November 30, 2007

Dr. John A. Bernard, Director
Nuclear Reactor Laboratory
Massachusetts Institute of Technology
138 Albany Street
Cambridge, MA 02139-4296

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION, RE: LICENSE RENEWAL (TAC NO. MA6084)

Dear Dr. Bernard:

We are continuing our review of your July 8, 1999 application, and associated supplements, for the renewal of the Massachusetts Institute of Technology's (MIT) Research Reactor Amended Facility Operating License No. R-37. MIT's January 29, 2004, response to an NRC request for additional information (RAI) made the following statements:

> Response 33.a) "Process uncertainty is addressed by selecting initial conditions that correspond to the LSSS instead of the normal operational values or even the scram values. This was not done originally for all safety analyses but, as a result of other questions in this series, it has now been done."
>
> Response 78. "All transient calculations in Chapter 13 (loss of primary flow, ramp reactivity insertion, step reactivity insertion) have been redone using primary coolant flow of 1800 gpm, which is the LSSS."

Please provide copies of the following:

1) Each of the redone Chapter 13 calculations and supporting documentation.

2) The dose calculations for the MHA analysis, including the dispersion analysis and supporting documentation.

In accordance with 10 CFR 50.30(b), your response must be executed in a signed original under oath or affirmation.

Sincerely,

/RA/

Marvin Mendonca, Senior Project Manager
Research and Test Reactors Branch B
Division of Policy and Rulemaking
Office of Nuclear Reactor Regulation

Docket No. 50-20
cc: See next page

cc:

City Manager
City Hall
Cambridge, MA 02139

Department of Environmental Protection
One Winter Street
Boston, MA 02108

Director
Radiation Control Program
Department of Public Health
90 Washington Street
Dorchester, MA 02121

Nuclear Preparedness Manager
Massachusetts Emergency Management Agency
40 Worcester Road
Framingham, MA 01702-5399

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Gainesville, FL 32611

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