

September 7, 1995

Dr. John A. Bernard, Jr.
Director of Reactor Operations
Massachusetts Institute of Technology
Research Reactor
138 Albany Street
Cambridge, MA 02139

SUBJECT: NRC INSPECTION NO. 50-20/95-02

Dear Dr. Bernard:

This letter refers to an inspection of the routine reactor operations program conducted on July 5-7, 1995, and a follow-up inspection on July 24-26, 1995 of corrective actions related to the reportable event that occurred on July 19, 1995 involving power operations with one control rod not withdrawn. The inspection was conducted by Mr. Thomas Dragoun of this office of activities authorized by NRC License No. R-37 at the MIT Research Reactor, Cambridge, Massachusetts. Discussions of our findings were held by Mr. Dragoun with you and other members of your staff at the conclusion of each portion of the inspection.

Areas examined in this inspection are important to public health and safety, and are described in the NRC Region I Inspection Report which is enclosed with this letter. Within these areas, the inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observations by the inspector.

The complexity of factors contributing to the inadvertent operation of the reactor with one control rod inserted may indicate the need for an independent peer review of your programs.

Subsequent to this inspection, we received your letter dated August 18, 1995, regarding Reportable Occurrence 50-20/1995-5, "Malfunction of a Shim Blade Drive Mechanism". We understand that the shim blade drive mechanism involved in the July 19 event was replaced with a spare drive. On August 9, 1995, the spare drive slipped and resulted in reactor operations with the shim blade inserted 4.25 inches relative to the banked position. In telephone conversations with regional personnel, you stated that a safety analysis for operation with one blade partially inserted will be completed. This matter will be reviewed in a future inspection.

Within the scope of this review, no safety concerns were identified and no response to this letter is required.

OFFICIAL RECORD COPY

IE 06 |

190061
9509180205 950907
PDR ADDCK 05000020
Q PDR

Dr. J. A. Bernard, Jr.

2

Your cooperation with us is appreciated.

Sincerely,

Original Signed By:
Robert J. Burns

JH

James H. Joyner, Chief
Facilities Radiological Safety
and Safeguards Branch
Division of Radiation Safety
and Safeguards

Docket No. 50-20

Enclosure: NRC Region I Inspection Report No. 50-20/95-02

cc w/encl:

Dr. O. K. Harling, Director of the Reactor Laboratory

Dr. William Vernetson, TRTR

Dr. Robert McCunney, M.D., Director, Environmental Medical Service
Commonwealth of Massachusetts

Dr. J. A. Bernard, Jr.

3

Distribution w/encl:
Region I Docket Room (with concurrences)
S. Weiss, NRR (OWFN 10D21)
W. Dean, OEDO
D. Screnci, PAO (2)
J. Wiggins, DRS
PUBLIC
Nuclear Safety Information Center (NSIC)

DOCUMENT NAME: G:\frssb.grp\mit95.02

To receive a copy of this document, indicate in the box: "C" = Copy without attachment/enclosure "E" = Copy with attachment/enclosure
"N" = No copy

OFFICE	RI/DRSS	<input checked="" type="checkbox"/>	RI/DRSS	<input type="checkbox"/>	RI/DRSS	<input type="checkbox"/>
NAME	TDragoun <i>TD</i>		RBores <i>RB</i>		JJoyner <i>JJ</i>	
DATE	09/7/95		09/07/95		09/07/95	

OFFICIAL RECORD COPY

*Impact from
J. Wiggins
LJB*