



Research Reactor Center

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July 23, 2003

Mr. Alexander Adams, Jr.
U.S. Nuclear Regulatory Commission
Mail Stop O12-G13
Washington, DC 20555-0001

SUBJECT: Monthly Operations Summary

Enclosed is a copy of MURR's Monthly Operations Summary for June 2003. If you have any questions, please contact me at (573) 882-5276.

Sincerely,

Leslie Foyto
Interim Reactor Manager

LM/lmcg
cc. Craig Bassett
Enclosure

IE24

*UNIVERSITY OF MISSOURI
RESEARCH REACTOR*

OPERATIONS MONTHLY SUMMARY

June, 2003

*Prepared by:
Operations Staff*

INTRODUCTION

The reactor operated continuously in June with the following exceptions: 5 shutdowns for scheduled maintenance and refueling; 4 unscheduled shutdowns. One Licensee Event Report, No. 03-02, was submitted within the Technical Specification required thirty-day time requirement.

MAINTENANCE ACTIVITIES

- 6/2/03 Refueled - removed core 03-24, loaded core 03-25.
 Replaced RF-2 (containment recirc fan) motor.
- 6/9/03 Refueled - removed core 03-25, loaded core 03-26.
 Completed Annual Emergency Drill.
 Replaced 2PS3 (Process Instrumentation power supply).
- 6/13/03 Refueled - removed core 03-26, loaded core 03-27.
 Replaced Regulating Blade Position Indication Encoder.
 Repaired broken wire for Outer Airlock Door motor braking solenoid.
- 6/16/03 Refueled - removed core 03-27, loaded core 03-28.
- 6/21/03 Refueled - removed core 03-28, loaded core 03-29.

6/23/03 Refueled - removed core 03-29, loaded core 03-30.

Replaced Valve R-2 reach rod.

Loaded new pool de-ionization bed 'V'.

6/30/03 Refueled - removed core 03-30, loaded core 03-31.

Completed the biennial change out of Control Blade 'A' Offset Mechanism.

Replaced 2PS4 (Process Instrumentation power supply).

Replaced broken pin in Door 101 clutch mechanism.

UNSCHEDULED SHUTDOWNS

<u>Date</u>	<u>No.</u>	<u>Type</u>	<u>Cause</u>
6/9/03	1163	RRI	Process Instrumentation power supply failure

On June 9, an automatic Rod Run-In was initiated when the Process Instrumentation power supply (2PS3) failed. Investigation revealed that the power supply unit had exceeded expected life. Replaced 2PS3 and Process Instrumentation was tested satisfactorily on pre-startup checks. The reactor was subsequently refueled and returned to operation.

<u>Date</u>	<u>No.</u>	<u>Type</u>	<u>Cause</u>
6/13/03	1164	Scram	Airlock Door failure

On June 13, a Reactor Scram was manually initiated when the Outer Airlock Door gasket did not inflate. The Master Control Switch was placed to the OFF position to secure the reactor. Investigation revealed that while the Outer Airlock Door gasket did not inflate, the Inner Airlock Door gasket remained inflated so Containment Integrity was not lost. Troubleshooting found a broken wire to the solenoid that controls the Outer Airlock Door brake. This allowed the brake to be engaged for the full travel of the door causing it to not fully shut. The wire was replaced and the door tested sat. The reactor was subsequently refueled and returned to operation.

<u>Date</u>	<u>No.</u>	<u>Type</u>	<u>Cause</u>
6/21/03	1165	Scram	Airlock Door failure

On June 21, the Inner Airlock Door failed to seat properly resulting in a loss of Containment Integrity as defined by Technical Specification 3.5.a (LER 03-02). A Reactor Scram was manually initiated and the Master Control Switch was placed to the OFF position to secure the reactor. It was determined that the Inner Airlock Door brake setting had changed preventing the door from closing fully. The brake tension was loosened and a locking nut installed to prevent further problems. The door was cycled satisfactorily. The reactor was subsequently refueled and returned to operation. Licensee Event Report No. 03-02, providing a description of this event and the corrective actions taken, was submitted within the Technical Specification required thirty-day time requirement.

<u>Date</u>	<u>No.</u>	<u>Type</u>	<u>Cause</u>
6/30/03	1165	RRI	Blade 'A' Not In Contact With Magnet

On June 30, a Rod Not In Contact With Magnet Rod Run-In was automatically initiated when Blade 'A' anvil separated from its magnet. The Blade 'A' Full In Light was lit so the Console Watch initiated a manual scram and the reactor was shut down. Investigation revealed that the magnet was off center with the anvil. The alignment was adjusted as well as the Drive Full In switch to ensure proper engagement of the magnet with the anvil after completion of the biennial change out of the offset mechanism. The drive was retested as part of startup checks. The reactor was subsequently refueled and returned to operation.

LICENSEE EVENT REPORT

<u>Date</u>	<u>No.</u>
6/21/03	03-02

On June 21, a deviation from Technical Specification 3.5.a occurred when the Inner Airlock Door failed to seat properly resulting in a loss of Containment Integrity. A Reactor Scram was manually initiated and the Master Control Switch was placed to the OFF position to secure the reactor. It was determined that the Inner Airlock Door brake setting had changed preventing the door from closing fully. The brake tension was loosened and a locking nut installed to prevent further problems. The reactor was subsequently refueled and returned to operation. Detailed analysis of the events and corrective actions are included in Licensee Event Report 03-02.

OPERATION SUMMARY FOR MONTH OF
University of Missouri Research Reactor Center (MURR)

Jun-03

HOURS OPERATED THIS PERIOD

627.19

TOTAL HOURS OPERATED, REACTOR

251,254.27

HOURS OPERATED AT FULL POWER, THIS PERIOD

622.32

TOTAL HOURS AT FULL POWER, REACTOR

247,963.28

INTEGRATED POWER THIS PERIOD

259.50

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TOTAL INTEGRATED POWER, REACTOR

97,517.07

MWD

Submitted by: Das K
MWD Custodian/Reactor Physicist

Date: 7/7/03