

July 10, 2009

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 RENEWAL (TAC NO. ME1580)

Dear Mr. Butler:

We are continuing our review of your renewal request for Amended Facility Operating License No. R-103 for the University of Missouri - Columbia Research Reactor which you submitted on August 31, 2006, as supplemented. During our review of your renewal request, questions have arisen for which we require additional information and clarification. Please provide responses to the enclosed request for additional information within 60 days of the date of this letter. In accordance with Title 10 of the *Code of Federal Regulations*, 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 renewal 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 Branch A
Division of Policy and Rulemaking
Office of Nuclear Reactor Regulation

Docket No. 50-186

Enclosure:
As stated

cc see next page

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OFFICE OF NUCLEAR REACTOR REGULATION

REQUEST FOR ADDITIONAL INFORMATION

REGARDING FINANCIAL QUALIFICATIONS FOR THE RENEWED LICENSE FOR

THE UNIVERSITY OF MISSOURI-COLUMBIA RESEARCH REACTOR

LICENSE NO. R-103; DOCKET NO. 50-186

As required by Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.33(f)(2), “[a]pplicants to renew or extend the term of an operating license for a nonpower reactor shall include the financial information that is required in an application for an initial license.” To comply with this requirement, please provide the following updated and supplemental information to the August 31, 2006, University of Missouri-Columbia (MU, the applicant) application (the application) for a renewed facility operating license for the University of Missouri-Columbia Research Reactor (MURR).

1. The U.S. Nuclear Regulatory Commission (NRC) staff will analyze the financial statements for the current year, which are required by 10 CFR 50.71(b), to determine if the applicant is financially qualified to operate the MURR. Since MU’s financial statements included with the application are out of date, please provide a copy of the latest financial statements for the NRC staff’s review.
2. Pursuant to 10 CFR 50.33(f)(2), “[t]he applicant shall submit estimates for total annual operating costs for each of the first five years of operations of the facility.” Since the information included in the application is now out of date, please provide the following additional information:
 - (a) Projected operating costs of the MURR for each of the years FY11 thru FY15 (the first five year period after the projected license renewal).
 - (b) MU’s source(s) of funding to cover the operating costs for the above fiscal years.
3. The application references a decommissioning cost estimate for the MURR that was developed using NUREG/CR-1756, Technology, Safety and Costs of Decommissioning Reference Research and Test Reactors. The application states that the decommissioning cost estimate was \$40 million in 2005 dollars, including safe storage (SAFSTOR) costs, and a 25 percent contingency factor. The NRC staff needs the following additional information to complete its review of the MURR decommissioning cost estimate:
 - (a) A current decommissioning cost estimate in 2010 dollars for the MURR to meet the NRC’s radiological release criteria for decommissioning the facility for unrestricted use, pursuant to 10 CFR 50.75(d)(2). Accordingly, describe the basis for how the cost estimate was developed (if NUREG/CR-1756 is still the basis for the decommissioning cost estimate, please so state).

- (b) A summary of total decommissioning costs by labor, waste disposal, other items (such as energy, equipment, and supplies) in current dollars, and a 25 percent contingency factor.
 - (c) Provide a more detailed breakout of the total and annual MURR SAFSTOR costs shown in Table 17-1 "Annual Cost During SAFSTOR" to current dollars as well as the supporting bases for the costs associated with the SAFSTOR option. Also, please provide a numerical example showing how the SAFSTOR costs will be escalated each year.
 - (d) Provide a numerical example showing how the 2010 cost estimate will be updated periodically in the future.
4. The application indicates that MU plans to use a statement of intent (SOI) as the method to provide decommissioning funding assurance, as provided for by 10 CFR 50.75(e)(1)(iv). Where the applicant intends to use a SOI, the NRC staff must find that the applicant "is a Federal, State, or local government licensee." To make this finding, the applicant must state that it is a State government organization and that the decommissioning funding obligations of the applicant are backed by the State government, and also provide corroborating documentation. Further, the applicant must provide documentation verifying that the signator of the SOI is authorized to execute said document that binds the University. This document may be a governing body resolution, management directives, or other form that provides an equivalent level of assurance. As the application does not include all of the above information, please submit the following:
- (a) An updated SOI which includes the current (2010 dollars) cost estimate for decommissioning, a statement that funds for decommissioning will be obtained when necessary, and the signator's oath or affirmation attesting to the information.
 - (b) Documentation that corroborates the statement in the application that MU is a State agency and a State of Missouri government licensee under 10 CFR 50.75(e)(2)(iv).
 - (c) A statement as to whether the decommissioning funding obligations for the MURR are backed by the State of Missouri government. The application must also present documentation that corroborates this statement. For example, the documentation may be a copy of or complete citation to a state statute that expressly provides that the obligations, or at least the decommissioning funding obligations, of the applicant are backed or supported by the full faith and credit of the State of Missouri, or an opinion of the applicant's General Counsel with citations to statutes, regulations, and/or case law that the obligations, or at least those with respect to the decommissioning funding of the applicant are obligations backed or supported by the full faith and credit of the State of Missouri.
 - (d) Documentation verifying that the signator of the SOI is authorized to execute such a document that binds the applicant financially. For example, provide a copy of MU's governing board or equivalent resolution that shows that the signator of the

SOI has been authorized by MU to bind MU financially, at least with respect to funding the decommissioning of the MURR, or provide a copy of an official MU delegation of authority showing that the signator of the SOI is authorized to bind MU financially, at least with respect to funding the decommissioning of the MURR.

University of Missouri-Columbia

Docket No. 50-186

cc:

University of Missouri
Associate Director
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