

Via Federal Express Mail

April 10, 2014

Tyrone Naquin, CHP
U. S. Nuclear Regulatory Commission
Three White Flint, Mailstop 13C-64M
11601 Landsdown Street
North Bethesda, MD 20852



Re: Standby Trust Agreement for the Decommissioning of the MIT Nuclear Reactor

Dear Mr. Naquin:

Enclosed please find one (1) original of the fully executed Standby Trust Agreement for the Decommissioning of the MIT Nuclear Reactor.

If you have any questions concerning this matter, please contact Regina Dugan at (617-253-2823) or dugan@mit.edu.

Sincerely,

A handwritten signature in black ink, appearing to read "Gail Fillion".

Gail Fillion
Legal Assistant

cc: U.S. Nuclear Regulatory Commission Document Processing Center

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**STANDBY TRUST AGREEMENT FOR THE DECOMMISSIONING OF THE
MIT NUCLEAR REACTOR**

TRUST AGREEMENT, the Agreement entered into as of April 9, 2014, by and between Massachusetts Institute of Technology, a Massachusetts non-profitable corporation, with principal place of administration located in Cambridge, Massachusetts, herein referred to as the "Grantor," and State Street Bank and Trust Company, a Massachusetts trust company, the "Trustee."

WHEREAS, the U.S. Nuclear Regulatory Commission (NRC), an agency of the U.S. Government, pursuant to the Atomic Energy Act of 1954, as amended, and the Energy Reorganization Act of 1974 has promulgated regulations in Title 10, Chapter I, of the *Code of Federal Regulations*, Part 50 and Part 70. These regulations, applicable to the Grantor, require that a holder of, or an applicant for, two materials licenses, issued pursuant to 10 CFR Part 50 and Part 70, provide assurance that funds will be available when needed for required decommissioning activities; and

WHEREAS, the Grantor has elected to use a self-guarantee to provide all of such financial assurance for the facilities identified herein; and

WHEREAS, when payment is made under a self-guarantee, this standby trust shall be used for the receipt of such payment in the event that the Grantor defaults under its self-guarantee; and

WHEREAS, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this Agreement, and the Trustee is willing to act as trustee.

NOW, THEREFORE, the Grantor and the Trustee agree as follows:

Section 1. Definitions. As used in this Agreement:

(a) The term "Grantor" means the NRC licensee who enters into this Agreement and any successors or assigns of the Grantor.

(b) The term "Trustee" means the trustee who enters into this Agreement and any successor trustee.

Section 2. Costs of Decommissioning. This Agreement pertains to the costs of decommissioning the materials and activities identified in License Number SNM-986 and License Number R-37 issued pursuant to 10 CFR Part 50 and Part 70 respectively, as shown in **Schedule A**.

Section 3. Establishment of Fund. The Grantor and the Trustee hereby establish a standby trust fund (the Fund) for the benefit of NRC. The Grantor and the Trustee intend that no third party shall have access to the Fund except as provided herein.

Section 4. Triggering Events to Transfer Property to the Fund. In the event the Grantor admits in writing its inability to pay its debts generally, or makes a general assignment for the benefit of creditors, or any proceeding is instituted by or against the Grantor seeking to adjudicate it as bankrupt or insolvent, or seeking dissolution, liquidation, winding-up, reorganization, arrangement, adjustment, protection, relief or

composition of it or its debts under any law relating to bankruptcy, insolvency, or reorganization or relief of debtors, or seeking the entry of an order for relief or the appointment of a receiver, trustee, custodian, or other similar official for Grantor or for any substantial part of its property, or the Grantor takes any action to authorize or effect any of the actions stated in this paragraph, then the NRC may:

(1) Declare that the financial assurance guaranteed by the self-guarantee agreement is immediately due and payable to the standby trust set up to protect the public health and safety and the environment, without diligence, presentment, demand, protest or any other notice of any kind, all of which are expressly waived by Grantor; and

(2) Exercise any and all of its other rights under applicable law.

The Grantor must notify the NRC, in writing, immediately following the occurrence of any event listed in this Section, and must include a description of the event, including major creditors, the amounts involved, and the actions taken to assure that the amount of funds guaranteed by the self-guarantee agreement for decommissioning will be transferred to the standby trust as soon as possible.

Section 5. Payments Constituting the Fund. Payments made to the Trustee for the Fund shall consist of cash, securities, or other liquid assets acceptable to the Trustee. The Fund is established initially as consisting of the property, which is acceptable to the Trustee, described in **Schedule B** attached hereto. Such property and any other property subsequently transferred to the Trustee are referred to as the "Fund," together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, IN TRUST, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount of, or adequacy of the Fund, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor established by NRC.

Section 6. Payment for Required Activities Specified in the Plan. The Trustee shall make payments from the Fund to the Grantor upon presentation to the Trustee of the following:

(a) A certificate duly executed by the Secretary of the Grantor attesting to the occurrence of the events, and in the form set forth in the attached Certificate of Events (**Attachment 1**), and

(b) A certificate attesting to the following conditions:

(1) that decommissioning is proceeding pursuant to an NRC-approved plan;

(2) that the funds withdrawn will be expended for activities undertaken pursuant to that plan; and

(3) that NRC has been given 30 days prior notice of the Massachusetts Institute of Technology's intent to withdraw funds from the trust fund.

No withdrawal from the Fund for a particular license can exceed 10 percent of the remaining funds available for that license unless NRC written approval is attached.

In addition, the Trustee shall make payments from the Fund as NRC shall direct, in writing, to provide for the payment of the costs of required activities covered by this Agreement. The Trustee shall reimburse the Grantor or other persons as specified by NRC from the Fund for expenditures for required activities in such amounts as NRC shall direct in writing. In addition, the Trustee shall refund to the Grantor such amounts as NRC specifies in writing. Upon refund, such funds shall no longer constitute part of the Fund as defined herein.

Section 7. Trust Management. The Trustee shall invest and reinvest the principal and income of the Fund and keep the Fund invested as a single fund, without distinction between principal and income, in accordance with general investment policies and guidelines which the Grantor shall communicate in writing to the Trustee from time to time. The Trustee shall discharge its duties with respect to the Fund solely in the interest of the beneficiary and with the care, skill, prudence and diligence under the circumstances then prevailing which persons of prudence, acting in a directed capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims, except that:

- (a) Securities or other obligations of the Grantor, or any other owner or operator of the facilities, or any of their affiliates as defined in the Investment Company Act of 1940, as amended (15 U.S.C. 80a-2(a)), shall not be acquired or held, unless they are securities or other obligations of the Federal or a State government;
- (b) The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the Federal government, and in obligations of the Federal government such as GNMA, FNMA, and FHLM bonds and certificates or State and Municipal bonds rated BBB or higher by Standard & Poor's or Baa or higher by Moody's Investment Services; and
- (c) For a reasonable time, not to exceed 60 days, the Trustee is authorized to hold uninvested cash, awaiting investment or distribution, without liability for the payment of interest thereon.

Section 8. Commingling and Investment. The Trustee is expressly authorized (except as limited by Schedule B):

- (a) To transfer from time to time any or all of the assets of the Fund to any common, commingled, or collective trust fund created by the Trustee in which the Fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and
- (b) To purchase shares in any investment company registered under the Investment Company Act of 1940 (15 U.S.C. 80a-1 et seq.), including one that may be created, managed, underwritten, or to which investment advice is rendered, or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

Section 9. Express Powers of Trustee. Without in any way limiting the powers and discretion conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

- (a) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale, as necessary to allow duly authorized withdrawals at the joint request of the Grantor and NRC or to reinvest in securities at the direction of the Grantor;

(b) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

(c) To register any securities held in the Fund in its own name, or in the name of a nominee, and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, to reinvest interest payments and funds from matured and redeemed instruments, to file proper forms concerning securities held in the Fund in a timely fashion with appropriate government agencies, or to deposit or arrange for the deposit of such securities in a qualified central depository even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee or such depository with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the U.S. Government, or any agency or instrumentality thereof, with a Federal Reserve Bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund;

(d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the Federal government; and

(e) To compromise or otherwise adjust all claims in favor of or against the Fund.

Section 10. Taxes and Expenses. All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements of the Trustee shall be paid from the Fund.

Section 11. Quarterly Valuation. After payment has been made into this standby trust fund, the Trustee shall on a quarterly basis, after the receipt of payment into the standby trust fund, furnish to the Grantor and to NRC a statement confirming the value of the Trust. Any securities in the Fund shall be valued at market value as of no more than 30 days before the quarterly report date of the Trust, or the most recent market value available based on the security type and standard valuation period for that vehicle. The failure of the Grantor to object in writing to the Trustee within 90 days after the statement has been furnished to the Grantor and NRC shall constitute a conclusively binding assent by the Grantor, barring the Grantor from asserting any claim or liability against the Trustee with respect to the matters disclosed in the statement.

Section 12. Advice of Counsel. The Trustee may from time to time consult with counsel, who may be counsel to the Grantor, with respect to any question arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting on the advice of counsel.

Section 13. Trustee Compensation. The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing with the Grantor. (See Schedule C.)

Section 14. Successor Trustee. Upon 90 days' notice to NRC and the Grantor, the Trustee may resign; upon 90 days' notice to NRC and the Trustee, the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor Trustee, the successor accepts the

appointment, the successor is ready to assume its duties as trustee, and NRC has agreed, in writing, that the successor is an appropriate Federal or State government agency or an entity that has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State agency. The successor Trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. When the resignation or replacement is effective, the Trustee shall assign, transfer, and pay over to the successor Trustee the funds and properties, if any, then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor Trustee or for instructions. The successor Trustee shall specify the date on which it assumes administration of the trust, in a writing sent to the Grantor, NRC, and the present Trustee, by certified mail 10 days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this section shall be paid as provided in Section 10.

Section 15. Instructions to the Trustee. All orders, requests, and instructions by the Grantor to the Trustee shall be in writing, signed by such persons as are signatories to this Agreement or such other designees as the Grantor may designate in the attached Exhibit A, as updated from time to time. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests, and instructions. If NRC issues orders, requests, or instructions to the Trustee, these shall be in writing, signed by NRC or its designees, and the Trustee shall act and shall be fully protected in acting in accordance with such orders, requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor or NRC hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instructions from the Grantor and/or NRC, except as provided for herein.

Section 16. Amendment of Agreement. This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee, and NRC, or by the Trustee and NRC if the Grantor ceases to exist. All amendments shall meet the relevant regulatory requirements of NRC.

Section 17. Irrevocability and Termination. Subject to the right of the parties to amend this Agreement as provided in Section 16, this trust shall be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee, and NRC, or by the Trustee and NRC if the Grantor ceases to exist. Upon termination of the trust, all remaining trust property, less final trust administration expenses, shall be delivered to the Grantor or its successor.

Section 18. Immunity and Indemnification. With the exception of acts of gross negligence or willful misconduct by the Trustee, the Trustee shall not incur personal liability with any act or omission, made in good faith, in the management and administration of this trust, or in carrying out any directions by the Grantor or NRC issued in accordance with this Agreement (the "Indemnified Acts"). The Trustee shall be indemnified and saved harmless by the Grantor or from the trust fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity for the Indemnified Acts, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

Section 19. This Agreement shall be administered, construed, and enforced according to the laws of the Commonwealth of Massachusetts.

Section 20. Interpretation and Severability. As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each section of this Agreement shall not affect the interpretation or the legal efficacy of this Agreement. If any part of this Agreement is invalid, it shall not affect the remaining provisions which will remain valid and enforceable.

IN WITNESS WHEREOF the parties have caused this Agreement to be executed by the respective officers duly authorized and the incorporate seals to be hereunto affixed and attested as of the date first written above.

{Signature page follows}

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

By: 

[Signature of representative of Grantor] Israel Ruiz
Executive Vice President and Treasurer

ATTEST:

[Title]

[Seal]

STATE STREET BANK AND TRUST COMPANY

One Lincoln Street, Boston, Massachusetts

By: 

[Signature of representative of Trustee]
Vice President

ATTEST:

[Title]

[Seal]


Senior Vice President

SCHEDULE A

Estimate of Grantor's Decommissioning Expenses

NRC Decommissioning Estimate 2014

A. License No. SNM-986

Based upon the applicable quantities of special nuclear materials stored at this facility, in accordance with 10 C.F.R. 70.25(d), MIT must guarantee the statutory minimum of \$1,125,000 for the proper disposal of these materials.

B. License No. R-37

<u>Duke Study (2002)</u>	<u>23,000,000.00</u>		<u>NRC Inflation Model 2014</u>	<u>Inflator</u>	<u>33,924,000.00</u>
Labor Portion	20,470,000.00	89%	Labor	1.42	29,200,000.
Burial portion	2,530,000.00	11%	Burial	1.87	4,724,000.

	2006	2014
LABOR	2.384	2.6516
	1.28	1.42
BURIAL	25.4385	33.4644
	1.42	1.87

SCHEDULE B

Description of Trust Property Acceptable to Trustee

Upon a Triggering Event (As Described in Section 4 of the Agreement)

Demand Deposits of Trustee

SCHEDULE C

Trustee Compensation

Trustee's fees shall be \$17,500 per year

until a Triggering Event (as described in Section 4 in the Agreement) occurs, upon which the parties agree to negotiate Trustee's fees in good faith, and amend this Schedule accordingly.

ATTACHMENT 1

Certificate of Events

State Street Bank and Trust Company
One Lincoln Street
Boston, MA 02111
Attention: Chris Sadler

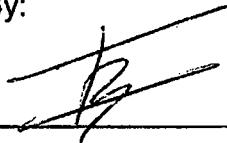
State Street Bank and Trust Company:

In accordance with the terms of the Standby Trust Agreement with you dated April 9, 2014, I, Israel Ruiz, Executive Vice President and Treasurer of Massachusetts Institute of Technology, hereby certify that the following events have occurred:

1. MIT is required to commence the decommissioning of its facility located at 138 Albany Street, Cambridge, Massachusetts (hereinafter called the decommissioning).
2. The plans and procedures for the commencement and conduct of the decommissioning have been approved by the United States Nuclear Regulatory Commission, or its successor, on (copy of approval attached).
3. The Board of Directors of MIT has adopted the attached resolution authorizing the commencement of the decommissioning.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

By:



Israel Ruiz

Executive Vice President and Treasurer

04/01/14

Date


EXHIBIT A

MASSACHUSETTS INSTITUTE OF TECHNOLOGY, (the "Grantor"), hereby certifies that the person whose name appears below is authorized to act on its behalf, including the authorization to give instructions, with respect to the Stand By Trust Agreement for the Decommissioning of the MIT Nuclear Reactor between the Grantor and STATE STREET BANK AND TRUST COMPANY, as Trustee, dated as of April 9, 2014. The Grantor further certifies that the true signature of such person is set forth below opposite his name, and that the Trustee may rely upon this certificate until such time as it receives another certificate bearing a later date.

NAME

SIGNATURE

Israel Ruiz



MASSACHUSETTS INSTITUTE OF TECHNOLOGY

BY: 

TITLE: Executive Vice President & Treasurer

DATE: 04/01/14

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

BY: 

TITLE: Deputy Executive Vice President

DATE: 17 April 2014