

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

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NO. 50-20

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

AMENDED FACILITY OPERATING LICENSE

Amendment No. 10
License No. R-37

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for license filed by by Massachusetts Institute of Technology (the licensee) complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. Construction of the facility has been substantially completed with Construction Permits Nos. CPRR-5 and CPRR-118, and the application, as amended, the provisions of the Act and the rules and regulations of the Commission;
 - C. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission;
 - D. There is reasonable assurance (i) that the activities authorized by this operating license can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the rules and regulations of the Commission;
 - E. The licensee is technically and financially qualified to engage in the activities authorized by this operating license in accordance with the rules and regulations of the Commission;
 - F. The Massachusetts Institute of Technology is a nonprofit educational institute and will use the facility for the conduct of educational research and development activities. The applicant is therefore exempt from the financial protection requirement of subsection 170a of the Act;



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- G. The Massachusetts Institute of Technology has executed an indemnity agreement which satisfies the requirements of 10 CFR Part 140;
 - H. The issuance of this operating license will not be inimical to the common defense and security or to the health and safety of the public; and
 - I. The receipt, possession, and use of byproduct and special nuclear material as authorized by this license will be in accordance with the Commission's regulations in 10 CFR Parts 30 and 70 (including Sections 30.33, 70.23 and 70.31).
2. Facility Operating License No. R-37 issued to the Massachusetts Institute of Technology is hereby amended in its entirety to read as follows:
- A. This license applies to the light-water cooled, heavy-water reflected tank-type nuclear reactor (herein "the facility" or "the reactor") which is owned by the Massachusetts Institute of Technology (herein "MIT") and located on MIT's campus in Cambridge, Massachusetts, and described in the application dated February 20, 1954, and subsequent amendments thereto, including the application dated November 18, 1970, and amendments thereto including the amendment dated June 2, 1975 (herein "the application").
 - B. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses MIT:
 - (1) Pursuant to Sections 104a. and c. of the Act and 10 CFR Part 50, "Licensing of Production and Utilization Facilities", to possess, use and operate the reactor as a utilization facility at the designated location on the MIT's campus in Cambridge, Massachusetts, in accordance with the procedures and limitations described in the application and in this license;
 - (2) Pursuant to the Act and 10 CFR Part 70, "Special Nuclear Material", to receive, possess and use in connection with operation of the reactor up to 45 kilograms of contained uranium 235 and 2 one-curie plutonium-beryllium neutron sources;
 - (3) Pursuant to the Act and 10 CFR Part 30, "Rules of General Applicability to Licensing of Byproduct Materials", to possess and use a 150-curie antimony-beryllium sealed neutron source in connection with operation of the reactor; and

(4) Pursuant to the Act and 10 CFR Parts 30 and 70, to possess, but not separate, such byproduct material and special nuclear material as may be produced by operation of the reactor.

C. This license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations in 10 CFR Chapter I: Part 20, Section 30.34 of Part 30, Sections 50.54 and 50.59 of Part 50 and Section 70.32 of Part 70; is subject to all applicable provisions of the Act and to the rules, regulations and orders of the Commission now or hereafter in effect, and is subject to the additional conditions specified or incorporated below:

(1) MIT is authorized to operate the reactor at steady state power levels up to 5 megawatts (thermal).

(2) Technical Specifications

The Technical Specifications contained in Appendix A (designated Change No. 13) are hereby incorporated in the license. The licensee shall operate the reactor in accordance with these Technical Specifications. No changes shall be made in the Technical Specifications unless authorized by the Commission as provided in Section 50.59 of 10 CFR Part 50.

D. This amended license is effective as of its date of issuance and shall expire at midnight, May 7, 1996.

FOR THE NUCLEAR REGULATORY COMMISSION

Karl R. Goller

Karl R. Goller, Assistant Director
for Operating Reactors
Division of Reactor Licensing

Attachment:
Technical Specifications
(Change No. 13)

Date of Issuance: JUL 23 1975