



NUCLEAR REACTOR LABORATORY
AN INTERDEPARTMENTAL CENTER OF
MASSACHUSETTS INSTITUTE OF TECHNOLOGY



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J. A. BERNARD, JR.
Director of Reactor Operations

September 22, 1995

U.S. Nuclear Regulatory Commission
Washington, D.C. 20555
Attn: Document Control Desk

Subject: Corrective Action for Reportable Occurrence #50-20/1995-4, Operation with
One Shim Blade Fully Inserted

Gentlemen:

The purpose of this letter is to inform you of the status of corrective actions for reportable occurrence #50-20/1995-4. These were listed on page four of the report and are repeated here for your convenience:

- 1) Development of a method for better communications among all operators, especially regarding abnormal situations such as that which occurred on 07/11/95.
- 2) Management action to ensure that all personnel follow facility procedures.
- 3) Determination of the minimum current required to pick up each blade.
- 4) Development of a checklist to guide operators when the reactor is not critical within 0.5" of the ECP.
- 5) Development of a special procedure for verification that a blade is connected to its magnet when the "blade in" indication is out-of-commission.
- 6) Management action regarding resolution of electronic equipment problems.

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The status of the above items is as follows:

Item #1 — Action complete. A special log has been established for the purpose of ensuring that all licensed personnel are made aware of any abnormal situation prior to assuming shift responsibilities. This special log is in addition to existing requirements such as the one that on-coming personnel review the log book.

Item #2 — This item has been discussed with all personnel.

Item #3 — This was done on 07/25/95 as reported in paragraph #7 of the original report.

Items #4 and #5 — Checklists and/or a procedure have been developed to address each of these topics. These are in effect at present and will be formally issued on or before 09/30/95.

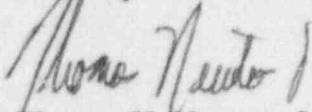
Item #6 — The Charles Stark Draper Laboratory (CSDL) has been retained for this purpose. CSDL will do the following:

- a) Prepare 'as-built' drawings from our existing circuit boards.
- b) Compare these drawings to the existing MITR drawings and resolve any differences.
- c) Identify commercially-available components that are functionally equivalent to those used in the existing circuit boards. (The existing boards were designed in the early 1970s and spare components are not available.)
- d) Build replacement circuit boards.
- e) Test these new circuit boards to ascertain that they are in fact the functional equivalent of the existing ones.

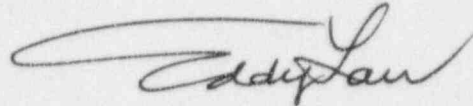
The CSDL team that will perform this work for the MITR consists of two engineers and one technician. The estimated completion time is three months, but it could be longer. In the interim, CSDL will be available to assist with servicing of the current circuitry. (Note: We informed NRC verbally some time ago that a new safety system was being procured.

That action is on-going but we do not expect to have the new system on-line for 6-9 months.)

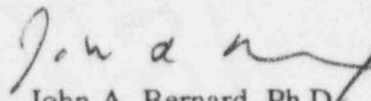
Sincerely,



Thomas H. Newton, Jr.
Assistant Superintendent for
for Reactor Engineering
MIT Research Reactor



Edward S. Lau
Assistant Superintendent for
Reactor Operations
MIT Research Reactor



John A. Bernard, Ph.D.
Director of Reactor Operations
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JAB/CRM

cc: USNRC - Senior Project Manager,
NRR/ONDD

USNRC - Region I - Project Scientist,
Effluents Radiation Protection Section (ERPS)
FRSSB/DRSS