



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

April 28, 2023

Dr. Mary Lou Dunzik-Gougar  
Reactor Administrator  
Idaho State University  
Pocatello, ID 83209

SUBJECT: IDAHO STATE UNIVERSITY - SUPPLEMENTAL INFORMATION NEEDED FOR ACCEPTANCE OF THE APPLICATION FOR A LICENSE AMENDMENT RE MODIFICATION TO REMOVE CHANNEL 2 AND CHANNEL 3 LOW POWER SCRAMS FOR THE RENEWED FACILITY LICENSE NO. R-110 (EPID: L-2023-NFA-0002)

Dear Dr. Dunzik-Gougar:

By letter dated March 13, 2023 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML23074A066, Idaho State University (ISU) submitted a license amendment request (LAR) for the ISU research reactor facility. The proposed LAR would remove low power scrams for nuclear safety Channels 2 and 3, replace channel 2 and 3 detectors, and modify the Technical Specifications Sections 3.2, Control and Safety Systems.

Consistent with Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.90, "Application for amendment of license, construction permit, or early site permit," an application to amend a license (including the technical specifications) must be filed with the Commission, as specified in 10 CFR 50.4, "Written communications." The application must fully describe the changes desired, and follow, as far as applicable, the form prescribed for the original application. Section 50.34, "Contents of applications; technical information," of 10 CFR addresses the content of technical information required and stipulates that the submittal address the design and operating characteristics, unusual or novel design features, and principal safety considerations. In addition to the requirements of 10 CFR 50.4, the LAR must be executed in a signed original document under oath or affirmation per 10 CFR 50.30(b), "Oath or affirmation."

The U.S. Nuclear Regulatory Commission (NRC) staff performed an acceptance review of the LAR and determined that the information described in the enclosure to this letter is needed to find the application acceptable and begin the detailed technical review. Accordingly, the NRC staff requests a supplement to the application to address the information described in the enclosure to this letter by May 19, 2023. If the supplement is not received by the agreed date, the application will not be accepted for review pursuant to 10 CFR 2.101, "Filing of application," and the NRC may cease its associated review activities. Any request for additional time to provide the supplement should include the reason for requesting additional time and a proposed date to provide the supplement to allow the NRC staff to make an informed decision on whether to grant the request.

Information included in the response that you consider sensitive or proprietary, and seek to have withheld from public disclosure, must be marked in accordance with 10 CFR 2.390, "Public inspections, exemptions, requests for withholding." Any information related to safeguards should be submitted in accordance with 10 CFR 73.21, "Protection of Safeguards Information: Performance Requirements."

The NRC staff discussed the enclosure and the time frame for providing a supplement with you on April 27, 2023. If you have any questions, please contact me at (301) 415-1404 or by electronic mail at [Xiaosong.yin@nrc.gov](mailto:Xiaosong.yin@nrc.gov).

Sincerely,

**Xiaosong Yin**

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Xiaosong Yin  
Date: 2023.04.28 11:13:07  
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Xiaosong Yin, Project Manager  
Non-Power Production and Utilization Facility  
Licensing Branch  
Division of Advanced Reactors and Non-Power  
Production and Utilization Facilities  
Office of Nuclear Reactor Regulation

Docket No. 50-284  
License No. R-110

Enclosure: As stated

OFFICE OF NUCLEAR REACTOR REGULATION  
SUPPLEMENTAL INFORMATION NEEDED FOR  
ACCEPTANCE OF A LICENSE AMENDMENT REQUEST  
  
IDAHO STATE UNIVERSITY  
  
LICENSE NO. R-110; DOCKET NO. 50-284

- 1) Provide information that demonstrates the new B-10 detector is equal to or exceeds the specifications of the existing detector. This could include manufacturer's part specification sheet of the specific detector procured for replacement or related information. Additionally, the LAR states that an experiment will be used to determine the low power response of the B-10 detector, however, the staff could not identify information supporting the method or process used to qualify the response of the new detector. Please provide information to justify that the experiment will be sufficient to qualify the low power response of the detector.
- 2) It is noted that an MHA analysis as well as other accident sequences have been included in the final safety analysis reports (FSAR) change pages included in the submittal. It is not clear to the staff if these updates were required because of the planned change to the B-10 detector or if they are separate from that change. If ISU intends on adding the MHA and these accident sequences to the FSAR please provide justification that they are adequate for the ISU facility and, if applicable, please discuss how they are applicable to the change to the B-10 detector.

Enclosure