

January 28, 2004

Mr. Ralph Butler, Director
Research Reactor Center
University of Missouri-Columbia
Research Park
Columbia, MO 65211

SUBJECT: UNIVERSITY OF MISSOURI AT COLUMBIA — REQUEST FOR ADDITIONAL
INFORMATION RE: LICENSE AMENDMENT ON DEFINITIONS, LIMITING
CONDITIONS FOR OPERATIONS AND REPORTING REQUIREMENTS
(TAC NO. MB7181)

Dear Mr. Butler:

We are continuing our review of your amendment request for Amended Facility License No. R-103 for the University of Missouri - Columbia Research Reactor which you submitted on December 16, 2002. During our review of your amendment request, questions have arisen for which we require additional information and clarification. Please provide responses to the enclosed request for additional information within 90 days of the date of this letter. In accordance with 10 CFR 50.30(b), your response must be executed in a signed original under oath or affirmation. Following receipt of the additional information, we will continue our evaluation of your amendment request.

If you have any questions regarding this review, please contact me at 301-415-1127.

Sincerely,

/RA/

Alexander Adams, Jr., Senior Project Manager
Research and Test Reactors Section
New, Research and Test Reactors Program
Division of Regulatory Improvement Programs
Office of Nuclear Reactor Regulation

Docket No. 50-186

Enclosure: As stated

cc w/enclosure: Please see next page

University of Missouri-Columbia

Docket No. 50-186

cc:

University of Missouri
Associate Director
Research Reactor Facility
Columbia, MO 65201

A-95 Coordinator
Division of Planning
Office of Administration
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Mr. Ron Kucera, Director
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and Special Projects
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P.O. Box 176
Jefferson City, MO 65102

Mr. Tim Daniel
Homeland Security
Suite 760
P.O. Box 809
Jefferson City, MO 65102

Test, Research, and Training
Reactor Newsletter
University of Florida
202 Nuclear Sciences Center
Gainesville, FL 32611

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TEMPLATE #: NRR-088

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REQUEST FOR ADDITIONAL INFORMATION
UNIVERSITY OF MISSOURI RESEARCH REACTOR
DOCKET NO. 50-186

1. In your application for LCO action requirements the statement is made that the purpose of the action requirement is to allow the reactor to be operated for a brief period of time “while actions are being taken to place the reactor in a safe shutdown condition.” However the evaluation section of your application states that the purpose of the brief period of time is “to allow restoration of an inoperable system or component to operable status, to allow restoration of parameters within specified limits, or to place the reactor in a safe shutdown mode.” Please address this inconsistency in your application.
2. You state in your application that the specified time limits of the action requirements are applicable from the point in time it is identified that an LCO is not met. For each of the LCOs that you have proposed action requirements, what is the maximum time that the component could be inoperable before the component failure is identified? For components where the component failure is not immediately identified by the operator, what is the safety significance of having the component inoperable for the stated period of time without identification? Should these failures be reportable to NRC?
3. Most of your proposed action statements state that the purpose of the action statement is to provide time for prompt remedial action. However, your proposed TS 3.10 does not contain the wording limitation about prompt remedial action. Please clarify the intent of the action statements for proposed TS 3.10.
4. In your proposed changes to the definition of abnormal occurrences you changed the introduction of the definition from “An abnormal occurrence is any of the following” to “An abnormal occurrence is any of the following which occurs during reactor operation.” The limitation of an abnormal occurrence to only during reactor operation is not consistent with ANS 15.1 section 6.6.2. For example, the NRC would want significant fuel cladding degradation to be reported, no matter when the problem occurs. Please justify your proposed TS.
5. Your proposed changes to TS 1.1.b. narrows abnormal occurrences from all TSs in your current TSs to LCOs established in section 3.0 in your proposed TSs. Please describe how records of violations, if they should occur, of surveillance requirements, design features and administrative controls that are not abnormal occurrences or reportable for other reasons, will be maintained and how NRC will be made aware of these violations.
6. Your proposed changes to TS 6.1.h. differ in some aspects from ANS-15.1. Your proposed TS 6.1.h.(1) does not contain the requirement given in ANS-15.1 section 6.6.1(2) to promptly report safety limits violations to management. Your proposed TSs 6.1.h.(2) and 6.1.h.(3) do not contain the requirement given in ANS-15.1 section 6.6.2(2) to promptly report releases of radiation above allowed limits and reportable occurrences to management. Your proposed TS 6.1.h.(3) does not contain the action contained in ANS-15.1 section 6.6.1(1) that reactor conditions shall be returned to normal or the reactor shutdown. Please address these differences by amending your proposed TSs to be consistent with ANS-15.1 or provide justification for the differences. Your

proposed TS 6.1.h. has initial notifications going to the NRC Operations Center. Please note that 10 CFR 50.36(7)(ii) also requires notification to the Administrator of the appropriate NRC Regional Office.

7. Please review your proposed replacement TS pages for changes not discussed in your amendment application in addition to those noted below. The following areas have text that is different between your replacement TS pages and your current TSs but have not been discussed in your application:

TS 3.3, page 1. TS Heading "Safety System or Measuring Channel" says "Safety System of Measuring Channel" in your replacement page.

TS 3.3, page 2. Pool Coolant Flow contains the limits for the 50% capacity heat exchanger leg. This has been eliminated in your replacement page. This change has been marked on your replacement page but not discussed and justified in your application.

TS 3.3, page 3. Footnote 1 in the TS states "corresponding to the flow value in the table." while the replacement page states "corresponding to the flow valve in the table."

TS 3.4, page 3, Regulating Blade Position. In the TS the number required has footnote (2) in all three operating modes. Your proposed replacement page does not have footnote (2) for the number required in Mode I.

TS 6.1.h.(5)(a)(1). You added a ")" after the word characteristics.

Please address these changes and any other that you identify.

8. TS 6.1.c.(2) refers to an unreviewed safety question pursuant to 10 CFR 50.59. Changes to 10 CFR 50.59 have eliminated the term "unreviewed safety question." Please consider revising this TS to be consistent with the revised 10 CFR 50.59.