U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-010/82-16(DPRP); 50-237/82-23(DPRP); 50-249/82-23(DPRP)

Docket No. 50-010, 50-237, 50-249 License 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, and 3

Inspection At: Dresden Site, Morris, IL

Inspection Conducted: September 4 through October 1, 1982

Inspectors: T. M. Tongue for

R. D. Walker for M. J. Jordan R. S. Walker for

Approved By:

R. D. Walker, Chief Projects Section 2C

12/21/82 12/21/82

12/21-82

Inspection Summary

Inspection on September 4 through October 1, 1982 (Report No. 50-10/82-16(DPRP); 50-237/82-23(DPRP); 50-249/82-23(DPRP))

<u>Areas Inspected:</u> Routine unannounced resident inspection of Operational Safety Verification, Monthly Maintenance Observation; Monthly Surveillance Observation; Licensee Event Reports, Plant Trips; Spent Fuel Racks; Observation of Work and Work Activities; and Inspection During Long Term Shutdown. The inspection involved a total of 71 inspector-hours onsite by three NRC inspectors including 18 inspector-hours onsite during offshift.

Results: No items of noncompliance or deviations were identified.

1. Persons Contacted

- *D. Scott, Station Superintendent
- R. Ragan, Operations Assistant Superintendent
- J. Eenigenburg, Maintenance Assistant Superintendent
- D. Farrar, Administrative Services and Technical Assistant Superintendent
- J. Brunner, Technical Staff Supervisor
- J. Wujciga, Unit 1 Operating Engineer
- J. Almer, Unit 2 Operating Engineer
- M. Wright, Unit 3 Operating Engineer
- J. Doyle, Quality Control Supervisor
- D. Sharper, Acting Waste Systems Engineer
- G. Myrick, Radiation-Chemistry
- B. Saunders, Station Security Administrator
- B. Zank, Training Supervisor
- L. Williams, Quality Assurance Coordinator
- *D. Ruppert, Quality Assurance Auditor

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

*Denotes those attending one or more exit interviews conducted on September 10, 17, and October 1, 1982.

2. Headquarters/Regional Requests

Region III requested information in followup to a Brown's Ferry NPS licensee event report (LER) 50-260/82-23, where the High Pressure Coolant Injection (HPCI) high steam flow differential pressure (dp) switches were both rendered inoperable by one equalizing valve on one switch leaking past it's seat.

The inspector reviewed the piping and instrumentation diagrams, the installed piping and interviewed an Instrument Maintenance Foreman which verified that the same condition could exist at Dresden. At Brown's Ferry, the same problem did not exist with the Reactor Core Isolation Cooling System (RCIC) turbine. However, a review of the Isolation Condenser systems at Dresden revealed that the same problem could occur on the high steam flow and high condensate flow dp switches which have nearly identical design and installation as the HPCI high steam flow dp pressure switches.

This information was submitted to Region III to be forwarded to NRC Headquarters for evaluation.

The resident inspectors received a request to followup on deficiencies identified with Bunker Ramo primary containment electrical penetration assemblies. Through interviews, station maintenance personnel stated that there are no primary containment electrical penetrations at Dresden of the Bunker Ramo type.

The senior resident inspector was requested to obtain information regarding the licensee's present capacity for storage of low level radioactive waste on site. The data requested was to include consideration for continued operation with routine outages and the assumption that no shipments of waste were to be made from the site. Also, any contingency plans and applicable 10 CFR 50.59 reviews on this matter were to be included. The Acting Waste Systems Engineer provided a copy of an internal report dated September 9, 1980 stating that if all shipments of low level radioactive waste were stopped, the station would deplete it's available storage space in 15 months. The rate of production of radioactive waste has changed since the development of that report, so the licensee conducted an updated study. That updated report, dated September 27, 1982, shows that if all shipments were to cease, the station would consume it's present radioactive storage capacity in 14 months. The licensee also has a tenative contingency plan under development for erecting additional storage capacity on site to increase the low level radioactive storage capacity if necessary.

No items of noncompliance or deviations were identified in this area.

3. Operational Safety Verification

The inspector observed control room operations, reviewed applicable logs and conducted discussions with control room operators during the period of September 4 through October 1, 1982. The inspectors verified the operability of selected emergency systems, reviewed tagout records and verified proper return to service of affected components. Tours of Units 2 and 3 reactor buildings and turbine buildings were conducted to observe plant equipment conditions, including potential fire hazards, fluid leaks, and excessive vibrations and to verify that maintenance requests had been initiated for equipment in need of maintenance. The inspector by observation and direct interview verified that the physical security plan was being implemented in accordance with the station security plan.

The inspector observed plant housekeeping/cleanliness conditions and verified implementation of radiation protection controls. During the inspection period, the inspector walked down the accessible portions of the Unit 2 Diesel Generator, Isolation Condenser, High and Low Pressure Coolant Injection, and Core Spray Systems; the Unit 3 Diesel Generator, Stand by Liquid Control; High and Low Pressure Coolant Injection and Core Spray Systems; and the Unit 2/3 Standby Gas Treatment System to verify operability. The inspectors also witnessed portions of the radioactive waste system controls associated with radwaste shipments and barreling.

These reviews and observations were conducted to verify that facility operations were in conformance with the requirements established under technical specifications, 10 CFR, and administrative procedures.

While conducting a routine control room walkdown on September 27, 1982, the senior resident inspector noticed the Unit 2 process computer alarm acknowledge switch held with an electrical lug in the depressed position (acknowledge position). This condition anticipates and acknowledges alarms without the reactor operator present. If the operator does not acknowledge the computer alarm and he is preoccupied with some other task, a significant alarm may go unnoticed even though all computer alarms are printed on one of the associated typers next to the computer console. This condition existed for at least three shifts on that occasion and the reactor was shutdown. Interviews with licensee personnel revealed that this is a common practice on Units 2 and 3, expecially when frequently repeated alarms are coming in, such as during a startup and rod movements. It was also found that QA personnel have been aware of this practice. On September 27, the computer alarm typer record showed that half of the 40-50 alarms during a shift were from a turbine vibration alarm which was false because the turbine was shutdown. One option available at that time would have been to remove that alarm from the system within the computer, however, there is no provision requiring a review of the bypassed alarms to ensure it is returned when required. The inspector recognizes that the process computer is not a safety related component. However, it does provide numerous safety functions. Further, all safety related alarms are annunciated on the reactor control panels and duplicated on the computer. It is also recognized that when an operator must acknowledge alarms on the computer console, as well as the reactor panels, the computer alarm could be a distraction from more significant events at the reactor panels. As a result of this finding, the licensee is conducting a survey of all digital alarms to determine their necessity; has previously conducted an onsite review of all analog alarms; is considering removing redundant alarms from the computer; and is planning the installation of new computor panels in the proximity of the 902(3)-5 control panels. However, this action represents a poor operating practice as identified in the cover letter of this report. The inspector will followup on licensee actions to correct this item as an Open Item (50-237/82-23-01(DPRP); (50-249/82-23-01(DPRP).

No items of noncompliance or deviations were identified in this area.

4. Monthly Maintenance Observation

Station maintenance activities of safety related systems and components listed below were observed/reviewed to ascertain that they were conducted in accordance with approved procedures, regu atory guides and industry codes or standards and in conformance with technical specifications.

The following items were considered during this review: the limiting conditions for operation were met while components or systems were removed from service; approvals were obtained prior to initiating the work; activities were accomplished using approved procedures and were inspected as applicable; functional testing and/or calibrations were performed prior to returning components or systems to service; quality control records were maintained; activities were accomplished by qualified personnel; parts and materials used were properly certified; radiological controls were implemented; and, fire prevention controls were implemented.

Work requests were reviewed to determine status of outstanding jobs and to assure that priority is assigned to safety related equipment maintenance which may affect system performance. Maintenance on the Unit 3 Diesel Generator was observed.

Following completion of maintenance on the Unit 3 Diesel Generator, the inspector verified that these systems had been returned to service properly.

No items of noncompliance or deviations were identified in this area.

5. Monthly Surveillance Observation

The inspector observed technical specifications required surveillance testing on the Unit 2/3 Standby Gas Treatment System and verified that testing was performed in accordance with adequate procedures, that test instrumentation was calibrated, that limiting conditions for operation were met, that removal and restoration of the affected components were accomplished, that test results conformed with technical specifications and procedure requirements and were reviewed by personnel other than the individual directing the test, and that any deficiencies identified during the testing were properly reviewed and resolved by appropriate management personnel.

The inspector also witnessed portions of the Unit 2 Half Core Scram Testing and the Unit 3 Rod Block Monitor Channel 7 Calibration.

No items of noncompliance or deviations were identified in this area.

6. Licensee Event Reports Followup

Through direct observations, discussions with licensee personnel, and review of records, the following event reports were reviewed to determine that reportability requirements were fulfilled, immediate corrective action was accomplished, and corrective action to prevent recurrence had been accomplished in accordance with technical specifications.

LER		UNIT 3
(Closed)	50-249/80-48	Shutdown Cooling Isolation Valve MO 3-1001-1B Failure to Close
(Closed)	50-249/81-17	RPS-MG # 3B Set Failed to Trip on Under Voltage Signal
(Closed)	50-249/81-26	Erroneous Position Indication of Control Rod P-10 in Rod Worth Minimiter
(Closed)	50-249/82-01	Torus to Drywell Vacuum Breaker 3-1601-32B Seal Failure

50-249/82-02	Excessive Leakage of Main Steam Isolation Valves (MSIV) 3-203-2B and 2D During Local Leak Rate Testing
50-249/82-03	Main Steam Line Area Temperature Switch 3-261-16C Out of Calibration
50-249/82-04	Excessive Through Seat Leakage of Containment Valve A0-3-1601-23
50-249/82-06	Missed Surveillance of the Battery
50-249/82-08	HPCI Area Temperature Switches; Set points above the Technical Specification Limit
50-249/82-11	Failure of HPCI Turbine Exhaust Check Valve 2301-45
50-249/82-12	Failure of Drywell and Torus Purge System Valve 3-1601-21 to Pass Local Leak Rate Test
50-249/82-13	Failure of Primary Containment Nitrogen Make Up Valve RV 3-8526 to Pass Local Leak Rate Test
50-249/82-14	Discovery of Crack in Unit 3 Head Seal Leakoff Line
50-249/82-15	Failure of Auto Blowdown Time Delay Relay to Trip Withing Limits
	50-249/82-02 50-249/82-03 50-249/82-04 50-249/82-06 50-249/82-08 50-249/82-11 50-249/82-12 50-249/82-13 50-249/82-14

(Closed) 50-249/82-16 Mechanical Snubber Failed Stroke Test

Regarding LER 50-249/82-04, the licensee is conducting a study into the cause of the seal failure to determine long term corrective action. This LER will remain open until that study is complete.

Regarding LER 50-249/82-06, the licensee's corrective action is acceptable for the short term (1-2 years). In light of the normal high personnel turnover in the industry, the Technical Staff Supervisor agreed to provide some means to provide long term correction. This LER will remain open until that action is complete.

Regarding LER 50-249/82-08, the licensee agreed to submit an amended LER to show the "as found" switch trip points of the switches along with a summary explaining the apparent cause of the screws loosening up.

Regarding LER 82-14, the licensee is amending a procedure to prevent future loss or disposal of cracked or broken components prior to analyzing their failure. This coincides with the present NRC program requesting information for a data bank on failed piping with Battelle in Columbus, Ohio. This LER will remain open until that procedure change is complete. No items of noncompliance or deviations were identified in this area.

7. Plant Trips

Following the plant trips of Unit 2 on September 24, 1982, the inspector ascertained the status of the reactor and safety systems by observation of control room indicators and discussions with licensee personnel concerning plant parameters, emergency system status and reactor coolant chemistry. The inspector verified the establishment of proper communications and reviewed the corrective actions taken by the licensee.

All systems responded as expected, and the plant was returned to operation on September 30, 1982.

No items of noncompliance or deviations were identified in this area.

8. Spent Fuel Storage Racks - Observation of Work and Work Activities

The inspector observed portions of the spent fuel storage rack modifications taking place on Dresden Unit 2. The inspector observed removal of the used spent fuel racks, spent fuel pool vacuuming, placing of the new high density spent fuel racks, diver operations, mandrel testing and neutron attenuation tests. The inspector verified that approved procedures were followed and that activities observed were conducted in accordance with applicable committments and standards.

During the reracking operations, the licensee identified a situation where a commitment to the ASLB which was made several years ago was not being implemented. Due to the long delays in the licensing process, more spent fuel exists in the fuel pool than was anticipated when the commitment was made. The commitment was to keep the diver at least 8 feet from the spent fuel, however, there is presently only 6 feet of space available. By evaluation, underwater monitoring and having the diver wear a detector associated with a remote reading radiation monitor, the diver's exposure was kept well within regulatory limits and within the origional estimated exposure for the job. The licensee also placed older empty spent fuel racks around the divers work area to prevent him from coming in contact with the spent fuel stored in the pool if he should fall.

No items of noncompliance or deviations were identified in this area.

9. Inspection During Long Term Shutdown

The inspector observed control room operations, reviewed applicable logs and conducted discussions with control room operators during the period of September 4 through October 1, 1982. The inspector verified surveillance tests required during the shutdown were accomplished, reviewed tagout records, and verified applicability of containment integrity. Tours of Unit 1 accessible areas, including exterior areas were made to make independent assessments of equipment conditions, plant conditions, radiological controls, safety, and adherence to regulatory requirements and to verify that maintenance requests had been initiated for equipment in need of maintenance. The inspector observed plant housekeeping/cleanliness conditions, including potential fire hazards, and verified implementation of radiation protection controls. The inspector by observation and direct interview verified that the physical security plan was being implemented in accordance with the station security plan. The inspector reviewed the licensee's jumper/bypass controls to verify there were no conflicts with technical specifications and verified the implementation of radioactive waste system controls.

No items of noncompliance or deviations were identified in this area.

10. Meetings, Training, and Offsite Functions

The resident inspectors attended an NRC Region III resident inspectors seminar in Naperville, Illinois on September 23 through September 24, 1982.

11. Exit Interview

The inspectors met with licensee representatives (denoted in Paragraph 1) throughout the month and at the conclusion of the inspection on October 1, 1982 and summarized the scope and findings of the inspection activities. The licensee acknowledged the findings of the inspectors.