November 18, 2010

Mr. Robert J. Agasie
Reactor Director
Nuclear Reactor Laboratory
Room 130 Mechanical Engineering Building
1513 University Avenue
Madison, WI 53706-1572

SUBJECT: UNIVERSITY OF WISCONSIN - REQUEST FOR ADDITIONAL INFORMATION REGARDING THE LICENSE RENEWAL FOR THE UNIVERSITY OF WISCONSIN NUCLEAR REACTOR (TAC NO. ME1585)

Dear Mr. Agasie:

We are continuing our review of your application for renewal of Facility Operating License No. R-74, Docket No. 50-156 for the University of Wisconsin. The application was submitted on May 9, 2000, as supplemented by letters dated October 17, 2008; June 16, (two letters); July 8, and August 11, 2010.

During our review of the proposed technical specifications, questions have arisen for which we require additional information and clarification. Please provide a response to the enclosed request for additional information within 30 days of the date on this letter.

In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR), Section 50.30(b), 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 security, 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."

Following receipt of the requested information we will continue our evaluation of your application. If you have any questions regarding this review, please contact me at (301)415-0893.

Sincerely,

/RA/ AAdams for

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

Docket No. 50-156
License No. R-74

Enclosure: As stated
cc w/encl: See next page

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Reactor Director
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1513 University Avenue
Madison, WI 53706-1572

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/RA/ AAdams for
Geoffrey Wertz, Project Manager
Research and Test Reactors Projects Branch
Division of Policy and Rulemaking
Office of Nuclear Reactor Regulation

Docket No. 50-156
License No. R-74
Enclosure: As stated
cc w/encl: See next page

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ADAMS Accession No: ML103220149 NRR-088

OFFICE	PRLB: PM	PRLB: LA	PRLB: PM	PRLB: PM
NAME	GWertz	GLappert	JQuichocho	GWertz (AAdams for)
DATE	11/18/10	11/18/2010	11/18/10	11/18/10

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cc:

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Madison, Wisconsin 53703

Chairman, Public Service
Commission of Wisconsin
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P.O. Box 7854
Madison, WI 53707-7854

Manager
Radiation Protection Section
Division of Public Health
Dept of Health and Family Services
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Test, Research, and Training
Reactor Newsletter
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Eric C Woolstenhulme
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OFFICE OF NUCLEAR REACTOR REGULATION

REQUEST FOR ADDITIONAL INFORMATION

UNIVERSITY OF WISCONSIN

FACILITY OPERTING LICENSE NO. R-74

DOCKET NO. 50-156

The U. S. Nuclear Regulatory Commission (NRC) staff is continuing the review of your application for renewal of Facility Operating License No. R-74, dated May 9, 2000, as supplemented by letters dated October 17, 2008; June 16, 2010 (two letters); July 8, 2010, and August 11, 2010. During our review of the proposed University of Wisconsin Nuclear Reactor (UWNR) technical specifications (TSs), questions have arisen for which we need additional information and clarification. Please address and provide the requested information to the following:

1. Proposed UWNR TS 3.3 contains limits on primary water conductivity but does not contain a limit on pH. NUREG-1537, Chapter 5, Reactor Coolant Systems, Section 5.2, Primary Coolant System, requests applicants to provide coolant quality requirements, including pH. Please explain why a limit on pH is not necessary to limit corrosion of fuel cladding and other materials in the reactor pool; or propose and justify a limit on pH.

2. Proposed UWNR TS 3.2.5 does not contain an interlock to prevent the withdrawal of multiple control elements at the same time. NUREG-1537, Chapter 13, Accident Analysis, Section 13.1.2, Insertion of Excess Reactivity, requests applicants to analyze ramp insertions of reactivity. Please analyze and discuss a reactivity addition event based on the withdrawal of the maximum number of control elements possible in accordance with your TSs. Please discuss the results of the analysis as compared against the safety limit for the reactor.

Enclosure