



Research Reactor Center

University of Missouri-Columbia

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September 24, 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 August 2004. If you have any questions, please contact me at (573) 882-5276.

Sincerely,

Leslie Foyto  
Reactor Manager

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

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*UNIVERSITY OF MISSOURI  
RESEARCH REACTOR*

*OPERATIONS MONTHLY SUMMARY*

*August 2004*

*Prepared by:  
Operations Staff*

## INTRODUCTION

The reactor operated continuously in August with the following exceptions: 5 shutdowns for scheduled maintenance and refueling; 1 unscheduled shutdown.

## MAINTENANCE ACTIVITIES

- 8/2/04            Refueled - removed core 04-35, loaded core 04-36.  
Installed the new 20 element X fuel storage basket frame and Beryllium ring storage plate. Reinstalled the 20 element X fuel storage basket.
- 8/4/04            Replaced the sightglass on the Secondary Coolant System Acid Addition Day Tank.
- 8/9/04            Refueled - removed core 04-36, loaded core 04-37.
- 8/16/04           Refueled - removed core 04-37, loaded core 04-38.
- 8/23/04           Refueled - removed core 04-38, loaded core 04-39.
- 8/28/04           Refueled - removed core 04-39, loaded core 04-40.
- 8/30/04           Refueled - removed core 04-40, loaded core 04-41.  
NRC inspector arrived at MURR for annual Operations' inspection.  
Spanned the Reflector Differential Pressure Transmitter 917.
- 8/31/04           Physically adjusted Nuclear Instrument Channel 6 drywell.

## UNSCHEDULED SHUTDOWNS

<u>Date</u>	<u>No.</u>	<u>Type</u>	<u>Cause</u>
8/28/04	1173	Scram	Pool Reflector Low Differential Pressure Scram

On August 28, a reactor scram was automatically initiated when pool reflector differential pressure decreased below Pressure Transmitter 917 (PT-917) scram set point. PT-917 monitors differential pressure across the reactor pool reflector region, thus serving as a back-up to the pool low flow scram. The low differential pressure condition was created when multiple material irradiation sample holders were removed from the graphite reflector region at the same time during a sample handling evolution. The reactor was subsequently refueled and returned to 10 MW operation. On August 30, during the next scheduled maintenance day, a calibration check of PT-917 was performed in accordance with Compliance Procedure No. 5. Data collected indicated that detector calibration was just out-of-spec low in the normal operating band – high and low calibration points were in specification (Note: These are calibration data points and not Technical Specification Limiting Conditions of Operation). After verifying that the scram set point was in specification, the detector was spanned and all calibration data points were in band. This detector does not have a history of any drifting problems but it will be closely monitored.

<b>OPERATION SUMMARY FOR MONTH OF</b> University of Missouri Research Reactor Center (MURR)	<b>Aug-04</b>
HOURS OPERATED THIS PERIOD	<b>672.55</b>
TOTAL HOURS OPERATED, REACTOR	<b>260,567.08</b>
HOURS OPERATED AT FULL POWER, THIS PERIOD	<b>669.83</b>
TOTAL HOURS AT FULL POWER, REACTOR	<b>257,235.32</b>
INTEGRATED POWER THIS PERIOD	<b>279.36</b> MWD
TOTAL INTEGRATED POWER, REACTOR	<b>101,382.23</b> MWD

Submitted by: Das K  
MWD Custodian/Reactor Physicist

Date: Sept 20, 2004