



MIT NUCLEAR REACTOR LABORATORY

AN MIT INTERDEPARTMENTAL CENTER

John P. Foster
Director of Reactor Operations

Mail Stop: NW12-110
138 Albany Street
Cambridge, MA 02139

Phone: 617 253-4211
Fax: 617 324-0042
Email: jpfoster@mit.edu

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Attn: Document Control Desk
Director, Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, DC 20555

Subject: Proposal for Conversion to Low Enriched Uranium (LEU), MIT Research Reactor,
Docket No. 50-20, 10 CFR 50.64 (c)(2)(ii) of that paragraph.

Dear Sir or Madam:

In accordance with 10 CFR 50.64 "Limitation of the Use of Highly Enriched Uranium in Domestic Non-Power Reactors," the MIT Nuclear Reactor Laboratory submits herewith the information required by subsection (c)(2)(ii) of that paragraph.

The high-density low enriched uranium fuel (U-10Mo) will not be available during Fiscal Year 2020. Furthermore, specific to 10 CFR 50.64(c)(2)(ii), Federal Government funding for conversion to LEU will not be available. However, we wish to note that we continue to receive funding for studies that will enable us to perform the conversion and planning once the proposed fuel completes qualification tests. In particular, a new LEU fuel element design was developed. LEU core designs for the MITR have been analyzed and demonstrated to meet nuclear safety and performance criteria. In December of 2017, a Preliminary Safety Analysis Report (PSAR) for the LEU conversion was submitted to the NRC. The PSAR contains the LEU fuel design, steady-state, and transient analyses relevant to the proposed LEU core.

Sincerely,

Lin-wen Hu, Ph.D.
Director, Research and Services

John P. Foster
Director of Reactor Operations

Cc: USNRC – Senior Project Manager
Research and Test Reactors Licensing Branch
Division of Policy and Rulemaking
Office of Nuclear Reactor Regulation

USNRC – Senior Reactor Inspector
Research and Test Reactors Oversight Branch
Division of Policy and Rulemaking
Office of Nuclear Reactor Regulation

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