

# DOE-ID NEPA CX DETERMINATION

**SECTION A. Project Title: Enhancement of Availability of The Ohio State University Research Reactor for Supporting Research and Education – The Ohio State University**

**SECTION B. Project Description**

The Ohio State University's Nuclear Reactor Laboratory (OSU-NRL) proposes to acquire custom-built replacements for some essential OSU Research Reactor (OSURR) control-room equipment that has been in continuous service for decades. The desired equipment is essential to the operation of the reactor and includes: 1. Six Custom NIM modules, which are required for the reactor protection system (RPS); 2. One custom LogN-Period Amplifier, necessary for monitoring reactor power and rate of change; and 3. One Victoreen 942A-200 Universal Digital Ratemeter (UDR), which is necessary for the effluent monitoring system. A failure of one of the requested pieces of equipment could result in the suspension of reactor operations for an extended period of time. Having new modules, with the old modules kept as spares, would decrease the chance of failure, and allow significantly faster recovery in the event of a failure. In this project, the OSU-NRL will contract with vendors who have the capability and interest to engage in the design, creation, and implementation of these pieces of equipment. The OSU-NRL was chosen to be a Nuclear Science User Facilities (NSUF) partner facility in 2017, and the OSU-NRL supports DOE through research interests in advanced reactor technologies and through the recruitment and preparation of high-quality students for the nuclear industry.

**SECTION C. Environmental Aspects / Potential Sources of Impact**

The university has procedures in place to handle any waste that will be generated through this project. The action would not create additional environmental impacts above those already occurring at the university.

**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: B2.2 Installation of, or improvements to, building and equipment instrumentation (including, but not limited to, remote control panels, remote monitoring capability, alarm and surveillance systems, control systems to provide automatic shutdown, fire detection and protection systems, water consumption monitors and flow control systems, announcement and emergency warning systems, criticality and radiation monitors and alarms, and safeguards and security equipment).

Justification: The activity consists of the acquisition of custom-made replacement reactor parts to ensure the reliability of reactor functioning.

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

Approved by Jason Anderson, DOE-ID NEPA Compliance Officer, on 07/26/2021.