

September 6, 2013

Paul J. O'Connor, Ph.D.
Facility Director
Dow Chemical TRIGA Research Reactor
Dow Chemical Company
Building 1602
Midland, MI 48674

SUBJECT: DOW CHEMICAL COMPANY – REQUEST FOR ADDITIONAL INFORMATION
REGARDING THE RENEWAL OF FACILITY OPERATING LICENSE NO. R-108
FOR THE DOW CHEMICAL TRIGA RESEARCH REACTOR (TAC NO. ME1595)

Dear Dr. O'Connor:

The U.S. Nuclear Regulatory Commission (NRC) is continuing its review of your application for the renewal of Facility Operating License No. R-108 for the Dow Chemical TRIGA Research Reactor (DTRR), dated April 1, 2009 (a redacted version of the application is available on the NRC's public Web site at www.nrc.gov under Agencywide Documents Access and Management System (ADAMS) Accession No. ML092150443), as supplemented by letter dated February 7, 2012 (ADAMS Accession No. ML12040A128).

We require additional information and clarification on questions that have arisen during our review. Please 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) 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 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." Information related to security should be submitted in accordance with 10CFR 73.21, "Protection of Safeguards Information: Performance requirements."

P. O'Connor

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If you have any questions about this review, or if you need additional time to respond to this request, please contact me at 301-415-0893 or via electronic mail at Geoffrey.Wertz@nrc.gov.

Sincerely,

/Adams Alexander, Jr. 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. 50-264
License No. R-108

Enclosure:
Request for Additional Information

cc: See next page

Dow Chemical Company

Docket No. 50-264

cc:

Office of the Mayor
333 West Ellsworth
Midland, MI 48640

Office of the Governor
Room 1 – Capitol Building
Lansing, MI 48913

Mr. Dan Rader
Environmental Health and Safety
Responsible Care Leader
Chair, Radiation Safety Committee
1790 Building
Midland, MI 48674

Dr. Wayde Konze
Global Research and Development
Director for Analytical Sciences
Chair, Reactor Operations Committee
The Dow Chemical Company
1897 Building
Midland, MI 48667

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

P. O'Connor

- 2 -

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Sincerely,

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

Docket No. 50-264
License No. R-108

Enclosure:
Request for Additional Information

cc: See next page

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ADAMS Accession No.: ML131225A251

*Concurrence via email

NRR-088

OFFICE	NRR/DPR/PRLB/LRPM*	NRR/DPR/PRLB/LA	NRR/DPR/PROB	NRR/DPR/PRLB/BC	NRR/DPR/PRLB/LRPM
NAME	GWertz	PBlechman	BReed	AAdams	GWertz (AAdams for)
DATE	08/12/2013	08/13/2013	08/19/2013	09/06/2013	09/06/2013

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OFFICE OF NUCLEAR REACTOR REGULATION

REQUEST FOR ADDITIONAL INFORMATION REGARDING THE RENEWAL REVIEW FOR

THE DOW CHEMICAL COMPANY TRIGA RESEARCH REACTOR

LICENSE NO. R-108

DOCKET NO. 50-264

The U.S. Nuclear Regulatory Commission (NRC) is continuing its review of your application for the renewal of Facility Operating License No. R-108 for the Dow Chemical TRIGA Research Reactor (DTRR), dated April 1, 2009 (a redacted version of the application is available on the NRC's public Web site at www.nrc.gov under Agencywide Documents Access and Management System (ADAMS) Accession No. ML092150443), as supplemented by letter dated February 7, 2012 (ADAMS Accession No. ML12040A128). We require additional information and clarification on questions that have arisen during our review of the DTRR Physical Security Plan (PSP). Provide responses to the following requests for additional information within 30 days of the date of this letter. Page numbers in brackets [] refer to the DTRR Security Plan page.

1. [Page 1] Paragraph 5 describes normal inventory storage. Please describe any non-normal storage characteristics.
2. [Page 1] Discrepancies in the dimensions of the pool, room, and racks were noted between the PSP and Compensatory Measures (CMs). Provide consistent dimensions.
3. [Page 1] Provide clarification on the security status of door 10.
4. [Page 1] Provide Dow Chemical Company documents for any DTRR CM commitments not provided within the DTRR PSP or NRC-approved Emergency Plan.
5. [Page 4] Location of the Dow Chemical Company security dispatcher.
6. [Page 5] Define ITO.
7. [Page 7] Describe the DTRR commitments to the access authorization as cited in Title 10 of the *Code of Federal Regulations* (10 CFR) 73.57(g), and the site specific CMs. Include the requirements of the reviewing official.
8. [Page 9] Clarify the description of the door with the 6 pin lock.
9. [Page 14] Clarify redundant means of communication.
10. [Page 16] Define normal working hours.

Enclosure

11. The transportation of special nuclear material of low strategic significance is not provided in the DTRR PSP. Describe the process, procedures or actions necessary to meet the requirements of 10 CFR 73.67(g), using information in Regulatory Guide 5.59, "Standard Format and Content for a Licensee Physical Security Plan for the Protection of Special Nuclear Material of Moderate or Low Strategic Significance," Revision 1, February 1983 (ADAMS Accession No. ML100341301), to determine the level of detail.