

# MIT NUCLEAR REACTOR LABORATORY

AN MIT INTERDEPARTMENTAL CENTER

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14 February 2018

U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Attn.: Document Control Desk

Subject: Supplement to License Amendment Request for Experiment Approval Process Tech  
Spec, Docket No. 50-20, License R-37

The Massachusetts Institute of Technology hereby submits information supplemental to its 24 January 2018 License R-37 Amendment Request (LAR) for a change to Technical Specification 7.5.2.1, modifying the procedure approval requirements for reactor experiments of a type not previously approved.

This supplemental information is contained in the enclosed memo, "Supplemental Evaluation of the SR#-2018-2 Proposed Revision to Technical Specification 7.5.2.1, Referencing ANSI/ANS Standard 15.1 and NUREG-1537", dated 14 February 2018. It provides reference to ANSI/ANS 15.1-2007 and NUREG-1537 Part 1, Appendix 14.1, to support the basis of this amendment request.

Sincerely,

Edward S. Lau, NE  
Assistant Director of Reactor Operations  
MIT Research Reactor

Alberto Queirolo  
Director of Reactor Operations  
MIT Research Reactor

I declare under penalty of perjury that the foregoing is true and correct.

Executed on February 14, 2018  
Date

  
Signature

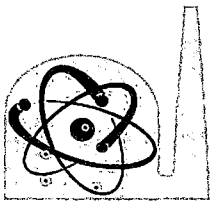
EL/t

Enclosure: As stated

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  
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# MIT NUCLEAR REACTOR LABORATORY

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14 February 2018

## Memorandum

To: Safety Review #2018-2 File

From: E. Lau, Assistant Director of Reactor Operations

Subject: Supplemental Evaluation of the SR#-2018-2 Proposed Revision to Technical Specification 7.5.2.1, Referencing ANSI/ANS Standard 15.1 and NUREG-1537

1. The proposed revision to Technical Specification (TS) 7.5.2.1 satisfies the guidance in ANSI/ANS 15.1-2007 "The Development of Technical Specifications for Research Reactors", Section 6.5 "Experiments Review and Approval". Accordingly, Section 6.5 (1) states, "All new experiments or class of experiments shall be reviewed by the review group and approved in writing by Level 2 or designated alternates prior to initiation." For the MIT Reactor, "Level 2 or designated alternates" are senior personnel in the Reactor Operations group, specifically the Director of Reactor Operations (DRO) or designated Acting DRO. Furthermore, ANSI/ANS 15.1-2007 Section 6.4 "Procedures" states that written procedures shall be reviewed by the review group and approved by Level 2 management or designated alternates, including those procedures "for the conduct of irradiations and experiments that could affect reactor safety or core reactivity." The existing TS 7.4 "Procedures" aligns well with Section 6.4 of ANSI/ANS 15.1-2007. Therefore, the revised TS ensures that both of these ANSI/ANS guidelines continue to be met.
2. In addition, it is noted that NUREG-1537 Part 1, Appendix 14.1 "Format and Content of Technical Specifications for Non-Power Reactors", Section 6.5 "Experiments Review and Approval" states, "Any changes made to these [experiment] procedures should conform to Section 6.4 of ANSI/ANS 15.1". This is discussed above and aligns well with the intent and effect of the proposed TS revision.

EL/t