MIT NUCLEAR REACTOR LABORATORY

AN MIT INTERDEPARTMENTAL CENTER

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August 26, 2010

U.S. Nuclear Regulatory Commission
Attn: Document Control Room
Washington, DC 20555

Re: Massachusetts Institute of Technology; License No. R-37; Docket No. 50-20; Continued Response to RAI (TAC No. MA 6084) dated 7/16/10

Dear Sir or Madam:

Enclosed are revised pages for TS No. 3.3.5 and No. 4.2(4). The changes are:

- TS 3.3.5 – Third sentence of last paragraph of basis is modified to read, "Accordingly, either a daily analysis is done for tritium or an in-line tritium monitor is in service if secondary coolant is supplied to…"

- TS 4.2(4) – The first sentence is modified to read, "…and each time before startup of the reactor if the reactor has been in a secured condition or if the instrument or channel has been repaired or de-energized."

Please contact the undersigned if there are any questions.

Sincerely,

John A. Bernard, Ph.D, PE, CHP
Director of Reactor Operations

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

Executed on 8.26.10 / _____
Date / Signature

cc: William B. Kennedy
Project Manager
Research and Test Reactors Branch A
U.S. Nuclear Regulatory Commission

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beta particle. Accordingly, either a daily analysis is done for tritium or an in-line tritium monitor is in service if secondary coolant is supplied to a D_2O heat exchanger (main or cleanup). If tritium levels exceed that permitted by Specification 3.7.2.2, corrective action is to be in accordance with that specification. In addition, if other detectable activity in excess of 10 CFR 20 limits is identified, the affected heat exchanger will be identified and removed from service.

reactor if the reactor has been in a secured condition or if the instrument or channel has been repaired or de-energized. Calibration of these instruments or channels (except those such as scram pushbuttons that do not require calibration) shall be done at least annually.

5. Channel Tests: Channel tests of the instruments or channels listed in Table 4.2-1 shall be performed if the channel or instrument has been modified or repaired.

6. The following instruments shall be calibrated and trip points verified when initially installed, any time a significant change in indication is noted, and at least annually:

   a) Period

   b) Neutron Flux Level

   c) Primary Coolant Outlet Temperature

   d) Core Tank Level

   e) Reflector Tank Level

   f) Primary Coolant Flow

   g) D_2O Reflector Flow

   h) Shield Coolant Flow

   i) Period Channel Level Signal Off-Scale

7. Thermal Power: The signals used to compute thermal power shall be calibrated at least annually.