

November 28, 2011

LICENSEE: University of Missouri – Columbia  
FACILITY: University of Missouri Research Reactor (MURR)  
SUBJECT: SUMMARY OF NOVEMBER 10, 2011, MEETING WITH THE UNIVERSITY OF MISSOURI – COLUMBIA, ON CONVERSION OF THE MISSOURI UNIVERSITY RESEARCH REACTOR FROM HIGH-ENRICHED URANIUM TO LOW-ENRICHED URANIUM FUEL

On November 10, 2011, a Category 1 public meeting was held between the U.S. Nuclear Regulatory Commission (NRC) staff and representatives of the University of Missouri – Columbia (the licensee) at NRC Headquarters, One White Flint North, 11555 Rockville Pike, Rockville, Maryland. All information pertaining to this meeting is available in the Agencywide Documents Access and Management System at Accession No. ML113180132.

In support of the goals of the U.S. Department of Energy Reduced Enrichment for Research and Test Reactors program to minimize the use of high-enriched uranium (HEU) fuel, the licensee is making plans to convert the Missouri University Research Reactor from the use of HEU fuel to low-enriched uranium (LEU) fuel. Conversion is governed by the regulations in Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.64. The conversion to LEU fuel results in a change in the neutron spectrum in the reactor core which reduces the thermal neutron flux in experimental facilities. To restore neutron flux levels, the licensee is considering raising the reactor power level from 10 MW(t) to 12 MW(t). In accordance with the definitions in 10 CFR 50.2, this would result in the reactor's designation changing from a research reactor to a testing facility. No other licensee that has converted or that is anticipated to convert faces this issue of a change in reactor designation. The licensee would prefer that the reactor continues to be a research reactor after conversion, consistent with its current activities.

The licensee is considering pursuing the option of requesting an exemption from the definition of testing facility in accordance with 10 CFR 50.12 to remain a research reactor after conversion. The definition of testing facility and the requirements of 10 CFR 50.12 were discussed focusing on the licensee's potential justification for requesting an exemption.

It was agreed that the licensee would provide NRC a letter stating their intent to pursue an exemption along with their reasoning for pursuing this option.

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One member of the public attended the meeting and another participated by phone. Public Meeting Feedback forms were not received. Please direct any inquiries to A. Adams at 301-415-1127 or [Alexander.Adams@nrc.gov](mailto:Alexander.Adams@nrc.gov).

**/RA/**

Alexander Adams, Jr., Senior Project Manager  
Research and Test Reactors Licensing Branch  
Division of Policy and Rulemaking  
Office of Nuclear Reactor Regulation

Docket 50-186

Enclosure:  
List of Attendees

One member of the public attended the meeting and another participated by phone. Public Meeting Feedback forms were not received. Please direct any inquiries to A. Adams at 301-415-1127 or [Alexander.Adams@nrc.gov](mailto:Alexander.Adams@nrc.gov).

**/RA/**

Alexander Adams, Jr., Senior Project Manager  
Research and Test Reactors Licensing Branch  
Division of Policy and Rulemaking  
Office of Nuclear Reactor Regulation

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List of Attendees

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RidsNrrDprPrtb AAdams, NRR GLappert, NRR

ADAMS Accession No.: PKG: ML113180132; Notice: ML112720632; Slides: ML113180004;  
Summary: ML113180135 NRC-001

Office	PRPB:PM	PRLB:LA	PRLB:BC	PRPB:PM
Name	AAdams	GLappert	JQuichocho	AAdams
Date	11/14/11	11/14/2011	11/21/11	11/28/11

**OFFICIAL RECORD COPY**

LIST OF ATTENDEES

MEETING BETWEEN NRC STAFF AND UNIVERSITY OF MISSOURI-COLUMBIA  
CONVERSION OF THE MURR FROM HIGH-ENRICHED URANIUM TO LOW-ENRICHED  
URANIUM FUEL

NOVEMBER 10, 2011

DOCKET 50-186

Nuclear Regulatory Commission

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A. Adams, NRR/DPR/PRLB  
X. Yin, NRR/DPR/PRLB  
S. Uttal, OGC  
B. Mizuno, OGC

University of Missouri

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L. Foyto  
J. C. McKibben  
T. Poindexter (outside counsel for licensee)  
L. Chandler (outside counsel for licensee)

Public

W. P. Moore, Beveridge & Diamond, P.C.  
J. Beetem, Missouri Department of Natural Resources

Enclosure

University of Missouri-Columbia

Docket No. 50-186

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