



NUCLEAR REACTOR LABORATORY
MASSACHUSETTS INSTITUTE OF TECHNOLOGY



O. K. HARLING
Director

138 Albany Street Cambridge, Mass. 02139
(617) 253- 4202

L. CLARK, JR.
Director of Reactor Operations

September 27, 1979

Mr. Boyce H. Grier, Director
Region #1
U.S. Nuclear Regulatory Commission
631 Park Avenue
King of Prussia, Penn. 19406

Subject: Immediate Action Letter 79-14, Docket No. 50-20

Dear Mr. Grier:

This letter is in reply to your Immediate Action Letter 79-14, dated September 7, 1979, and constitutes the written report required by that letter.

As described later in this letter, the Nuclear Reactor Laboratory has augmented its already substantial radiation protection program. The principle features of the existing program have been described in a number of applications submitted by MIT for byproduct, source and special nuclear material licenses and, with direct applicability to the MIT Research Reactor, in the "Safety Analysis Report for the MIT Research Reactor (MITR-II)", Report No. MITNE-115, October 22, 1970, as amended. The existing program and earlier variations of it have been in effect for over 20 years, and an excellent overall record has been achieved.

We do not believe that the incident on August 30, 1979 warrants the additional retraining and record keeping programs ordered by NRC. The basis for this belief are the circumstances of the incident, specifically only one individual was in violation and the potential hazard was small. A program of the type ordered by NRC for all individuals having unescorted access is considered inappropriate. We believe that the negative impact of documenting each minor violation by every individual who may commit one and treating them all like major problems will seriously detract from the more important aspects of the overall protection program, as well as other essential activities at the MITR. We agree that a program of the type ordered by NRC should be implemented when in the judgement of the reactor management the severity of the violation and/or the attitude of the rule violator justifies this approach.

As indicated above, only one individual was in violation. Failure to use a lab coat on the reactor top could conceivably have resulted in low level contamination of the individual's clothing, although the area is

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generally kept clean enough so that such contamination would not be a hazard, even if carried outside the restricted area or the site. When contamination of the reactor top does occur, the area is restricted until it is decontaminated, and so there is only a very small probability that major contamination would be brought out of the reactor on personal clothing and even less that it would leave the site. Personnel monitors would detect such contamination.

Investigation of the incident reveals that extenuating circumstances existed with regard to the failure to respond immediately to instructions from the control room, i.e. the violation had already been committed by the time it was detected, the individual was familiar with the means for contamination monitoring on exiting the reactor, and he was aware of the general state of cleanliness on the reactor top. He did not feel that he was increasing the risk of contamination by remaining on the reactor top a minute or two longer. He has told us he was not actually working on or touching any equipment but was showing a mechanic what equipment needed work. We agree that the extenuating circumstances do not excuse the failure to comply immediately, but contend that the corrective action should be limited to the one individual involved.

Consequently it is requested that NRC, Region #1, withdraw the broad requirements contained in IAL 79-14 and that MIT be authorized to limit its corrective action to the case in question and to future similar cases.

Meanwhile, as a result of the incident which occurred during the NRC inspection on August 29-31, 1979 and in response to IAL 79-14 there are now incorporated into the protection program additional procedures for the purpose of insuring a continuing knowledge of, and adherence to, all applicable radiation protection procedures. New procedure 2.6.7 assigns responsibility and provides a documented method of admonishing and re-instructing violators, recording the violation, evaluating the nature of appropriate retraining, and suspending authorization for unescorted access to the restricted area for a suitable period of time.

Actions of the type specified in the new procedure were taken with respect to the individual found to be violating a radiation protection rule on August 30, 1979. His authorization for unescorted access was suspended from August 30th until September 12th, during which period he was retrained in the existing procedures.

A retraining program for all those authorized to have unescorted access has consisted of the following:

- 1) Pertinent documents concerning radiation protection and required procedures have been re-issued to such authorized personnel, emphasizing the need for adherence and the consequences of violations and requiring a signed acknowledgement and agreement to conform, and (2) a letter has been sent by the Director of Reactor Operations to all such personnel emphasizing the program and issuing a copy of new procedure 2.6.7.

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In the future, those people authorized to have unescorted access to the restricted area will be periodically retrained in a manner that reemphasizes the importance of the requirements, procedures and precautions contained in the "MIT Required Procedures for Radiation Protection" and other applicable documents. The retraining will re-acquaint such individuals with the principle features of new procedure 2.6.7.

Very truly yours,

Lincoln Clark
for Otto K. Harling

OKH/pk

cc: L. Clark
MITRSC
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