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Research Reactor Facility

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June 29, 1981

U.S. NUCLEAR REGULATORY COMMISSION
MAIL ROOM

Director of Licensing
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Reference: Docket 50-186
University of Missouri
License R-103

Subject: Report as required by MURR Technical Specification 6.1.h.2



Description

On June 1, 1981 while performing a routine semi-annual compliance check on the pool coolant flow instrument 921B, it was found the low flow scram set point was below the technical specification limit of 425 gpm. Operating the reactor with the pool low flow scram set below 425 gpm is a deviation from MURR Technical Specification 3.3(a).

Analysis

The reactor was in the shut down mode with all rods fully inserted. To perform the compliance test, a pressure is externally connected to the transmitter to simulate flow conditions and to check the scram set point. The instrument was found to be properly calibrated; however, the pool low flow 921B scram tripped at 411 gpm which is below the Technical Specification limit of 425 gpm. The scram trip unit for pool flow 921B was replaced with a calibrated spare unit. The new trip unit was set and verified to be in compliance with Technical Specification 3.3(a). The removed unit was bench tested for two weeks of continuous operation with no evidence of drift or instrument anomalies.

The pool coolant flow scram 921A and the differential pressure across reflector scrams were operable and within technical specification limits; either one would have scrambled the reactor in a pool coolant low flow situation.



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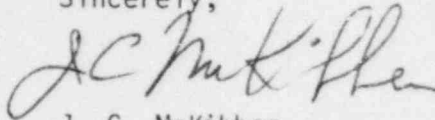
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Corrective Action

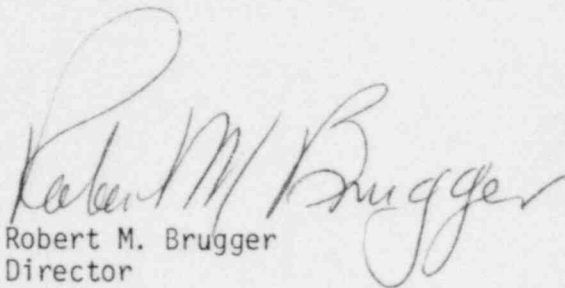
The trip unit was replaced and the 921B compliance check performed.

Sincerely,



J. C. McKibben
Reactor Manager

Endorsement:
Reviewed and Approved



Robert M. Brugger
Director

JCMK:vs

cc: U. S. Nuclear Regulatory Commission
c/o Document Management Branch
James Keppler, Director
Regulatory Operations - Region III
Reactor Advisory Committee
Reactor Safety Committee