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50-237

BBS Ltr. #329-75

Dresden Nuclear Power Station
R. R. #1
Morris, Illinois 60450
May 27, 1975

Mr. James G. Keppler, Regional Director
Directorate of Regulatory Operation-Region III
U. S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, Illinois 60137

SUBJECT: REPORT OF ABNORMAL OCCURRENCE PER SECTION 6.6.A OF THE TECHNICAL SPECIFICATIONS
CONTROL ROD WITHDRAWAL WITH PERSONNEL WITHIN CORE LINE-OF-SIGHT

References: 1) Regulatory Guide 1.16 Rev. 1 Appendix A

2) Notification of Region III of U. S. Nuclear Regulatory Commission
Telephone: Mr. Johnson, 1050 hours on May 16, 1975
Telegram: Mr. Keppler, 1445 hours on May 16, 1975

3) Drawing Number P & ID M-7

Report Number: 50-237/75-27

Report Date: May 27, 1975

Occurrence Date: April 21, 1975

Facility: Dresden Nuclear Power Station, Morris, Illinois 60450

IDENTIFICATION OF OCCURRENCE

A violation of section D.3 of the Dresden Master Refueling Procedure (DFP 800-1 Rev. 1) occurred during the last refueling outage of Unit-2 (1974-75). The violation occurred when a control rod was withdrawn for friction testing while both GE and CECo employees were within direct line-of-sight of the core.

CONDITIONS PRIOR TO OCCURRENCE

Unit-2 was in a refueling outage with the reactor mode switch in the REFUEL position.

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DESCRIPTION OF OCCURRENCE

At 2130 hours on April 21, 1975, Technical Staff personnel and the Operating Department began control rod drive friction testing. During this time, GE employees were on the service platform near the top of the vessel searching for the lost roll of tape. Approximately 75% of the friction testing had been completed when a fuel handling foreman noticed that both jobs were being done simultaneously. The foreman notified the Operating Engineer and friction testing was temporarily terminated at 1345 hours on April 23, 1975.

DESIGNATION OF APPARENT CAUSE OF OCCURRENCE (Operator Error)

The Master Refueling Procedure for Units 2 & 3 specifies that all personnel must leave the area within line-of-sight of the core whenever a control rod is to be withdrawn. The CRD friction testing procedure does not specify or refer to this precaution. Friction testing was "critical path" for the unit outage work. The Operating Engineer inadvertently disregarded the master procedure in the effort to complete the testing on schedule.

ANALYSIS OF OCCURRENCE

During friction testing, only one CRD can be withdrawn at a time due to an interlock in the reactor mode switch in the REFUEL position. As demonstrated by shutdown margin tests performed after the core was loaded, the withdrawal of any one rod could not produce criticality. In addition, because there was twenty feet of water over the core for shielding, the personnel on the service platform could not have experienced any noticeable increase in radiation. Therefore, the health and safety of the plant personnel and the public were not endangered in any way.

CORRECTIVE ACTION

To complete this series of friction tests, a verification procedure was initiated to insure that there were no personnel on the service platform.

To prevent a recurrence of this nature, a modification is being initiated to provide an interlock on the service platform for Units 2 & 3. When the platforms are in place and operable, a CRD rod block signal will be initiated. Before friction testing is begun on Unit-3 during the present outage, the friction testing procedure will be upgraded to include the precautions specified in the master refueling procedure.

Arthur M Roberts
for B. B. Stephenson
Superintendent

BBS:GAR:smp

File/NRC