

May 29, 2003

Dr. Jay F. Kunze  
Dean College of Engineering  
Idaho State University  
Box 8060  
Pocatello, ID 83209

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION IN RELATION TO RENEWAL  
OF FACILITY OPERATING LICENSE NO. R-110 (TAC MB6757)

Dear Dr. Kunze:

We are continuing our review of your application to renew Facility Operating License No. R-110 for the Idaho State University AGN-201M Research Reactor, which you submitted on November 21, 1995, as supplemented on January 31, 2003. As a result of our review of your Technical Specifications, and Emergency Plan we have identified areas where we require additional information. Please provide either responses or a schedule to respond to the enclosed Request for Additional Information within 30 days of the date of this letter. You must execute your response in a signed original under oath of affirmation according to 10 CFR 50.30(b). While waiting for receipt of the additional information, we will continue our review of other documents covered by your license renewal amendment request, and the preparation of NRC documents required to renew your license.

If you have any questions regarding this review, please contact either me at (301) 415-1631, or [deh3@nrc.gov](mailto:deh3@nrc.gov), or Paul Doyle at (301) 415-1058 or [pvd@nrc.gov](mailto:pvd@nrc.gov).

Sincerely,

*/RA/*

Daniel E. Hughes, Project Manager  
Research and Test Reactors Section  
Operating Reactor Improvements Program  
Division of Regulatory Improvement Programs  
Office of Nuclear Reactor Regulation

Docket No. 50-284

Enclosure: As stated

cc: w/enclosure: See next page

Idaho State University

Docket No. 50-284

cc:

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Test, Research and Training  
Reactor Newsletter  
202 Nuclear Sciences Center  
University of Florida  
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REQUEST FOR ADDITIONAL INFORMATION  
IDAHO STATE UNIVERSITY AGN-201M RESEARCH REACTOR  
DOCKET NO. 50-284

- I. **Technical Specifications** In general, the NRC found the revised Technical Specifications submitted by letter dated January 31, 2003, to be well written. However, the reviewer has identified issues requiring clarification.
- A. The revised Technical Specifications included changes which were not accompanied by justification. Phone conversations with John Bennion of your staff assured the reviewer that these changes were based on bringing the Technical Specifications in line with the latest guidance associated with Research Reactor licensing. The NRC lauds the effort to bring the Technical Specifications up to date, but requests justification for the following changes:
1. The Limiting Safety System Setting for Nuclear Safety Channels 2 and 3 was changed from 10 watts to 6 watts. The NRC realizes that this is a change in the conservative direction.
  2. The definition for scram time was changed from a measurement of the time for the rod to eject out of the core, to a measurement of the time from the onset of a scram signal to the time that the rod is fully ejected from the core. Although the time limit for this has been increased, the NRC realizes that the overall change to this requirement is actually conservative, in that it also measures degradation of the scram circuitry, in addition to the measurement of the time for the rods to be ejected.
  3. The  $K_{\text{eff}}$  for stored spent fuel was changed from 0.8 to 0.9.
- B. In addition, the NRC reviewer noted that several paragraphs in Section 6 of the Technical Specifications refer to "an unreviewed safety question." This terminology is no longer part of 10 CFR 50.59. Please replace "unreviewed safety question(s)" with words relating to meeting the criteria contained in 10 CFR 50.59.(c)(2)(i) through (viii).
- II. **Emergency Plan** Once again, the Emergency Plan has been upgraded to incorporate latest NRC and industry guidelines, and once again the upgrade was generally well written. Please submit additional information to clarify the following issues:
- A. § 7.3.2 Evacuation Procedure
1. As a response to an emergency requiring an evacuation in § 7.3.1(a)(i) the licensed Reactor Operator is directed to sound the fire alarm either on the east wall near the entrance to the Reactor Laboratory or one of the additional fire-alarm pull stations located in the main hallway of the basement level of the Lillibridge Engineering Laboratory near the north and south stairwells. This is further emphasized by the Evacuation Procedure, C.6 within Attachment C to the Emergency Plan, which in step 5, directs the Reactor Operator to initiate building evacuation by tripping one of the building fire alarms.

2. § 7.3.2(b) has personnel gather at the “Hold Station” in the Southeast corner of the Machine Shop (Room 126 within the Lillibridge Engineering Building).

Figure A.3, shows the Machine shop as Room 126 within the Lillibridge Engineering Laboratory. Please clarify whether you train people to leave the building, or to proceed to the holding area in the machine shop, upon hearing a fire alarm in the Lillibridge Engineering Laboratory. In addition, the first sentence of § 8.1 refers to Figure A.2. This reference should refer to Figure A.3.

- III. **Requalification Program** In your letter dated January 30, 2003, responding to the Request for Additional Information, you committed to changing your Operator Requalification Program by June 30, 2003. Please submit the updated requalification plan as soon as possible. Please do not hold up your response to this letter to include the updated Operator Requalification Program.