

**NUCLEAR REGULATORY COMMISSION**

**[Docket No. 50-166; NRC-2010-0250]**

**University of Maryland**

**Maryland University Training Reactor**

**AGENCY:** Nuclear Regulatory Commission.

**ACTION:** License renewal; issuance.

**SUMMARY:** The U.S. Nuclear Regulatory Commission (NRC) issued a renewal of Facility Operating License No. R-70, held by the University of Maryland (UMD or the licensee) for the continued operation of its Maryland University Training Reactor (MUTR or the facility) Training, Research, Isotope Production, General Atomics (TRIGA) reactor for an additional 20 years.

**DATES:** The operating license renewal No. R-70 is effective on December 22, 2016.

**ADDRESSES:** Please refer to Docket ID NRC-2010-0250 when contacting the NRC about the availability of information regarding this document. You may obtain publicly-available information related to this document using any of the following methods:

- **Federal Rulemaking Web site:** Go to <http://www.regulations.gov> and search for Docket ID **NRC-2010-0250**. Address questions about NRC dockets to Carol Gallagher; telephone: 301-415-3463; e-mail: [Carol.Gallagher@nrc.gov](mailto:Carol.Gallagher@nrc.gov). For technical questions, contact the individual listed in the FOR FURTHER INFORMATION CONTACT section of this document.

- **NRC’s Agencywide Documents Access and Management System (ADAMS):**

You may obtain publicly available documents online in the ADAMS Public Documents collection at <http://www.nrc.gov/reading-rm/adams.html>. To begin the search, select “[ADAMS Public Documents](#)” and then select “[Begin Web-based ADAMS Search](#).” For problems with ADAMS, please contact the NRC’s Public Document Room (PDR) reference staff at 1-800-397-4209, 301-415-4737, or by e-mail to [pdr.resource@nrc.gov](mailto:pdr.resource@nrc.gov). The ADAMS accession number for each document referenced (if it available in ADAMS) is provided the first time that a document is referenced. For the convenience of the reader, the ADAMS accession numbers are provided in a table in the “Availability of Documents” section of this document.

- **NRC’s PDR:** You may examine and purchase copies of public documents at the NRC’s PDR, Room O1-F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852.

**FOR FURTHER INFORMATION CONTACT:** Eben Allen, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; telephone: 301-415-4246; e-mail: [Eben.Allen@nrc.gov](mailto:Eben.Allen@nrc.gov).

**SUPPLEMENTARY INFORMATION:**

**I. Discussion**

The NRC has issued renewed Facility Operating License No. R-70, held by the licensee, which authorizes continued operation of the MUTR, located in College Park, Maryland. The MUTR is a heterogeneous pool-type, natural convection, light-water cooled, and shielded TRIGA reactor. The MUTR is licensed to operate at a steady-state power level of 250 kilowatts

thermal. The renewed Facility Operating License No. R-70 will expire 20 years from its date of issuance.

The renewed facility operating license complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's regulations in chapter I of title 10 of the *Code of Federal Regulations* (10 CFR), and sets forth those findings in the renewed facility operating license. The agency afforded an opportunity for hearing in the Notice of Opportunity for Hearing published in the *Federal Register* on July 26, 2010 (75 FR 43566). The NRC received no request for a hearing or petition for leave to intervene following the notice.

The NRC staff prepared a safety evaluation report for the renewal of Facility Operating License No. R-70 and concluded, based on that evaluation, that the licensee can continue to operate the facility without endangering the health and safety of the public. The NRC staff also prepared an Environmental Assessment and Finding of No Significant Impact for the renewal of the facility operating license, noticed in the *Federal Register* on December 22, 2016 (81 FR 93969), and concluded that renewal of the facility operating license will not have a significant impact on the quality of the human environment.

## **II. Availability of Documents**

The documents identified in the following table are available to interested persons through ADAMS accession numbers, as indicated.

<b>DOCUMENT</b>	<b>ADAMS Accession No.</b>
University of Maryland, Request for Renewal of Class 104 Operating License R-70., May 12, 2000	ML052910399
University of Maryland - Request for Additional Information Re: Renewal of License R-70, October 10, 2002	ML022690533
Transmittal of the University of Maryland's Response to the Request for Additional Information Pertaining to Sections Six through Ten of the Safety Analysis Report (SAR), June 7, 2004	ML101970211
University of Maryland's Response to the Request for Additional Information Re: Environmental Report for Training Reactor, August 4, 2004	ML042240227
Submittal of Additional Information as it Pertains to Section Eleven of the Safety Analysis Report for the Maryland University Training Reactor, September 17, 2004	ML042940317
Response to the Request for Additional Information as it Pertains to Section Twelve of the Safety Analysis Report for the Maryland University Training Reactor, October 7, 2004	ML042940408
University of Maryland - Response to RAI Regarding the Technical Specifications for the Maryland University Training Reactor, April 18, 2005	ML051160054
University of Maryland's Response to Request for Additional Information, as it Pertains to Section Two of Safety Analysis Report for Maryland University Training Reactor, April 25, 2006	ML061250233
University of Maryland's Response to Request for Additional Information, as it Pertains to Section Two of Safety Analysis Report for Maryland University Training Reactor, April 25, 2006	ML061280383
University of Maryland Responses to RAIs on the SAR, August 28, 2006	ML101970209
University of Maryland, Response to Request for Additional Information, September 7, 2006	ML16083A222
University of Maryland Responses to RAIs on the SAR, November 9, 2006	ML101970210
University of Maryland's Response to Request for Additional Information as it Pertains to Technical Specifications for Maryland University Training Reactor, December 18, 2006	ML101480913
University of Maryland, Request for Additional Information Regarding the License Renewal for the Maryland University Training and Research Reactor, December 10, 2009	ML093420068
University of Maryland, Request for Additional Information Regarding License Renewal Technical Matters (TAC ME1592), April 6, 2010	ML100840239
University of MD Training Reactor (MUTR) - Submitting Responses to NRC 12/10/09 Request for Additional Information Regarding Financial Qualifications for Renewal of License, May 27, 2010	ML101670413
University of Maryland Responses Request for Additional Information Regarding the License Renewal for Maryland University Training Reactor, July 28, 2010	ML102110049

University of Maryland Training Reactor, Request for Additional Information Regarding License Renewal Revised Technical Specifications dated December 18, 2006 (TAC No. ME1592), August 20, 2010	ML102230338
University of Maryland, Request for Additional Information Regarding the License Renewal for the Maryland University Training Reactor, September 22, 2010	ML102710556
University of Maryland, Maryland University Training Reactor (MUTRA), Request for Additional Information (RAI) Regarding Remaining Technical Specifications, January 31, 2011	ML110320459
University of Maryland, Maryland University Training Reactor, Response to Request No. #2 to the NRC's April 6, 2010, Request for Additional Information, February 2, 2011	ML110350175
University of Maryland, Maryland University Training Reactor ("MUTR"), Technical Specifications, Response to February 18, 2011, Request for Additional Information ("RAI") Regarding Remaining Technical Specifications, May 2, 2011	ML11124A124
University of Maryland, NRC Response to Letter Dated May 2, 2011, June 22, 2011	ML11171A566
University of Maryland, Maryland, Response to Request for Additional Information in Regard to Remaining Technical Specifications, July 5, 2011	ML11189A065
University of Maryland, Response to Request for Additional Information Regarding Dose to General Public in the Event of Maximum Hypothetical Accident (MHA), July 29, 2011	ML16231A339
University of Maryland - Request for Additional Information Regarding the License Renewal for the Maryland University Training Reactor (Related to May 2, 2011) (TAC No. ME1592), August 26, 2011	ML112130086
University of Maryland - Request for Additional Information Regarding Dose Calculations, September 8, 2011	ML112380621
University of Maryland, Request for Additional Information Regarding License Renewal for Maryland University Training Reactor (TAC No. ME1592), September 28, 2011	ML11277A026
University of Maryland - Request for Additional Information Regarding the License Renewal for the Maryland University Training Reactor, October 12, 2011	ML11286A337
University of Maryland - Response to NRC Request for Additional Information Regarding the License Renewal for the Maryland University Training Reactor, February 9, 2012	ML12060A344
University of Maryland - Request for Additional Information Re: Reactor Operator Requalification Program, February 15, 2012	ML102660113
University of Maryland - Request for Additional Information Re: Reactor Operator Requalification Program (TAC No. ME2431), March 14, 2012	ML12081A017
University of Maryland, Request for Additional Information Regarding the License Renewal for the Maryland University Training Reactor ("MUTR"), May 22, 2012	ML12172A139
University of Maryland - Request for Additional Information, Re: Reactor Operator Requalification Program (TAC ME2431), July 16, 2012	ML121870709

University of Maryland, Response to Request for Additional Information Regarding the License Renewal for the Training Reactor (“MUTR”), August 29, 2012	ML12255A400
University of Maryland - Review and Approval of the Requalification Training Program for Licensed Operators (TAC No. ME1592), November 15, 2012	ML12306A112
University of Maryland - License Renewal for the Maryland University Training Reactor (MUTR), TAC ME1592), March 21, 2013	ML13095A006
University of Maryland, College Park Request for Additional Information Re: Financial Update for License Renewal for the University of Maryland (TAC ME1592), June 2, 2014	ML14141A630
University of Maryland Training Reactor - Report on AR-41 Mitigation, June 18, 2014	ML14176A078
University of Maryland - Request for Additional Information Re: Review of the Argon-41 Radiological Dose Assessment for License Renewal (TAC ME1592), September 25, 2014	ML14266A658
University of Maryland, Response to Request for Additional Information Regarding Financial Update for License Renewal, November 25, 2014	ML14342A563
University of Maryland - Request for Additional Information Re: Review of the ARGON-41 Radiological Dose Assessment for License Renewal of the Maryland University Training Reactor (TAC No. ME1592) November 25, 2014	ML14332A300
University Of Maryland - Revised Physical Security Plan For License Renewal Of The Maryland University Training Reactor (TAC ME1592) License No. 70; Docket No. 50-166, December 19, 2014	ML14364A086
Letter Request for Additional Information RE: Physical Security Plan Review for License Renewal (TAC No. ME1592), March 12, 2015	ML15058A276
University of Maryland- Request for Additional Information for License Renewal of the Maryland University Training Reactor (TAC No. ME1592), August 21, 2015	ML15083A383
University of Maryland - Request for Additional Information for License Renewal of the Maryland University Training Reactor Pertaining to Thermal Hydraulics, September 10, 2015	ML15219A471
University of Maryland - Request for Additional Information for License Renewal Pertaining to Thermal Hydraulics, December 2, 2015	ML15349A894
University of Maryland - Response to Request for Additional Information for License Renewal, January 5, 2016	ML16008A072
University of Maryland - Request for Additional Information Re: For the Renewal of Facility Operating License No. R-70 the Maryland University Training Reactor Docket No. 50-166, February 29, 2016	ML16061A003
University of Maryland – License Amendment Re: SNM Limit, Docket No. 50-166, License No. R-70, University of Maryland, November 1, 2016	ML16312A066
University of Maryland - Request for Additional Information Re: For the Renewal of Facility Operating License No. R-70 the Maryland University Training Reactor Docket No. 50-166, November 2, 2016	ML16309A184

University of Maryland - Request for Additional Information Re: For the Renewal of Facility Operating License No. R-70 the Maryland University Training Reactor Docket No. 50-166 ME1592, November 10, 2016,	ML16320A007
University of Maryland - Request for Additional Information Re: For the Renewal of Facility Operating License No. R-70 the Maryland University Training Reactor Docket No. 50-166, November 17, 2016	ML16323A447
University of Maryland - Request for Additional Information Regarding The Review of License Renewal For the Maryland University Training Reactor (TAC No. ME1592), November 17, 2016	ML16323A446
University of Maryland, Re: Conversation of Record Support of MUTR License Renewal, December 2, 2016	ML16337A389

Dated at Rockville, Maryland, this 22<sup>nd</sup> day of December 2016.

For the Nuclear Regulatory Commission.

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