

| First | Second |
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| RA | RC |
| DRA | EIC |
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FILE

UNIVERSITY OF MISSOURI RESEARCH REACTOR

OPERATIONS MONTHLY SUMMARY

June 1995

Prepared by:
Operations Staff

JUL 31 1995

June 1995

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

On June 15, a spurious pool loop low flow scram occurred while reactor power was being reduced by manual rod run-in. The power reduction was initiated as per Standard Operating Procedure to allow entry into the mechanical equipment room to perform a secondary system valve manipulation. The scram appeared to coincide with the simultaneous starting of a secondary pump and the automatic closing of the secondary blowdown valve. There was no indication of any actual reduction of pool flow. It appears that the secondary system pressure surge was transmitted through the new pool plate type heat exchanger and caused a spurious spike on the pool flow 'B' transmitter, an older model which had no electronic dampening. On June 19, the older model 'B' flow transmitter was replaced with a new model which has dampening, and the spurious signal problems have not reoccurred.

Maintenance items for the month included: replacing 527F valve and actuator assembly (primary demineralizer outlet); replacing the outer personnel airlock door motor; removing the original pool heat exchangers 521A/B (tube-shell type) and installing new pool heat exchanger 521 (plate type); rebuilding pool pump 508B--replacing bellows seal, in and out thrust bearings, grease seals, and shaft; installing new Rosemount differential pressure flow transmitter (912F) for pool 'B' flow; shipping eight depleted fuel elements.

UNSCHEDULED SHUTDOWNS

| <u>Date</u> | <u>Number</u> | <u>Type</u> | <u>Cause</u> |
|-------------|---------------|-------------|------------------------|
| 6/15/95 | 1035 | Scram | Spurious pool low flow |

OPERATION SUMMARY

| | |
|---------------------------------|------------|
| HOURS OPERATED THIS PERIOD | 589 |
| TOTAL HOURS OPERATED | 188,957 |
| HOURS AT FULL POWER THIS PERIOD | 572 |
| TOTAL HOURS AT FULL POWER | 185,968 |
| INTEGRATED POWER THIS PERIOD | 244 MWD |
| TOTAL INTEGRATED POWER | 71,641 MWD |

MAINTENANCE ACTIVITY

- 6/5/95 Refueled - removed core 95-23, loaded core 95-24. Replaced valve and actuator 527F--primary demineralizer outlet. Replaced outer airlock door motor.
- 6/13/95 Re-installed and tested rebuilt pool pump 508B.
- 6/14/95 Completed installation of new pool heat exchanger 521 per replacement sequence and appendix.
- 6/19/95 Refueled - removed core 95-24, loaded core 95-25. Installed new Rosemount ΔP flow transmitter (912F) for pool 'B' flow.
- 6/25/95 Refueled - removed core 95-25, loaded core 95-26. Shipped eight depleted fuel elements.