



Research Reactor Center

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January 10, 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 December, 2002. If you have any questions, please contact me at (573) 882-5264.

Sincerely,

Paul S. Hobbs, PE  
Reactor Manager

PSH/lmcg  
cc. Craig Bassett  
Enclosure

IE24

UNIVERSITY OF MISSOURI  
RESEARCH REACTOR

OPERATIONS MONTHLY SUMMARY

DECEMBER 2002

Prepared by:  
Operations Staff

## INTRODUCTION

The reactor operated continuously in December with the following exceptions: five shutdowns for scheduled maintenance and refueling; one unscheduled shutdown.

## MAINTENANCE ACTIVITIES

12/2/02      Refueled - removed core 02-62, loaded core 02-63.

12/9/02      Refueled - removed core 02-63, loaded core 02-64.

12/16/02     Refueled - removed core 02-64, loaded core 02-65.

12/23/02     Refueled - removed core 02-65, loaded core 02-66.

12/30/02     Refueled - removed core 02-66, loaded core 02-67.

Completed the biennial change out of Control Blade "D" Offset Mechanism.

## UNSCHEDULED SHUTDOWNS

<u>Date</u>	<u>No.</u>	<u>Type</u>	<u>Cause</u>
12/16/02	1156	Scram	Calculated reactivity in excess of Technical Specification limit.

On December 16, a manual Reactor Scram was initiated during a reactor startup to perform RTP-17B (Flux Trap Loads Reactivity Worth) when the measured reactivity of the flux trap sample holder and samples appeared to be in excess of the limit in Technical Specification 3.1.h.

The flux trap sample loading was verified to be correct and RTP-11D (Differential Control Rod Reactivity Worth) was performed on Blade "B" to verify its worth since it was the blade being used to determine the flux trap reactivity. RTP-11D revealed a change in Blade "B" worth since its installation as a new blade in May of 2002. This change is due to normal burn up of the control blade while in operation.

The reactivity worth of the flux trap was re-measured using the corrected Blade "B" rod worth and it was determined that the flux trap reactivity was well within Technical Specification limits.

The flux trap was reloaded to a lower reactivity value and RTP-17B was again performed yielding expected results. The reactor was subsequently returned to full power operation.

Dec

<b>OPERATION SUMMARY FOR MONTH OF</b> University of Missouri Research Reactor Center (MURR)	<b>Dec-02</b>
HOURS OPERATED THIS PERIOD	<b>665.12</b>
TOTAL HOURS OPERATED, REACTOR	<b>247,357.58</b>
HOURS OPERATED AT FULL POWER, THIS PERIOD	<b>658.11</b>
TOTAL HOURS AT FULL POWER, REACTOR	<b>244,084.58</b>
INTEGRATED POWER THIS PERIOD	<b>274.35</b> MWD
TOTAL INTEGRATED POWER, REACTOR	<b>95,900.25</b> MWD

Submitted by. Das K  
MWD Custodian/Reactor Physicist

Date 1/2/03