

U.S. NUCLEAR REGULATORY COMMISSION  
OFFICE OF INSPECTION AND ENFORCEMENT

REGION III

Report No. 50-10/78-17; 50-237/78-15; 50-249/78-17

Docket No. 50-10; 50-237; 50-249 Licenses No. DPR-02, DPR-19, DPR-25

Licensee: Commonwealth Edison Company  
P. O. Box 767  
Chicago, IL 60690

Facility Name: Dresden Nuclear Power Station, Units 1, 2, 3

Inspection At: Dresden Site, Morris, IL

Inspection Conducted: May 8 and 9, 1978

Inspector: *J. S. Creswell*  
J. S. Creswell

6/5/78

Approved By: *J. F. Streeter*  
J. F. Streeter, Chief  
Nuclear Support Section 1

6/5/78

Inspection Summary

Inspection on May 8 and 9, 1978 (Reports No. 50-10/78-17; 50-237/78-15; 50-249/78-17)

Areas Inspected: Routine, unannounced inspection of commitments made with regard to items of noncompliance associated with the December 28 short period event which occurred at Unit 2 and commitments made in association with short period events that occurred at the Quad-Cities facility. The inspection involved seven inspection-hours onsite by one NRC inspector.

Results: No items of noncompliance or deviations were identified.

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## DETAILS

### 1. Persons Contacted

- \*A. Roberts, Assistant Station Superintendent
- \*D. Farrar, Technical Staff Supervisor
- \*G. Readanz, QA Coordinator
- \*T. Rausch, Lead Nuclear Engineer

\*Donates those attending the exit interview.

### 2. Corrective Actions Associated With The Dresden Unit 2, December 28, 1976 Event

The inspector reviewed corrective actions as delineated in a CECO response to items of noncompliance<sup>1/</sup> issued as a result of the aforementioned event. Corrective actions associated with the commitments to revise procedures were reviewed. The following procedures were inspected for compliance with the commitments:

DGP 1-1 Unit 2/3 Normal Unit Startup  
DGP 3-4 Control Rod Movements - Control Rod Sequences  
DGA 7 Unplanned Reactivity Additions

No items of noncompliance or deviations were identified during the review.

### 3. Corrective Actions Associated With The Quad-Cities May 4 and 7, 1977 Events

The inspector<sup>2/</sup> reviewed corrective actions as delineated in a CECO response<sup>2/</sup> to items of noncompliance issued as a result of the aforementioned events. The area reviewed was the commitment to review and reevaluate all station procedures involving control rod movement to determine the distinction between responsibilities of supervision, technical direction, and operators. As a result of the licensee's review and reevaluation the following procedures were revised:

DTP 8271 Rev. 1, Guidelines for Control Rod Sequence Development  
DTS 8250 Rev. 2, Nuclear Engineer's Pre-startup Surveillance  
DGA 7 Rev. 1, Unplanned Reactivity Additions  
DGP 3-4 Rev. 3, Control Rod Movements - Control Rod Sequences

- 1/ Ltr, Bolger to Thornburg, dtd 7/7/77.  
2/ Ltr, Bolger to Thornburg, dtd 8/16/77.

DGP 1-1 Unit 2/3 Normal Unit Startup  
DOP 300-14 Control Rod Drive System Drive Replacement

DFP 800-1 Rev. 1, Master Refueling Procedure  
DTS 300-1 Rev. 2, Technical Staff Responsibility for Control  
Rod Drive Maintenance and Testing

DTS 300-2 Rev 3, Control Rod Drive Scram Testing and Scram Valve  
Timing Test  
Unit 1 DTS 300-3 Control Rod Drive Friction and Scram Test  
Calibration and Equipment Set-up

DTS 300-5 Rev. 2, Control Rod Drive Timing Test (W/O Process  
Computer)

DTS 300-6 Rev. 2, Control Rod Drive Friction Testing

Unit 1 DTS 8101 Rev. 1, Verification of Control Rod Blade  
Drive Following

Unit 1 DTS 8104 Rev. 1, D-1 Shutdown Margin Demonstration

Unit 1 DTS 8105 Rev. 1, Moderator Temperature Coefficient Checklist

Unit 1 DTS 8106 Rev. 0, Development of Control Rod Drive Movement

Unit 1 DTS 8108 Rev. 1, S.R.M. Response  
Unit 1 DTS 8111 Rev. 1, Shutdown Margin Verification  
DTS 8134 Rev. 3, Units 2/3 Shutdown Margin Demonstration

DTS 8137 Rev. 1, Moderator Temperature Coefficient of Reactivity  
DTS 8141 Rev. 1, Initial Criticality Comparison D 2/3  
DTS 8154 Rev. 1, Control Rod Following and LPRM Operability  
Verification

DTS 8250 Rev. 1, Nuclear Engineer's Pre-Startup Surveillance

DGP 1-2 Rev. 9, March 1978 Unit 2/3 Startup to Hot Standby

DGP 3-1 Rev. 2, Routine Power Changes  
DOS 300-1 Rev. 2, Daily/Weekly Control Rod Drive Exercise

Procedure DGA 7 required the following subsequent operator  
actions to be taken following an unpredicted reactivity addition:

Conduct an investigation of the unpredicted reactivity addition prior to resuming normal operation. The investigation should include:

- a. The cause of the reactivity addition.
- b. Any abnormal increase in offgas activity which resulted from the unpredicted reactivity addition.
- c. Corrective action to be taken to avoid any similar unpredicted reactivity addition when resuming normal operation.
- d. Review the reactivity addition and subsequent transient for possible Technical Specification violations.

Procedure DTS 8134, Units 2/3 Shutdown Margin Demonstration, did not include specification of who decides the method to be used to demonstrate the shutdown margin and if criticality is to be attained during the demonstration. In addition, the procedure did not address informing the operator if criticality was to be experienced.

4. Exit Interview

The inspector met with licensee representatives (denoted in Paragraph 1) at the conclusion of the inspection and summarized the inspection findings. The following items were discussed.

- a. The delineation of responsibilities in Procedure DGA 7 with regard to actions to be taken after unpredicted reactivity additions (Paragraph 3).
- b. The delineation of responsibilities in Procedure DTS 8134 with regard to methods to be used.

The licensee stated they would revise Procedure DGA 7 to assign the review of unpredicted reactivity additions to the proper technical function. In addition, the licensee stated that Procedure DTS 8134 would be revised to (1) specify the individual responsible for deciding which shutdown margin demonstration method will be used, (2) address whether criticality is planned, and (3) require informing the operator if criticality is planned.