Mr. Ralph Butler, Executive Director University of Missouri-Columbia Research Reactor Center 1513 Research Park Drive Columbia, MO 65211

SUBJECT: UNIVERSITY OF MISSOURI AT COLUMBIA – REQUEST FOR ADDITIONAL

INFORMATION RE: FINANCIAL INFORMATION FOR RENEWAL OF FACILITY OPERATING LICENSE NO. R-103 FOR THE UNIVERSITY OF MISSOURI AT

COLUMBIA RESEARCH REACTOR (TAC NO. ME1580)

Dear Mr. Butler:

The U.S. Nuclear Regulatory Commission (NRC) is continuing its review of your application for the renewal of Facility Operating License No. R-103, dated August 31, 2006 (redacted versions of the application and supplement are available on the NRC's public web site at www.nrc.gov under Agencywide Documents Access and Management System Accession Nos.: ML062540114 - cover letter; ML092110573 - safety analysis report (SAR), Chapters 1-9; ML092110597 - SAR, Chapters 10-18), for the University of Missouri - Columbia Research Reactor, as supplemented.

During the course of our review, additional financial information is needed, as provided in the enclosed request. Provide responses to the enclosed request for additional information within 30 days of the date of this letter.

In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 50.30(b), "Oath or affirmation," you must execute your response in a signed original document under oath or affirmation. Your response must be submitted in accordance with 10 CFR 50.4, "Written communications." Information included in your response that is considered sensitive or proprietary, that you seek to have withheld from the public, must be marked in accordance with 10 CFR 2.390, "Public inspections, exemptions, requests for withholding." Any information related to security should be submitted in accordance with 10 CFR 73.21, "Protection of Safeguards Information: Performance Requirements." Following receipt of the additional information, we will continue our evaluation of your renewal request.

R. Butler - 2 -

If you need additional time to complete this request, or have any questions regarding this review, please contact me at (301) 415-0893, or by electronic mail at Geoffrey.Wertz@nrc.gov.

Sincerely,

/Alexander Adams for RA/

Geoffrey A. Wertz, Project Manager Research and Test Reactors Licensing Branch Division of Policy and Rulemaking Office of Nuclear Reactor Regulation

Docket No. 50-186 License No. R-103

Enclosure: As stated

cc: See next page

CC:

Les Foyto, Associate Director Reactor and Facilities Operations University of Missouri – Columbia Research Reactor Center 1513 Research Park Drive Columbia, MO 65211

Homeland Security Coordinator Missouri Office of Homeland Security P.O. Box 749 Jefferson City, MO 65102

Planner, Department of Health and Senior Services Section for Environmental Public Health P.O. Box 570 Jefferson City, MO 65102

Deputy Director for Policy Department of Natural Resources 1101 Riverside Drive Fourth Floor East Jefferson City, MO 65101

A-95 Coordinator
Division of Planning
Office of Administration
P.O. Box 809, State Capitol Building
Jefferson City, MO 65101

Test, Research, and Training Reactor Newsletter University of Florida 202 Nuclear Sciences Center Gainesville, FL 32611 R. Butler - 2 -

If you need additional time to complete this request, or have any questions regarding this review, please contact me at (301) 415-0893, or by electronic mail at Geoffrey.Wertz@nrc.gov.

Sincerely,

/Alexander Adams for RA/

Geoffrey A. Wertz, Project Manager Research and Test Reactors Licensing Branch Division of Policy and Rulemaking Office of Nuclear Reactor Regulation

NRR-106

Docket No. 50-186 License No. R-103

Enclosure: As stated

cc: See next page

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ADAMS Accession No.: ML16216A122: *concurrence via email

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NAME	GWertz	NParker	TBowers	MYoung	AAdams	(AAdams for) GWertz
DATE	8/3/2016	8/3/2016	8/23/2016	8/23/2016	8/24/2016	8/24/2016

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OFFICE OF NUCLEAR REACTOR REGULATION

REQUEST FOR ADDITIONAL INFORMATION REGARDING

THE FINANCIAL QUALIFICATIONS FOR THE RENEWED LICENSE FOR

THE UNIVERSITY OF MISSOURI-COLUMBIA RESEARCH REACTOR

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

Background:

In its license renewal application (LRA) for the University of Missouri-Columbia Research Reactor (MURR) dated August 31, 2006, the University of Missouri-Columbia (MU) provided information in the Safety Analysis Report (SAR), Chapter 15, "Financial Qualifications," Table 15-1, "Costs of Operating of MU Research Reactor: FY 05," to demonstrate that the MURR facility continues to satisfy the definition of a class 104 facility in 10 CFR 50.21(c). That regulation states, in relevant part, that a facility useful in the conduct of research and development activities "is not a facility of the type ... in [10 CFR] 50.22," which is a facility deemed to be for industrial or commercial purposes. Section 50.22 states, in part, "that in the case of a production or utilization facility which is useful in the conduct of research and development activities of the types specified in section 31 of the Act, such facility is deemed to be for industrial or commercial purposes if the facility is to be used so that more than 50 percent of the annual cost of owning and operating the facility is devoted to the production of materials, products, or energy for sale or commercial distribution, or to the sale of services, other than research and development or education or training."

Request for Additional Information:

The NRC staff requests that MU provide an update to the information provided in the LRA SAR, Chapter 15, "Financial Qualifications," Table 15-1, "Costs of Operation of MU Research Reactor FY:05," on page 15-2, or confirm the statement made in SAR Section 15.2, "Financial Ability to Operator a Non-Power Reactor," on page 15-1, that "the cost of conducting the [MURR's] commercial activities is less than 50% of the cost of owning and operating the facility."