

SECTION A. Project Title: INTEC – Upgrade of the Utility Control System

SECTION B. Project Description

Design, procurement, and installation of an upgrade to the utility control system (UCS) for the Idaho Nuclear Technology and Engineering Center (INTEC). The existing system has long passed its useful life and is regularly experiencing equipment malfunction and failure. The existing system is connected via a combination of hard-wire copper and fiber connections. This infrastructure is proving increasingly unreliable and very problematic to maintain. Approximately 21 buildings will be included in the system modification and upgrade of UCS equipment. This work will be performed by a subcontractor.

Specific actions:

- Design a code compliant Ethernet based Utility Control System (UCS).
- Procure UCS replacement components including programmable logic controller, in/out, Human-Machine Interface System, engineering work station and fiber optics.
- Program/configure the UCS equipment including a simulation acceptance test performed at the subcontractor's facility.
- Prepare cutover plan to minimize major outages in order to minimize loss of production in INTEC facilities.
- Prepare acceptance test procedures including individual Load Center, Substations and overall system.
- Support of software testing of the UCS and Generator Monitoring System.
- Provide subcontractor oversight and commissioning of the UCS System.
- Complete as-built drawings.
- Updated UCS software including application code, HMI configuration and development software.

SECTION C. Environmental Aspects / Potential Sources of Impact

2. Asbestos Emissions – Limited quantities of non-friable and friable asbestos-containing material (ACM) may be generated during the building modifications. Submittal and approval of internal notification is required prior to removal of ACM. Non-radioactive friable and non-friable ACM waste will be disposed of at the INL Landfill Complex as appropriate and the radioactive friable or non-friable ACM waste will be disposed of at an approved offsite facility.

4. Chemical Use and Storage – The project activities will involve chemicals, such as adhesives, sealants, and paints. As applicable, project personnel will use non-hazardous chemical substitutes in place of hazardous chemicals as long as the non-hazardous substitutes meet the requirements/specifications of the project. Spill prevention/minimization measures will be used during storage and use of chemicals.

9. Waste Generation and Management - Industrial waste (nonhazardous and nonradioactive) will be generated as a result of the modifications. Examples of industrial waste include out-of-date electronic components and fiber optics, wiring, mounting brackets, conduit, packaging, etc. that are not deemed to be hazardous. This waste stream will be managed through Waste Generator Services and disposed of at the INL Landfill Complex.

Some of the impacted INTEC buildings are Hazardous Waste Management Act (HWMA)/Resource Conservation and Recovery Act (RCRA) permitted facilities. However, the nature of the minor modifications will not require modifications to the HWMA/RCRA permit.

10. Material or Waste Handling and Trans. – As applicable, hazardous waste determinations will be performed on all generated waste to determine the appropriate management practices. Waste streams will be evaluated to determine if any

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of these materials can be recycled or reused and will be further evaluated to implement actions for minimizing waste generation.

12. Managing Property and Material - Equipment and materials will be recycled or reused when practical.

17. Work within areas Subject to Flooding – If the hypothetical 100-year flood event occurs while hazardous, mixed, and/or universal waste are generated or present in these buildings, then the potential exists for flood waters to contact and “wash out” the hazardous wastes. As discussed in 40 CFR 264.18(b), procedures need to be in effect which will cause the wastes to be removed safely, before flood waters can reach the facility, to a location where the wastes will not be vulnerable to flood waters.

SECTION D. Determine the 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.

Note: 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, including requirements of DOE orders; 2) require siting and construction or major expansion of waste storage, disposal, recovery, or treatment 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) adversely affect environmentally sensitive resources. 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.

References: B2.5, Safety and environmental improvements of a facility, replacement/upgrade of facility components

Justification: The maintenance and upgrade actions will ensure a functional utility control system to support INTEC operations. The environmental impacts associated with the actions are categorically excluded from further NEPA review

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 June 22, 2017.