



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

January 24, 2017

MEMORANDUM TO: Robert Johnson, Chief  
Fuel Manufacturing Branch  
Fuel Facility Licensing Directorate  
Division of Fuel Cycle Safety, Safeguards  
and Environmental Review  
Office of Nuclear Material Safety and Safeguards

FROM: Christopher McKenney, Chief */RA/*  
Performance Assessment Branch  
Division of Decommissioning, Uranium Recovery  
and Waste Programs  
Office of Nuclear Material Safety and Safeguards

SUBJECT: SAFETY EVALUATION REPORT INPUT WITH RESPECT TO  
MASSACHUSETTS INSTITUTE OF TECHNOLOGY'S 2016-2017 SELF-  
GUARANTEE FOR DECOMMISSIONING FINANCIAL ASSURANCE

Enclosed is the Performance Assessment Branch staff's SER input for Massachusetts Institute of Technology's 2016-2017 self-guarantee for decommissioning financial assurance for its Special Nuclear Material license. Please contact Reginald Augustus if you have any specific questions regarding our input.

Docket No.: 70-938  
License No.: SNM-986

Enclosure:  
Massachusetts Institute of Technology Safety Evaluation Report Input

CONTACT: Reginald Augustus, NMSS/DUWP  
(301) 415-0165

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## **SAFETY EVALUATION REPORT INPUT**

DOCKET: 70-938

LICENSE: SNM-986

LICENSEE: MASSACHUSETTS INSTITUTE OF TECHNOLOGY (MIT)

SUBJECT: 2016-2017 MIT SELF-GUARANTEE ANNUAL CERTIFICATION

### **BACKGROUND**

In a letter dated September 30, 2016, Massachusetts Institute of Technology (MIT) submitted its annual certification of its self-guarantee (SG) for decommissioning financial assurance for its Special Nuclear Material license (SNM-986). On October 13, 2016, the Fuel Manufacturing Branch (FMB) requested technical assistance with the SG submission from the Performance Assessment Branch (PAB). On November 14, 2016, the Performance Assessment Branch (PAB) determined that MIT's SG submittal was adequate to perform a technical review. On December 28, 2016, the PAB branch completed its technical review of MIT's SG submittal.

### **DISCUSSION**

#### **Regulatory Requirements**

Nuclear facilities licensed under 10 CFR Part 70 are required to establish adequate financial assurance for decommissioning, decontamination and reclamation pursuant to 10 CFR 70.25, "Financial Assurance and Recordkeeping for Decommissioning" respectively. 10 CFR Part 70.25 requires that non-profit college and university licensees that provide reasonable assurance of available funds for decommissioning costs through an SG are required to annually provide an SG agreement and pass a financial test pursuant to Appendix E to 10 CFR Part 30, "Criteria Relating to Use of Financial Tests and Self-Guarantees For Providing Reasonable Assurance of Funds For Decommissioning by Nonprofit Colleges, Universities, and Hospitals." MIT is a holder of a Reactor license and a Special Nuclear Material license. This review pertains to MIT's Special Nuclear Material license.

#### **Staff Review**

Upon review of MIT's September 30, 2016, submittal, as detailed below, the staff finds that MIT's SG is acceptable.

#### **Staff Review of Self-Guarantee and Supporting Documentation**

In its review, the staff relied on the regulations set forth in Appendix E to 10 CFR Part 30 and 10 CFR 70.25, as well as NRC guidance contained in NUREG-1757, Volume 3, Rev. 1, Appendix A.9. MIT's September 30, 2016 SG submission included:

- a SG;
- a letter from MIT's Executive Vice President and Treasurer (CFO) and financial test;
- a Report of Independent Accountants; and
- MIT's Independent Auditor's Report within its Report of the Treasurer (June 30, 2016).

Enclosure

MIT has previously submitted both an SG agreement and Standby Trust Agreement (STA) that has been approved by NRC staff. Both agreements remain adequate to cover all decommissioning costs identified in MIT's latest SG submission.

In order for MIT to qualify for use of a SG, it must satisfy the criteria found in 10 CFR Part 30, Appendix E, Section II.A.1 or A.2. MIT's SG submission intends to demonstrate compliance with 10 CFR Part 30, Appendix E, Section II.A.1 (the "Financial Test"). The Financial Test, in pertinent part, requires that MIT have a current rating for its most recent bond issuance of AAA, AA, A as issued by Standard & Poor's or Aaa, Aa, or A as issued by Moody's.

As part of the SG submission, the letter from MIT's Executive Vice President and Treasurer (CFO) included the identification of the Financial Test used as part of NUREG-1757, Volume 3, Appendix A, Checklist 9-B to demonstrate passage of the Financial Test.

The SG submission states that the current bond rating of the most recent unsecured bond issuance is AAA, as rated by Standard & Poor's. Therefore, MIT meets the requirement of 10 CFR Part 30, Appendix E, Section II.A.1. Thus, MIT meets the requirements of the Financial Test.

10 CFR Part 30, Appendix E, Section III.A through F, describes the terms that are required in a SG:

- A. The guarantee will remain in force unless the licensee sends notice of cancellation by certified mail, and/or return receipt requested to the NRC. Cancellation may not occur unless an alternative financial assurance mechanism is in place;
- B. The license shall provide alternate financial assurance as specified in the NRC's regulations within 90 days following receipt by the NRC of a notice of cancellation of the guarantee;
- C. The guarantee and financial test provisions must remain in effect until the NRC has terminated the license or until another financial assurance method acceptable to the NRC has been put in effect by the licensee;
- D. The applicant or licensee must provide to the NRC a written guarantee which states that the licensee will fund and carry out the required decommissioning activities or, upon issuance of an order by the NRC, the licensee will set up and fund a trust in the amount of the current cost estimates for decommissioning; and
- E. If, at any time, the licensee's most recent bond issuance ceases to be rated in any category of "A" or above by either Standard and Poors or Moodys, the licensee shall provide notice in writing of such fact to the NRC within 20 days after publication of the change by the rating service;
- F. A standby trust must be established to protect public health and safety and the environment for decommissioning costs prior to an SG being submitted.

The staff finds the language of the SG submission complies with the terms and conditions needed in NUREG-1757, Volume 3, Appendix A.13. Because the SG is consistent with the recommended language contained in NUREG-1757, Volume 3, Appendix A.9, Checklist B, which the NRC staff has previously determined would comply with the NRC's regulatory requirements, the staff therefore finds that the proposed SG meets the requirements of 10 CFR Part 30, Appendix E, Section III.A, B, C, D, E, and F.

The staff finds that MIT meets the requirements of the Financial Test set forth in 10 CFR Part 30, Appendix E, Section II.A.1, the SG and CFO Letter are consistent with NRC guidance, and that the SG meets the requirements of 10 CFR Part 30, Appendix E, Section III.A through F.

## **CONCLUSION**

On the basis of the staff's review, as discussed above, MIT has demonstrated that (1) its financial condition meets the requirements of 10 CFR Part 30, Appendix E and (2) the language of the CFO Letter, independent auditor's report, and previously submitted and approved SG agreement and STA agreement are consistent with NRC guidance. Therefore, the staff finds that MIT's SG and supporting documentation are acceptable and are, therefore, approved.