

April 15, 2014

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

FROM: Lydia Chang, Chief **/RA/**  
Special Projects Branch  
Decommissioning and Uranium Recovery  
Licensing Directorate  
Division of Waste Management  
and Environmental Protection  
Office of Federal and State Materials  
and Environmental Management Programs

SUBJECT: SAFETY EVALUATION REPORT INPUT WITH RESPECT TO  
MASSACHUSETTS INSTITUTE OF TECHNOLOGY SELF-  
GUARANTEE

Enclosed is our Safety Evaluation Report (SER) input with respect to the self-guarantee for Massachusetts Institute of Technology's Special Nuclear Material license. Please contact Reginald Augustus if you have any specific questions regarding our input.

Docket Nos.: 70-938  
License Nos.: SNM-986

Enclosure:  
Massachusetts Institute of Technology Safety Evaluation Report Input

CONTACT: Reginald Augustus, FSME/DWMEP  
(301) 415-0165

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## **SAFETY EVALUATION REPORT INPUT**

DOCKET: 70-938

LICENSE: SNM-986

LICENSEE: MASSACHUSETTS INSTITUTE OF TECHNOLOGY (MIT)

SUBJECT: MIT SELF-GUARANTEE ANNUAL CERTIFICATION

### **BACKGROUND**

In a letter dated January 14, 2014, Massachusetts Institute of Technology (MIT) submitted its annual certification of its self-guarantee (SG) for its Special Nuclear Material license (SNM-986). On February 24, 2014, the Special Projects Branch (SPB) submitted a memo to the Fuel Manufacturing Branch (FMB) stating that MIT's submittal was adequate to perform a detailed review. On March 25, 2014, MIT submitted a draft Standby Trust Agreement (STA) per NRC's request, to meet the regulatory requirements for an STA to be established for SG's. On March 31, 2014, NRC staff informed MIT via email that the draft STA was consistent with NRC guidance and regulatory requirements.

### **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." 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 January 14, 2014, 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 January 14, 2014, submittal included:

- an SG;
- a letter from MIT's Executive Vice President and Treasurer (CFO) and financial test;

Enclosure

- a STA;
- and MIT's Audited Financial Statements and Auditor's Opinion

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 January 14, 2014, submittal 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 January 14, 2014, submittal, 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 submittal 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 Poor's or Moody's, 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 to comply 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.

Relying upon the SG submission, 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, CFO Letter, and Audited Financial Statements are consistent with NRC guidance and the requirements of 10 CFR Part 30, Appendix E, Section III. A through F. The staff therefore finds the SG submission acceptable.

## **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 SG, CFO Letter, Audited Financial Statements and auditor's opinion and Standby Trust Agreement are consistent with NRC guidance. Therefore, the staff finds that MIT's SG and supporting documentation are acceptable and are, therefore, approved.