

DOE-ID NEPA CX DETERMINATION

Idaho National Laboratory

SECTION A. Project Title: TAN-681 High Performance Computing Center

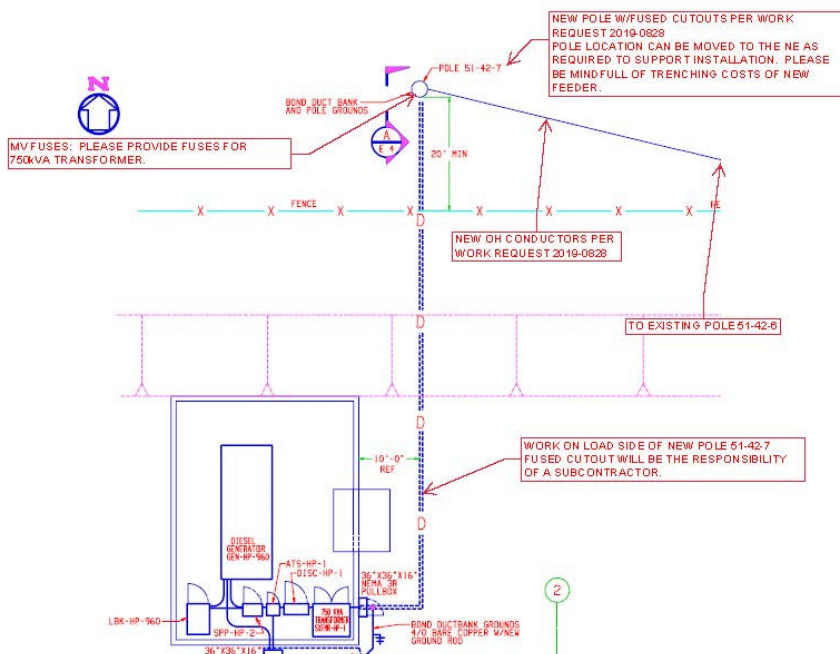
SECTION B. Project Description and Purpose:

The purpose of the proposed action is to address modeling and networking needs to support mission critical work at the Specific Manufacturing Capability (SMC) by establishing a state-of-the art High Performance Computing (HPC) Center. The SMC HPC Center will occupy about 1,600 ft² in building Test Area North (TAN)-681 in a former storage area. The proposed HPC Center requires an uninterruptable power supply (UPS) with a standby generator to improve reliability and reduce system outages from power spikes, planned maintenance, and other events. The system also requires an independent power feed and cooling system, 300 KVA power, dry agent fire protection system, and a raised floor with leak detection. A 10-ton air conditioning unit will be purchased to supply cooling to electronic equipment.

The diesel generator will be operated, and facility loads transferred to it, for 30 minutes each month for maintenance. Operation in non-emergency situations is limited to 50 hours per calendar year, and the 50 hours of operation in non-emergency situations count toward the 100 hours per calendar year for maintenance and testing. Records of non-emergency operations must be maintained separately from maintenance and testing operating records. Other than that, the generator would be used to provide emergency power during planned and unplanned outages to the facility.

Power installation requires a new pole, outside of the SMC security perimeter fence. Power installation requires trenching. Figure 1 depicts proposed pole installation and associated tasks.

Figure 1. Power pole installation for SMC HPC Center



A new chiller system maintains room temperature and ties into the SMC water system. The system requires 100 tons of chilled cooling water.

The following lists modifications included in project scope:

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- Install raised computer floor and leak detection system underneath
- Install new doors and seal old doors
- Install new lights
- Install dry agent fire suppression system
- Install pre-action fire suppression system tying into plant potable water
- Install chilled water cooling system to supply chilled water to computer doors
- Install computer room air conditioning unit and tie to potable water
- Install dampers and modify interior walls to meet 1-hour fire protection requirements
- Install standby generator
- Install UPS
- Install automatic transfer switch
- Install load bank.

Proposed facility modifications do not require sewer hookups.

SECTION C. Environmental Aspects or Potential Sources of Impact:

Air Emissions

Fugitive dust and emissions from mobile equipment may be generated during excavation activities.

The non-road diesel generator is certified to level 4i emission controls and may be used for emergency power.

Disturbing Cultural or Biological Resources

Soil disturbance outside previously disturbed facility fenced areas and improved grounds has the potential to disturb Cultural or Biological resources.

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. There is a potential generate asbestos waste.

Releasing Contaminants

Typical construction chemicals such as fuels, lubricants, adhesives, etc. will be used. Although not anticipated, there is a potential for spills when using chemicals or fueling equipment. 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 to Subpart D, items B1.15 "Support buildings"

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Justification: Project activities described in this Environmental Checklist (EC) are consistent with 10 CFR 1021, Appendix B to Subpart D, items B1.15 "Siting, construction or modification, and operation of support buildings and support structures (including, but not limited to, trailers and prefabricated and modular buildings) within or contiguous to an already developed area (where active utilities and currently used roads are readily accessible). Covered support buildings and structures include, but are not limited to, those for office purposes; parking; cafeteria services; education and training; visitor reception; computer and data processing services; health services or recreation activities; routine maintenance activities; storage of supplies and equipment for administrative services and routine maintenance activities; security (such as security posts); fire protection; small-scale fabrication (such as machine shop activities), assembly, and testing of non-nuclear equipment or components; and similar support purposes, but exclude facilities for nuclear weapons activities and waste storage activities covered in B1.10, B1.29, B1.35, B2.6, B6.2, B6.5, B6.6, and B6.10 of this appendix."

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: 2/25/2019