

June 20, 2003

Dr. Daniel B. Bullen  
Mechanical Engineering Department  
Nuclear Engineering Program  
Iowa State University  
2025 H. M. Black Engineering Building  
Ames, IA 50011-2160

SUBJECT: IOWA STATE UNIVERSITY - TERMINATION OF FACILITY OPERATING  
LICENSE NO. R-59 FOR THE UTR-10 RESEARCH REACTOR (TAC NO.  
MA9026)

Dear Dr. Bullen:

The U.S. Nuclear Regulatory Commission (NRC) has reviewed Iowa State University's (ISU's) request dated March 7, 2003, to terminate Facility Operating License No. R-59 for the ISU UTR-10 Research Reactor. Pursuant to 10 CFR 50.82(b)(6), the NRC staff has concluded that the decommissioning has been performed in accordance with the approved decommissioning plan and that the terminal radiation survey and associated documentation demonstrate that the facility and site are suitable for release in accordance with the criteria for decommissioning in 10 CFR Part 20, Subpart E (10 CFR 20.1402).

The NRC completed its review of the ISU UTR-10 Reactor Final Status Survey Report dated September 2000, which was submitted to NRC by letter dated October 9, 2000, as supplemented on January 18, 2001. The report documented the level of residual radioactivity remaining at the facility and stated that compliance with the provisions of 10 CFR 20.1402 had been demonstrated.

On the basis of the decommissioning activities conducted by ISU, the NRC's review of your final status survey report, the results of NRC inspections conducted at the UTR-10 Research Reactor, and the results of NRC confirmatory surveys, the NRC concludes that the decommissioning process is complete and the facility and site are suitable to be released for unrestricted use. Therefore, Facility Operating License No. R-59 is hereby terminated.

In connection with the license termination, we are enclosing two copies of Amendment No. 12 to Indemnity Agreement No. E-5. Please sign and return one copy to this office.

Dr. D. B. Bullen

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Also enclosed is a copy of the Notice of Approval of Decommissioning Plan and Notice of License Termination which is being sent to the Office of the Federal Register for publication.

Sincerely,

***/RA/***

Patrick M. Madden, Section Chief  
Research and Test Reactors Section  
Operating Reactor Improvements Program  
Division of Regulatory Improvement Programs  
Office of Nuclear Reactor Regulation

Docket No. 50-116

Enclosures: 1. Amendment No. 12 to  
Indemnity Agreement No. E-5  
2. *Federal Register* Notice

cc w/enclosures: See next page

Iowa State University

Docket No. 50-116

cc:

Mayor Ted Tedesco  
City Hall  
515 Clark Avenue  
Ames, IA 50010

Director, Office for Planning  
and Programming  
523 East 12<sup>th</sup> Street  
Des Moines, IA 50319

Mr. Warren DeVries  
Department Executive Officer,  
Mechanical Engineering Department  
2025 H.M. Black Engineering Building  
Ames, IA 50011-2160

Mr. Scott E. Wendt, Reactor Manager  
Mechanical Engineering Department  
209W Nuclear Engineering Laboratory  
Iowa State University  
Ames, IA 50011-2241

Dr. D. B. Bullen

-2-

June 20, 2003

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Sincerely,

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Patrick M. Madden, Section Chief  
Research and Test Reactors Section  
Operating Reactor Improvements Program  
Division of Regulatory Improvement Programs  
Office of Nuclear Reactor Regulation

Docket No. 50-116

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**TEMPLATE #: NRR-106**

\*Please see previous concurrence

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Docket No. 50-116

AMENDMENT TO INDEMNITY AGREEMENT NO. E-5  
AMENDMENT NO. 12

Effective June 20, 2003, Indemnity Agreement No. E-5, between Iowa State University, and the Atomic Energy Commission, dated July 16, 1962, as amended, is hereby terminated.

FOR THE UNITED STATES NUCLEAR REGULATORY COMMISSION

*/RA/*

Brian E. Thomas, Acting Program Director  
Policy and Rulemaking Program  
Division of Regulatory Improvement Programs  
Office of Nuclear Reactor Regulation

Accepted: \_\_\_\_\_, 2003

By: \_\_\_\_\_  
Iowa State University

Docket No. 50-116

AMENDMENT TO INDEMNITY AGREEMENT NO. E-5  
AMENDMENT NO. 12

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FOR THE UNITED STATES NUCLEAR REGULATORY COMMISSION

*/RA/*

Brian E. Thomas, Acting Program Director  
Policy and Rulemaking Program  
Division of Regulatory Improvement Programs  
Office of Nuclear Reactor Regulation

Accepted: \_\_\_\_\_, 2003

By: \_\_\_\_\_  
Iowa State University

UNITED STATES NUCLEAR REGULATORY COMMISSION  
IOWA STATE UNIVERSITY  
DOCKET NO. 50-116  
IOWA STATE UNIVERSITY UTR-10 RESEARCH REACTOR  
NOTICE OF APPROVAL OF DECOMMISSIONING PLAN AND  
NOTICE OF LICENSE TERMINATION

The U.S. Nuclear Regulatory Commission (NRC) is noticing the approval of the decommissioning plan for the Iowa State University (ISU or the licensee) UTR-10 Research Reactor and is also noticing the termination of Facility Operating License No. R-59 for the ISU UTR-10 Research Reactor.

The NRC has terminated the license of the decommissioned ISU UTR-10 Research Reactor, which was located in the Nuclear Engineering Building on the west edge of the main campus of ISU in Ames, Iowa, and has released the site for unrestricted use. The licensee requested termination of the license in a letter to NRC dated March 7, 2003. The ISU UTR-10 Research Reactor was an Argonaut-type, water-moderated and cooled, graphite-reflected reactor. It was licensed and first operated in 1959 and had a licensed thermal power level of 10 kW. The reactor was permanently shut down on May 15, 1998. In January 1999 the

licensee submitted a decommissioning plan to NRC for review and approval. The decommissioning plan was approved by License Amendment No. 14 issued on May 8, 2000.

A "Notice of Application for Decommissioning Amendment, Iowa State University, UTR-10 Research Reactor" appeared in the *Federal Register* on January 25, 1999 (64 FR 3725), and a "Notice and Solicitation of Comments Pursuant to 10 CFR 20.1405 and 10 CFR 50.82(b)(5) Concerning Proposed Action To Decommission Iowa State University UTR-10 Research Reactor" appeared in the *Federal Register* on February 12, 1999 (64 FR 7214). No comments were received.

The NRC completed its review of the ISU UTR-10 Reactor Final Status Survey Report dated September 2000, which was submitted by the licensee to NRC by letter dated October 9, 2000, as supplemented on January 18, 2001. The report documented the level of residual radioactivity remaining at the facility and stated that compliance with the provisions of 10 CFR 20.1402 had been demonstrated.

Pursuant to 10 CFR 50.82(b)(6), the NRC staff concluded that the decommissioning has been performed in accordance with the approved decommissioning plan and that the terminal radiation survey and associated documentation demonstrate that the facility and site are suitable for release in accordance with the criteria for decommissioning in 10 CFR Part 20, Subpart E. Further, on the basis of the decommissioning activities conducted by ISU, the NRC's review of the licensee's final status survey report, the results of NRC inspections conducted at the UTR-10 Research Reactor, and the results of NRC confirmatory surveys, the NRC has concluded that the decommissioning process is complete, and the facility and site are suitable to be released for unrestricted use. Based on the NRC staff's conclusions, Facility Operating License No. R-59 has been terminated.



For further details see the licensee's application for decommissioning dated January 4 and 6, 1999; License Amendment No. 14 to Facility Operating License No. R-59 dated May 8, 2000; the licensee's request for license termination dated March 7, 2003; the ISU UTR-10 Reactor Final Status Survey Report dated September 2000, which was submitted to NRC by letter dated October 9, 2000, as supplemented on January 18, 2001; and NRC Inspection Report No. 50-116/2000-201, dated May 9, 2003. Documents may be examined, and/or copied for a fee, at the NRC's Public Document Room (PDR), located at One White Flint North, 11555 Rockville Pike (first floor), Rockville, Maryland. Publicly available records for ISU dated after January 30, 2000, will be accessible electronically from the Agencywide Documents Access and Management System (ADAMS) Public Electronic Reading Room on the Internet at the NRC Web site, <http://www.nrc.gov/reading-rm/adams.html>. Persons who do not have access to ADAMS or who encounter problems in accessing the documents located in ADAMS should call the NRC PDR reference staff at 1-800-397-4209 or 301-415-4737 or e-mail to [pdr@nrc.gov](mailto:pdr@nrc.gov).

Dated at Rockville, Maryland, this 20<sup>th</sup> day of June 2003.

FOR THE NUCLEAR REGULATORY COMMISSION

*/RA by Daniel Hughes, Acting for/*

Daniel E. Hughes, Acting Section Chief  
Research and Test Reactors Section  
Operating Reactor Improvements Program  
Division of Regulatory Improvement Programs  
Office of Nuclear Reactor Regulation