

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

REGION III

Report No. 50-10/79-19, 50-237/79-23; 50-249/79-21

Docket No. 50-10; 50-237; 50-249 License No. DPR-2; DPR-19; DPR-25

Licensee: Commonwealth Edison Company  
Post Office Box 767  
Chicago, IL 60690

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

Inspection At: Dresden Site, Morris, IL

Inspection Conducted: September 4-28, 1979

Inspectors: *R. L. Spessard*  
J. L. Barker *for* 10/15/79  
*R. L. Spessard*  
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R. L. Spessard, Chief 10/15/79  
Reactor Projects Section 1

Inspection Summary

Inspection on September 4-28, 1979 (Report No. 50-10/79-19; 50-237/79-23; 50-249/79-21)

Areas Inspected: Routine, unannounced resident inspection of maintenance activities; plant operations; physical protection - security organization, physical barriers, access control (identification, authorization, badging, search and escorting), and communications; calibration of safety related components required by technical specifications; licensed operator requalification training; IE Bulletin followup; surveillance of core power distribution limits; thermal power evaluation; IE Circular followup; organization and administration; calibration of LPRM system; APRM calibration; review and audits; radiation protection - operations; procurement; and followup on outstanding inspection items. The inspection involved 147 inspector-hours onsite by two NRC inspectors.

Results: Of the sixteen areas inspected, there were no items of noncompliance identified in fifteen areas. There were four items of noncompliance (Infraction - failure to control access to high radiation area - paragraph 3, Infraction - failure to follow procedures - paragraph 3, Infraction - failure to follow procedures - paragraph 3, Infraction - failure to follow procedures - paragraph 3) identified in one area.

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## DETAILS

### 1. Persons Contacted

#### a. Corporate Personnel

- \*C. Reed, Manager of Nuclear Operations
- L. Peoples, Director of Nuclear Licensing
- W. Stiede, Station Nuclear Engineering Manager
- \*C. Young, Compliance Administrator

#### b. Station Personnel

- \*B. Stephenson, Station Superintendent
- \*R. Ragan, Operations Assistant Superintendent
- J. Eeingenburg, Maintenance Assistant Superintendent
- \*B. Shelton, Administrative Services and Support Assistant Superintendent
- \*D. Farrar, Technical Staff Supervisor
- C. Sargent, Unit 1 Operating Engineer
- J. Wujciga, Unit 2 Operating Engineer
- M. Wright, Unit 3 Operating Engineer
- E. Budzichowski, Unit Support Operating Engineer
- D. Adam, Waste Systems Engineer
- J. Parry, Rad-Chem Supervisor
- B. Sanders, Station Security Administrator
- \*E. Wilmore, QA Coordinator

The inspector also talked with and interviewed several other licensee employees, including members of the technical and engineering staffs, reactor and auxiliary operators, shift foremen, electrical, mechanical and instrument personnel, and contract security personnel.

\*Denotes those attending one or more exit interviews conducted on September 7, 14, 21 and 28, 1979.

### 2. Maintenance

Station maintenance activities of safety related systems and components were reviewed to ascertain that they are conducted in accordance with approved procedures, regulatory guides and industry codes or standards and in conformance with Technical Specification requirements.

The following items were considered during this review: the limiting conditions for operations were met while components or systems were removed from service; approvals were obtained prior to initiating the work; maintenance activities were accomplished using approved

procedures; maintenance activities were inspected as applicable; functional testing and/or calibrations were performed prior to returning components or systems to an operating status; quality control records were maintained for maintenance activities; and maintenance activities were accomplished by qualified personnel.

The inspector observed maintenance in progress concerning the following work requests: Unit 2; WR 1780, drywell Vent Valve 2-1601-60 and Unit 3; WR 1644, Unit 3 Diesel generator quarterly inspection, WR 1827, Unit 3; Off-gas monitor, and WR 2004, control rod drive H-10 (50-39) scram outlet valve. The inspector reviewed the following completed work packages: Unit 1; WR 955, fuel pool grapple; Unit 2; WR 1428, SRM channel 22 high voltage power supply; and Unit 3; WR 1636, SBLC relief valve and WR 1809, refueling platform grapple latch light.

No items of noncompliance were identified.

### 3. Plant Operations

The inspector reviewed the plant operations including examinations of control room log books, routine patrol sheets, shift engineer log book, equipment outage logs, special operating orders, and jumper and tagout logs for the month of September, 1979. The inspector observed plant operations during four offshifts during the month of September, 1979. The inspector also made visual observations of the routine surveillance and functional tests in progress during the period. This review was conducted to verify that facility operations were in conformance with the requirements established under Technical Specifications, 10 CFR, and Administrative Procedures. A review of the licensee's deviation reports for the period was conducted to verify that no violations of the licensee's Technical Specifications were made. The inspector conducted a tour of Units 1, 2 and 3 reactor buildings and turbine buildings throughout the period and noted that the monitoring instrumentation was recorded as required, radiation controls were properly established, fluid leaks and pipe vibrations were minimal, seismic restraint oil levels appeared adequate, equipment caution and hold cards agreed with control room records, plant housekeeping conditions/cleanliness were adequate, and fire hazards were minimal. The inspector observed shift turnovers to verify that plant and component status and problem areas were being turned over to relieving shift personnel. The inspector observed sampling and chemical analysis of water chemistry samples to verify that water chemistry was being maintained in accordance with Technical Specifications.

During a routine tour of the Unit 2/3 turbine building on September 6, 1979, the inspector observed the cage door, a posted high radiation area entrance point, on the northeast end of the Unit 2 turbine floor was unlocked and unattended. This is contrary to 10 CFR 20.203(c)(2). The inspector further determined, through a review of the licensee's

high radiation area control log, that the last entrance to that area was on September 4, 1979, indicating that the high radiation door had been unlocked and unattended for two days. This is considered an item of noncompliance of significant safety concern. (237/79-23-01) Also, of equal concern is the fact that this occurrence is the third repetition of inadequate control over entrance and exit of high radiation areas during the last year.

During a review of the circumstances surrounding the incident above, the inspector determined through a review of the licensee's procedure, "Shift Operating Routines, Appendix C," that the high radiation door had been logged as "locked" during the midnight shift of September 5 and 6, 1979. Further investigation determined that the unit equipment operator did not actually pull on the cage door to verify its being locked. This failure to follow procedures is contrary to Technical Specifications, Section 6.2.A and is considered an item of noncompliance of significant safety concern. (237/79-23-02)

During a routine tour of Unit 1 primary containment on September 13, 1979, the inspector observed a contract welder performing welding activities in a safety related area with no fire watch to perform the duty of watching for potential fires. The licensee's procedure DMP 4100-1, "Fire Protection Procedure for Use of Heat Sources in the Plant," requires a fire watch be designated and present during welding activities. This failure to follow procedures is contrary to Technical Specifications, Section 6.2.A.6 and is considered an item of noncompliance of significant safety concern. (10/79-19-01)

Further, during the incident identified in the above paragraph, the inspector observed the contract welder chewing on a cigar in Unit 1 primary containment, a posted, controlled radiation area. This is specifically prohibited by the licensee's Radiation Control Standards Procedure 37-1-E-3, "Work in Controlled Areas (Radiation and High Radiation Areas)." This failure to follow procedures is contrary to Technical Specifications, Section 6.2.B and is considered an item of noncompliance of significant safety concern. (10/79-19-02)

No additional items of noncompliance were identified.

#### 4. Physical Protection - Security Organization

The inspector verified by observation and personnel interview (once during each operating shift) that at least one full time member of the security organization who has the authority to direct the physical security activities of the security organization was onsite at all times; verified by observation that the security organization was properly manned for all shifts; and verified by observation that members of the security organization were capable of performing their assigned tasks. There were no weapons qualifications conducted during this monthly inspection.

No items of noncompliance were identified.

5. Physical Protection - Physical Barriers

The inspector verified that certain aspects of the physical barriers and isolation zones conformed to regulatory requirements and commitments in the physical security plan (PSP); that gates in the protected area were closed and locked if not attended; that doors in vital area barriers were closed and locked if not attended; and that isolation zones were free of visual obstructions and objects that could aid an intruder in penetrating the protected area.

No items of noncompliance were identified.

6. Physical Protection - Access Control (Identification, Authorization, Badging, Search, and Escorting)

The inspector verified that all persons and packages were identified and authorization checked prior to entry into the protected area (PA), all vehicles were properly authorized prior to entry into a PA, all persons authorized in the PA were issued and displayed identification badges, records of access authorized conformed to the PSP, and all personnel in vital areas were authorized access; verified that all persons, packages, and vehicles were searched in accordance to regulatory requirements, the PSP, and security procedures; verified that persons authorized escorted access were accompanied by an escort when within a PA or vital area; verified that vehicles authorized escorted access were accompanied by an escort when within the PA; and verified by review of the licensee's authorization document that the escort observed above was authorized to perform the escort function.

No items of noncompliance were identified.

7. Physical Protection - Communications

The inspector verified by observation (during each operating shift) that communications checks were conducted satisfactorily at the beginning of and at other prescribed time(s) during the security personnel work shift and that all fixed and roving posts, and each member of the response team successfully communicate from their remote location; and verified that equipment was operated consistent with requirements in the PSP and security procedures.

No items of noncompliance were identified.

8. Calibration of Safety Related Components Required by Technical Specifications

The inspector observed calibration of source range monitoring and intermediate range monitoring systems and verified conformance

with Technical Specifications and use of a technically adequate procedure. He also selected four instrument testing devices (DF-5, Tektronix Oscilloscope - SC 502; DY-13, Pulse Generator - PG 501; DY-14, Function Generator - FG 501; and DW-14, Tektronic Digital Multimeter - DM 501) used as a standard and verified that calibration frequency was met, that accuracy was verified as prescribed by internal procedures or specifications, that accuracy was traceable to National Bureau of Standards or other independent testing organizations, and that storage and control of the selected devices were in accordance with internal procedures or specifications.

No items of noncompliance were identified.

9. Licensed Operator Requalification Training

The inspector attended two of the licensee's operator requalification simulator sessions and verified adequacy of the technical content of presented information. He further observed reactivity control manipulations and verified sufficient manipulations were performed by the licensed operators to maintain their license current.

No items of noncompliance were identified.

10. IE Bulletin Followup

For the IE Bulletins listed below the inspector verified that the written response was within the time period stated in the bulletin, that the written response included the information required to be reported, that the written response included adequate corrective action commitments based on information presentation in the bulletin and the licensee's response, that licensee management forwarded copies of the written response to the appropriate onsite management representatives, that information discussed in the licensee's written response was accurate, and that corrective action taken by the licensee was as described in the written response.

IEB 79-04, Incorrect Weight for Swing Check Valve Manufactured by Velon Engineering Corporation

IEB 79-08, Event Relative to Boiling Water Reactor Identified During Three Mile Island Incident

IEB 79-09, Failure of GE Type AK-2 Circuit Breakers in Safety Related Systems

IEB 79-10, Requalification Training Program Statistics

IEB 79-11, Faulty Overcurrent Device in Circuit Breakers for Engineered Safety Feature Systems

No items of noncompliance were identified.

11. Surveillance of Core Power Distribution Limits

The inspector verified through examination of P-1 print outs obtained on September 13, 1979 for Units 2 and 3 that linear heat generation rates (LHGR) were within Technical Specifications limits and that if core maximum peaking factors were above design value total peaking factors for that class of fuel, APRM setpoint adjustments would be made by the amount specified in Technical Specification; and verified by examination of the OD-6, "Thermal Data in a Specified Bundle," associated with the P-1 selected above that minimum critical power ratio (MCPR) and average planar linear heat generation rate (APLHGR) were with Technical Specifications limits.

No items of noncompliance were identified.

12. Thermal Power Evaluation

The inspector reviewed the results of the licensee's core thermal power evaluation for Units 2 and 3 which were obtained on September 13, 1979 and verified the technical adequacy of the evaluations and results and that the frequency of evaluations was as prescribed by the facility's Technical Specifications.

No items of noncompliance were identified.

13. IE Circular Followup

For the IE Circulars listed below, the inspector verified that the Circular was received by the licensee management, that a review for applicability was performed, and that if the circular were applicable to the facility, appropriate corrective actions were taken or were scheduled to be taken.

IEC 78-02, Proper Lubricating Oil for Terry Turbines

IEC 79-02, Failure of 120 Volt AC Power Supplies

IEC 79-04, Loose Locking Nut on Limitorque Valve Operator

IEC 79-05, Moisture Leakage in Stranded Wire Conductors

IEC 79-13, Replacement of Diesel Fire Pump Starting Contactors

No items of noncompliance were identified.

14. Organization and Administration

The inspector verified that changes in the organizational structure and assignments had been reported to the NRC through the licensee's QA program and verified that persons assigned to new or different positions in the licensee's organization since the last inspection of this area satisfy qualifications identified in the Technical Specifications, the licensee's QA program, and applicable national standards. The inspector noted that the licensee's organizational changes had been reported to the NRC's Nuclear Reactor Regulation Office through the licensee's QA program, but the necessary changes to the Technical Specification had not been approved and implemented. This is an unresolved item. (10/79-19-03; 237/79-23-03; 249/79-21-01)

No items of noncompliance were identified.

15. Calibration of Local Power Range Monitor (LPRM) System

On September 12, 1979, the inspector observed a LPRM calibration on Unit 2 and verified that the calibration was performed in accordance with approved procedures and at required Technical Specification frequency, verified that the following LPRM calibration APRM settings were reviewed to assure they were within Technical Specification limits, and verified that post gain adjustment P-1 calculations and gain adjustment factors were within established limits.

No items of noncompliance were identified.

16. Average Power Range Monitor (APRM) Calibration

On September 12, 1979, the inspector observed APRM calibrations on Units 2 and 3 and verified that the calibrations were performed in accordance with technically adequate procedures and required Technical Specification frequency.

No items of noncompliance were identified.

17. Review and Audits

On September 18 and 19, 1979, the inspector witnessed an audit conducted by the licensee's offsite audit team and verified conformance with Technical Specification requirements and QA procedures.

No items of noncompliance were identified.

18. Radiation Protection - Operations

On September 26 and 28, 1979, the inspector examined all radiation protection instruments in use and verified operability and currency



of calibration, examined four SWP's and verified operations conducted under the SWP's were in accordance with licensee procedures and verified that high radiation area posting and control and 10 CFR 19 posting requirements were met.

No items of noncompliance were identified.

19. Procurement

The inspector conducted a tour of the licensee's storage areas and verified that safety related material and spare parts received on site had been inspected by qualified personnel, that storage and packaging requirements had been defined and were met, that preventative maintenance was accomplished, that identification and traceability were adequate, and that items with limited shelf life were controlled in accordance with the licensee's QC procedures.

No items of noncompliance were identified.

20. Followup on Outstanding Inspection Items

On September 21, 1979, the inspector visited the licensee's corporate offices. He reviewed the Booz Allen Management Consultants report of a study done on the licensee's management structure and verified that the licensee had the report available and had properly reviewed the findings and recommendations of the report.

No items of noncompliance were identified.

21. Exit Interview

The inspector met with licensee representatives (denoted in Paragraph 1) throughout the month and at the conclusion of the inspection on September 28, 1979 and summarized the scope and findings of the inspection activities. The licensee acknowledged the items of noncompliance identified in paragraph 3.

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