

NUCLEAR REGULATORY COMMISSION

[Docket No. 50-223; NRC-2018-0053]

University of Massachusetts Lowell

University of Massachusetts Lowell Research Reactor

AGENCY: Nuclear Regulatory Commission.

ACTION: License renewal; issuance.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) has issued a renewal of Facility Operating License No. R-125, held by the University of Massachusetts Lowell (UML, the licensee), for the continued operation of the University of Massachusetts Lowell Research Reactor (UMLRR) for an additional 20 years from the date of issuance. The facility is located on the UML campus in Lowell, Massachusetts.

DATE: Renewed Facility Operating License No. R-125 was issued on February 3, 2022, and is effective as of the date of issuance.

ADDRESSES: Please refer to Docket ID **NRC-2018-0053** 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 Website:** Go to <https://www.regulations.gov> and search for Docket ID **NRC-2018-0053**. Address questions about Docket IDs in Regulations.gov to Stacy Schumann; telephone: 301-415-0624; email: Stacy.Schumann@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 <https://www.nrc.gov/reading-rm/adams.html>. To begin the search, 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 email to PDR.Resource@nrc.gov. 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, by appointment, at the NRC’s PDR, Room P1 B35, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852. To make an appointment to visit the PDR, please send an email to PDR.Resource@nrc.gov or call 1-800-397-4209 or 301-415-4737, between 8:00 a.m. and 4:00 p.m. (ET), Monday through Friday, except Federal holidays.

FOR FURTHER INFORMATION CONTACT: Edward Helvenston, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; telephone: 301-415-4067; email: Edward.Helvenston@nrc.gov.

SUPPLEMENTARY INFORMATION:

I. Discussion

The NRC has issued a renewal of Facility Operating License No. R-125, held by UML, which authorizes operation of the UMLRR. The UMLRR is a plate-type-fueled research reactor located on the UML campus in Lowell, Massachusetts. The renewed license continues to authorize the licensee to operate the UMLRR at a steady-state power level up to a maximum of 1000 kilowatts (thermal). Renewed Facility Operating License No. R-125 will expire 20 years from its date of issuance, February 3, 2022.

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 set forth in chapter I of title 10 of the *Code of Federal Regulations*. The Commission has made appropriate findings as required by the Act and the Commission’s regulations, and sets forth those findings in the renewed facility operating license. The agency afforded an opportunity for hearing in the Notice of Opportunity to Request a Hearing published in the *Federal Register* on March 19, 2018 (83 FR 12036). The NRC received no requests for a hearing following the notice.

The NRC staff prepared a safety evaluation report (SER) – Renewal of the Facility Operating License for the University of Massachusetts Lowell Research Reactor related to the renewal of Facility Operating License No. R-125 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 regarding the renewal of the facility operating license, published in the *Federal Register* on August 4, 2021 (86 FR 41998), 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

Documents related to this action, including the license renewal application and other supporting documentation, and the SER prepared by the NRC staff for the license renewal, are available to interested persons as indicated.

Document	ADAMS Accession No.
University of Massachusetts at Lowell, Submittal of Revision 7 to Emergency Plan, dated May 23, 2013	ML17296B070 (Package)
University of Massachusetts at Lowell, Submittal of Revision 7 to Physical Security Plan, dated January 13, 2015	ML15015A016

University of Massachusetts Lowell, Request for Renewal of Facility Operating License R-125 and SAR, dated October 20, 2015	ML16042A015 (Package)
University of Massachusetts Lowell, Submittal of Revision 2 to Operator Requalification Program, dated March 16, 2016	ML16076A405 (Package)
University of Massachusetts Lowell, Response to Request for Additional Information Regarding the Operator Requalification Program for License Renewal and Submittal of Revision 3 to Operator Requalification Program, dated November 30, 2016	ML16335A327 (Package)
University of Massachusetts Lowell, Response to Request for Additional Information for License Renewal, dated March 31, 2017	ML17090A348 (Package)
University of Massachusetts Lowell, Response to Request for Additional Information Regarding Financial Qualifications for License Renewal, dated July 11, 2017	ML17192A428 (Package)
University of Massachusetts Lowell, Response to Request for Additional Information Regarding the Physical Security Plan for License Renewal and Submittal of Revision 8 to Physical Security Plan, dated August 7, 2017	ML17222A071
University of Massachusetts Lowell, Submittal of Revision 9 to Physical Security Plan, dated September 13, 2017	ML17261A211
University of Massachusetts Lowell, Response to Request for Additional Information for License Renewal, dated January 6, 2018	ML18006A003 (Package)
University of Massachusetts Lowell, Additional Clarifying Information for License Renewal, dated February 1, 2018	ML18032A534 (Package)
University of Massachusetts Lowell, Response to Request for Additional Information Primarily Related to Technical Specifications, dated March 5, 2019	ML19064B373 (Package)
University of Massachusetts Lowell, Submittal of Revised SAR Section 7.4.1.2, dated April 10, 2019	ML19100A273
University of Massachusetts Lowell, Response to Request for Additional Information Primary Related to Instrumentation and Controls, dated October 18, 2019	ML19291C293
University of Massachusetts Lowell, Supplement to October 18, 2019, Response to Request for Additional Information, dated October 24, 2019	ML19297F433
University of Massachusetts Lowell, Second Supplement to October 18, 2019, Response to Request for Additional Information, dated December 19, 2019	ML19353C523

University of Massachusetts Lowell, Supplement to December 19, 2019, letter, dated December 20, 2019	ML19354A610
University of Massachusetts Lowell, Response to Items 7.4.c and 7.5.a from Request for Additional Information Primarily Related to Instrumentation and Controls, dated February 24, 2020	ML20055F604
University of Massachusetts Lowell, Supplemental Information Provided in Response to Audit, dated September 30, 2020	ML20274A248 (Package)
University of Massachusetts Lowell, Supplemental Information Provided in Response to Audit, dated January 30, 2021	ML21030A004
University of Massachusetts Lowell, Supplemental Information Provided in Response to Audit, dated February 16, 2021	ML21047A245
University of Massachusetts Lowell, Request for Additional Language in Proposed License Conditions, dated April 5, 2021	ML21095A245
University of Massachusetts Lowell, Review of Renewal License Conditions, dated April 20, 2021	ML21110A053
NRC Staff Safety Evaluation Report – Renewal of the Facility Operating License for the University of Massachusetts Lowell Research Reactor, dated February 3, 2022	ML21168A054

Dated: February 9, 2022.

For the Nuclear Regulatory Commission.

/RA/

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