



Research Reactor Center

University of Missouri-Columbia

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October 12, 2004

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

**SUBJECT:** University of Missouri Research Reactor Facility  
Docket No. 50-186  
Monthly Operations Summary

Dear Mr. Adams:

Enclosed is a copy of MURR's Monthly Operations Summary for September 2004. If you have any questions, please contact me at (573) 882-5276.

Sincerely,

Leslie Foyto  
Reactor Manager

LM/sm  
cc. Craig Bassett  
Enclosure: September Operation Summary - 4 pages

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*UNIVERSITY OF MISSOURI  
RESEARCH REACTOR*

*OPERATIONS MONTHLY SUMMARY*

*September 2004*

*Prepared by:  
Operations Staff*

## INTRODUCTION

The reactor operated continuously in September with the following exceptions: 4 shutdowns for scheduled maintenance and refueling; 1 unscheduled shutdown.

## MAINTENANCE ACTIVITIES

- 9/6/04            Refueled - removed core 04-41, loaded core 04-42.  
Performed backflush on the Pool Coolant System Heat Exchanger.
- 9/13/04           Refueled - removed core 04-42, loaded core 04-43.  
Completed Modification Record 88-11, Add. 1; "Upgrade of  
Uninterruptible Power Supply Alternate Source."
- 9/20/04           Refueled - removed core 04-43, loaded core 04-44.  
Completed Modification Record 04-4; "Reactor Control Console  
Upgrade."  
Replaced isolator on Nuclear Instrumentation Signal Processor  
Drawer No. 1.
- 9/25/04           Refueled - removed core 04-44, loaded core 04-45.  
Replaced cabling and fission chamber detector for Nuclear  
Instrumentation Signal Processor Drawer No. 1.
- 9/27/04           Refueled - removed core 04-45, loaded core 04-46.  
Completed CP-29 (Calibration of the NMC RAK Stack Monitor)

## UNSCHEDULED SHUTDOWNS

<u>Date</u>	<u>No.</u>	<u>Type</u>	<u>Cause</u>
9/25/04	1174	Scram	Instrumentation Signal Processor Drawer No. 1 Detector Cable failure

On September 25, a reactor scram was automatically initiated when meter indications on Nuclear Instrumentation (NI) Signal Processor Drawer No. 1 pegged high, thus causing a reactor safety system trip. Troubleshooting efforts revealed a breakdown of the signal cabling insulation near the fission chamber detector located in the reactor pool. This type of failure is typical of NI detector cabling that has been installed over two years. The fission detector and its associated cabling were replaced and the drawer was verified to be operable. The reactor was refueled and subsequently returned to 10 MW operation.

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

Sep-04

HOURS OPERATED THIS PERIOD

645.97

TOTAL HOURS OPERATED, REACTOR

261,213.05

HOURS OPERATED AT FULL POWER, THIS PERIOD

644.10

TOTAL HOURS AT FULL POWER, REACTOR

257,879.42

INTEGRATED POWER THIS PERIOD

268.46

MWD

TOTAL INTEGRATED POWER, REACTOR

101,650.69

MWD

Submitted by:

Das K

MWD Custodian/Reactor Physicist

Date:

10/6/04