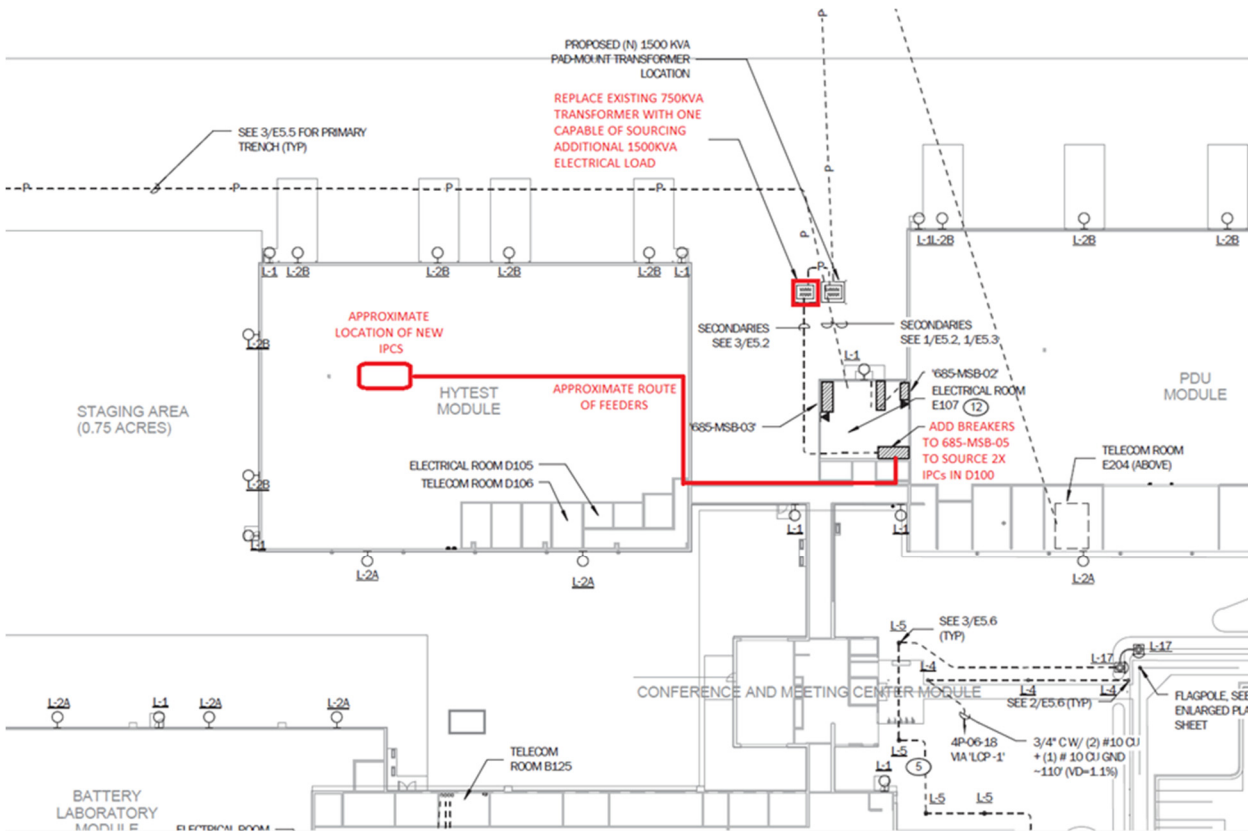


Figure 1: Required Modifications for the ESL Power Upgrade.

SECTION C. Environmental Aspects or Potential Sources of Impact:

Air Emissions

Project activities have the potential to generate fugitive emissions.

Generating and Managing Waste

The proposed action will generate industrial waste such as concrete, scrap metal/wire, 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.

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Although not anticipated, there is a potential for spills when using chemicals. In the event of a spill, notify facility PEL. If the PEL 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, non-ozone 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.

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, B4.6 "Additions and modifications to transmission facilities"

Justification: Activities are consistent with 10 CFR 1021, Appendix B, B4.6, "Additions or modifications to electric power transmission facilities within a previously disturbed or developed facility area. Covered activities include, but are not limited to, switchyard rock grounding upgrades, secondary containment projects, paving projects, seismic upgrading, tower modifications, load shaping projects (such as the installation and use of flywheels and battery arrays), changing insulators, and replacement of poles, circuit breakers, conductors, transformers, and crossarms."

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: 4/15/2019