

# DOE-ID NEPA CX DETERMINATION

## SECTION A. Project Title: NEUP Infrastructure Program: Minor Reactor Upgrades– University of Wisconsin

## SECTION B. Project Description

This project by the University of Wisconsin will:

- Upgrade the reactor pool water system with a reverse osmosis system and a capacitance continuous level measurement probe with an associated digital meter display
- Upgrade the reactor instrumentation and control systems with a multi-turn rotary absolute encoder along with associated digital readout device and connecting hardware and a digital recorder. LAN access will provide remote assessment capabilities of the facility.
- Upgrade the area radiation monitoring system and upgrade the swipe counter with an automatic low background alpha/beta counting system.
- Upgrade the emergency preparedness and assessment capabilities by installing an automatic transfer switch on the facilities main supply bus to connect the facility to the building backup generator in the event of a loss of alternating current.
- Replace the reactor experimental facility control system with a 24VDC programmable PLC that is capable of controlling 24VDC direct acting solenoid flow control valves. This will improve operational reliability by eliminating demineralizer resin fouling due to oil and to enhance precision timed irradiations.

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

The action consists of funding the purchase of equipment and instruments for an existing program. 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, announcement and emergency warning systems, criticality and radiation monitors and alarms, and safeguards and security equipment).

Justification: The activity consists of upgrading and replacing equipment.

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

Approved by Jack Depperschmidt, DOE-ID NEPA Compliance Officer on 11/28/2011