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March 12, 1993

Document Control Desk  
US Nuclear Regulatory Commission  
Washington D.C. 20555

Subject: Reportable Occurrence at The Ohio State University Research  
Reactor, License R-75, Docket 50-150

This written report is being submitted as required by Section 6.6.2(2)(C) of the Technical Specifications for The Ohio State University Research Reactor. Included in the discussion are a summary of the event, its causes, and corrective and other actions taken or planned.

After shutting down the reactor by a routine, planned, manual scram at 4:19 PM on Friday, March 5, 1993, the senior reactor operator noted that Shim Safety Rod #1 still had magnet current applied and it had not dropped to the bottom. The operator manually drove in the rod and consulted with another senior reactor operator who confirmed that the slow scram system did not remove magnet power from Rod #1 as designed. This was pointed out to the individual who designed the system. He immediately began trouble-shooting the system and also notified the Associate Director of the NRL. During this and subsequent conversations with the Reactor Staff and after consulting the Technical Specifications, the Associate Director decided this was reportable as defined in Section 6.5.2(3).

From our investigation into the cause of the occurrence we concluded this happened due to an electrical short between the engage limit switch and magnet coil assembly. Because the magnet control amplifier did not electrically float, a comparator in the circuit failed when 120VAC shorted through the system. This apparently kept the slow scram relay from deenergizing.

Actions completed and planned to meet Technical Specification 6.5.2 and 6.6.2 requirements include:

1. Telephone communication of the event to NRC Region III was completed on March 8, 1993 which was the next working day after the occurrence. (NRC Headquarters was also notified by telephone) The Director of the Reactor was also notified.
2. The Associate Director of the Reactor agreed verbally and in a written memo to NRC Region III that the reactor would not be restarted until NRC review of the occurrence was completed.

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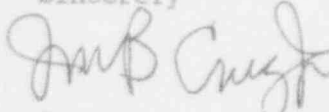
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3. NRC Region III sent an inspector to the site for review on March 9, 1993.
4. The Reactor Staff developed both short and long range plans to address the problem. These were submitted to NRC Region III on March 11, 1993 for review. These have also been forwarded to the Reactor Director and will be reviewed by the Reactor Operations Committee. (copy attached)

If you have any questions on the content of this letter please contact Mr. Richard Myser of The Ohio State University Research Reactor at 614-292-6755.

Sincerely



Jose B. Cruz, Jr., Director

Enclosure

cc. with enclosure

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