DOE-ID NEPA CX DETERMINATION

CX Posting No.: DOE-ID-16-083

SECTION A. Project Title: ISU AGN-201 Reactor Safety Channels Upgrade – Idaho State University

SECTION B. Project Description

This project is to replace the aging (and obsolete) detectors necessary for the operation of the AGN-201 research reactor at Idaho State University. The reactor is used by both faculty and students at ISU for the purposed of education, research and training. Currently, three antiquated BF3 filled radiation detectors serve the reactor safety channels. BF3 detectors are largely being discontinued due to the hazardous nature of the gas, which means it is no longer possible to buy replacements. Therefore, it is planned to replace the BF3 detectors with modern B-10 lined detectors.

SECTION C. Environmental Aspects / Potential Sources of Impact

Radioactive Waste Generation – Approximately 8 BF3 ionization chambers will be removed from the ISU AGN-201 facility. The chambers will be handled following all safety procedures and the Idaho State University Technical Safety Office (TSO) will dispose of the ionization chambers following all federal and state requirements.

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 (including, but not limited to, replacement and upgrade of facility components) that do not result in a significant change in the expected useful life, design capacity, or function of the facility and during which operations may be suspended and then resumed. Improvements include, but are not limited to, replacement/upgrade of control valves, in-core monitoring devices, facility air filtration systems, or substation transformers or capacitors; addition of structural bracing to meet earthquake standards and/or sustain high wind loading; and replacement of aboveground or belowground tanks and related piping, provided that there is no evidence of leakage, based on testing in accordance with applicable requirements (such as 40 CFR part 265, "Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities" and 40 CFR part 280, "Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks"). These actions do not include rebuilding or modifying substantial portions of a facility (such as replacing a reactor vessel).

Justification: The activity consists of replacement of radiation detectors to continue safe operation of the university's test reactor.

Approved by Jack Depperschmidt, DOE-ID NEPA Compliance Officer on 08/24/2016