

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report Nos. 50-237/94005(DRP); 50-249/94005(DRP)

Docket Nos. 50-237; 50-249

License Nos. DPR-19; DPR-25

Licensee: Commonwealth Edison Company  
Opus West III  
1400 Opus Place - Suite 300  
Downers Grove, IL 60515

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

Inspection At: Morris, IL

Inspection Conducted: February 23 through April 11, 1994

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4/28/94  
Date

Inspection Summary

Inspection from February 23 through April 11, 1994 (Report Nos. 50-237/94005(DRP); 50-249/94005(DRP))

Areas Inspected: Routine, unannounced resident inspection of plant operations, maintenance and surveillance observations, engineering and technical support observations, plant support observations, safety assessment and quality verification, licensee action on previous inspection findings, and licensee event report review.

Results: Of the eight areas inspected, no violations or deviations were identified in seven areas. One violation concerning control of locked valves was identified in paragraph 3.e.

Assessment of Plant Operations

The daily orders and senior operator involvement for the Unit 3 shutdown showed positive control of unit activities. The Unit 3 outage schedule included detailed steps for operations department activities and for shutdown risk significant items. Control of locked valve checklists and system configuration remained a concern. The repeated failure to perform biocide injection showed poor coordination of operations and chemistry department

activities. Operator error detection and prevention efforts continued with success; operator involvement in rectifying unsecured portable equipment was positive.

#### Assessment of Maintenance and Surveillance

Poor work package documentation was evident in a number of examples. Poor foreign material exclusion practices were noted by the licensee and the inspectors.

#### Assessment of Engineering and Technical Support

System engineers effectively utilized thermographic inspection of electrical components and connections. In addition, the system engineers were effective in addressing a problem with main steam isolation valve limit switches.

Site engineering provided a prompt and conservative evaluation of motor operated valves which may be subject to blowdown conditions.

#### Assessment of Plant Support

Poor radiation worker practices continued. Of particular note were examples where supervisors were observing poor practices without correcting them.

## DETAILS

### 1. Persons Contacted

- \*M. Lyster, Site Vice President
- \*G. Spedl, Station Manager
- \*R. Aker, Technical Services Superintendent
- \*L. Jordan, Radiation Protection Supervisor
- M. Korchynsky, Senior Operating Engineer
- \*J. Kotowski, Operations Manager
- \*H. Massin, Engineering Manager
- \*T. O'Connor, Maintenance Superintendent
- R. Radke, Services Superintendent
- \*R. Robey, Site Quality Verification Director
- \*J. Shields, Regulatory Assurance Supervisor
- \*M. Strait, Technical Staff Supervisor
- J. Williams, Operations Support Supervisor
  
- \*M. Kunowski, NRC Regional Inspector

\* Indicates persons present at the exit interview on April 11, 1994.

The inspectors also contacted other licensee personnel including members of the operating, maintenance, engineering, and plant support staff.

### 2. Summary of Operations

#### Unit 2

The unit operated at power levels up to 99 percent. The unit was derated due to feedwater flow nozzle calibration discrepancies.

#### Unit 3

The unit continued coasting down until March 9, when the unit was shut down for its thirteenth refueling outage.

No violations or deviations were identified.

### 3. Plant Operations (71707, 71710 & 93702)

The inspectors verified that the facility was operated in conformance with the licenses and regulatory requirements and that the licensee's management control system was effectively carrying out its responsibilities for safe operation. During tours of accessible areas of the plant, the inspectors made note of general plant and equipment conditions, including control of activities in progress.

On a sampling basis, the inspectors observed control room staffing and coordination of plant activities, observed operator adherence with procedures and technical specifications, monitored control room

indications for abnormalities, verified that electrical power was available, and observed the frequency of plant and control room visits by station managers. The inspectors also monitored various administrative and operating records.

Accessible portions of engineered safety feature (ESF) systems and associated support components were inspected to verify operability through observation of instrumentation and proper valve and electrical power alignment. The inspectors visually inspected components for material condition. Specifically, the following systems were inspected by direct field observations:

2/3 Diesel generator  
Unit 3 Fuel handling systems

#### Plant Operations Observations

##### a. Method of Moving Fuel

The inspectors observed fuel handlers moving spent fuel in more than one direction at a time during fuel moves from the Unit 3 reactor to the spent fuel pool. These movements were within the licensee's procedural requirements. The inspectors observed the fuel handlers moved the fuel toward the "cattle chute" stopping about two to four feet from it. The fuel was then aligned with the cattle chute before moving it into the fuel pool. The inspectors viewed this as a method which increased the likelihood of a personnel error that could result in fuel damage. This is an Inspector Follow-up Item (50-249/94005-01(DRP)).

##### b. Shutdown Risk Review for the Unit 3 Refueling Outage

The inspectors reviewed the shutdown risk assessment performed by planning and scheduling personnel. The inspectors noted that the Unit 3 outage schedule was detailed and included out-of-service, testing, and return-to-service process steps. Work activities were enveloped to equipment out-of-service periods to reduce the equipment outage time. The licensee scheduled the work such that risk was minimized and for periods of increased risk, compensatory measures were planned. However, the inspectors identified the 2/3 diesel generator was scheduled to be out-of-service in excess of the technical specification limiting condition for operation (LCO). The licensee stated the schedule was in error and reduced the outage time within the LCO. The inspectors also reviewed the site quality verification (SQV) risk assessment and verified that SQV recommendations were implemented or addressed by the licensee. No additional concerns were identified.

##### c. Observations of Unit 3 Shutdown

On March 9, the licensee commenced Unit 3 shutdown for a planned refueling outage. The outage was started 2 days earlier than

originally scheduled due to two inoperable high pressure coolant injection (HPCI) valves. The inspectors observed portions of the shutdown activities including the heightened level of awareness briefing and the power decrease. The inspectors noted good teamwork in resolving a feedwater valve problem and good operator technique of repeat back communication. Several senior reactor operators were involved with the shutdown and provided good management oversight of the activities. The daily orders for the shutdown provided clear and explicit instructions to supplement the normal procedures. The inspectors had no concerns.

d. Partial Loss of RPIS Indication

On March 29, Unit 2 lost rod position indication for a brief period for the lower half of the full core display. The problem was determined to be a failed fan in the rod position indication power supply. On April 2, the fan was successfully replaced. In addition, the licensee added a requirement of replacing power supply fans every refueling outage in the Dresden general surveillance system.

The plan for replacement of the power supply was good. Each department involved understood the purpose and actions for the contingency plan. The replacement activity was orchestrated in an orderly fashion. The inspectors had no concerns.

e. Emergency Diesel Generator System Walkdown

During a system walkdown of the Unit 2/3 diesel cooling water system, the inspectors identified the pump discharge line vent valve was not locked as required by Dresden Operating Procedure (DOP) 6600-M2, "Unit 2/3 Standby Diesel Generator." The licensee promptly corrected this deficiency. Further review identified a discrepancy between DOP 6600-M2 and DOP 0040-M3, "Unit 2 Lock Valve List: Accessible During Operation." This vent valve was not identified in DOP 0040-M3; however, it was identified as a locked closed valve in DOP 6600-M2.

In addition, as identified in Inspection Report 50-237/249-93020 (DRP), dated September 27, 1993, there were numerous contradictions between DOP 1400-M1, "Unit 2 Core Spray System," and DOP 0040-M2 and M3. Field changes were noted in the locked valve checklist, but were not corrected in the system line up procedures. Furthermore, during a Unit 2 core spray system walkdown, the inspectors had noted incorrect valve positions in several revisions of DOP 1400-M1.

Technical Specification 6.2.A.1 required the licensee to establish, implement, and maintain written procedures recommended in Appendix A of Regulatory Guide 1.33, Revision 2, dated February 1978. Regulatory Guide 1.33, Appendix A.1.c included administrative procedures, general plant operating procedures, and

procedures for startup, operation, and shutdown of safety related systems. The licensee's failure to follow and maintain procedures for diesel cooling water and core spray system checklists, respectively, is a Violation of Technical Specification 6.2.A.1. (50-237/249-94005-02(DRP))

f. Biocide Injection

A deviation was issued in Inspection Report 50-237/249-94002(DRP) for failure to inject biocide into open cooling water systems in accordance with a commitment to Generic Letter 89-13. On February 28 and March 1, the 2/3 diesel generator was run without injection of biocide into the diesel cooling water system. This was another example of the previous deviation. The failure to inject biocide showed poor coordination of operations and chemistry department activities. After continued followup by the inspectors, a method to resolve this issue was developed. The inspectors will monitor this issue during followup of the deviation.

g. Operations Department Improvements

The licensee emphasized error detection and prevention in the operations department. This was evident from an increase in the number of problem identification forms generated by operators in 1993. Also the licensee performed a review of Licensee Event Reports resulting from operator error for 1992 and 1993. The number of such LERs for 1993 was reduced by a factor of 2 compared to 1992. The operations department initiated a number of activities to improve performance: "lessons learned" sessions during operator requalification training; effectiveness reviews to determine the adequacy of previous corrective actions; and emphasis by shift engineers on specific improvement areas, such as communications and shift turnovers. The above actions have reduced the number of operator errors in recent months.

During the report period, one error occurred when a reactor operator generated an automatic shutdown signal for Unit 3. The operator wrote a candid performance assessment which was distributed to station personnel.

The operators have shown positive ownership of plant concerns. For example, the inspectors observed increased operator involvement in resolving identified problems. One operator aggressively pursued the resolution of unsecured carts within the plant. The operator identified 16 unsecured carts and discussed the findings with appropriate department management for resolution. The operator also drafted a procedure to clearly state the expectations for securing portable equipment. The inspectors considered the operator's initiative as a positive step in resolving problems.

The inspectors previously expressed concerns with errors during the placement of out-of-service cards on equipment. This error rate diminished significantly in recent months. This was apparently due to the new out-of-service program which required fewer cards to be hung, and the reduction in personnel errors described above. Contrary to this improvement, on March 29 a valve which had been taken out-of-service in the open position was found closed. The valve had been independently verified by a separate procedure. On April 5 another valve with a caution card attached was found out of position. The inspectors had a concern with valves being incorrectly manipulated and considered this an Unresolved Item (50-237/249-94005-03(DRP)) pending licensee investigation.

The inspectors reviewed an improvement plan for maintaining the emergency operating procedures. This plan provided an outline of the actions for the team of individuals involved in procedure and program improvements, and will be reviewed by the inspectors in future inspections.

h. Operational Events

During the inspection period, additional events occurred, some of which required a prompt notification of the NRC pursuant to 10 CFR 50.72. The following events were reviewed for reporting timeliness and immediate licensee response.

- On March 3, the Unit 3 HPCI system was declared inoperable when the motor operated steam isolation valves were determined to be inoperable. The licensee closed the valves. On March 9, the licensee began a shutdown in accordance with technical specifications.
- On March 11, two time delay relays associated with the trip logic of the Unit 3 recirculation pumps for anticipated transient without scram (ATWS) events failed a surveillance test. The licensee was investigating the cause of the failure at the end of the report period.
- On March 11, an operator inappropriately moved a bypass switch for the Unit 3 scram discharge volume level switch from the bypass position to the normal position. This generated an automatic shutdown signal. The control rods were already fully inserted into the reactor core.
- On March 26, the Unit 3 diesel generator automatically started. The licensee initiated an investigation into the cause of the start signal.
- On March 29, a problem was identified with the control room ventilation system that affected the emergency operating

procedures (EOPs). The EOPs required the control room ventilation system to be manually realigned from a normal recirculation mode to an emergency filtration mode within 40 minutes in the case of a design basis accident. The 40 minute interval was based on a 2000 standard cubic feet per minute (scfm) flow rate past the valve that isolated the system from outside air. Outside air was used periodically to adjust the control room atmosphere without using the air conditioning system. When outside air was used, the outside air flow rate was 26,000 scfm, which had the potential to reduce the 40 minute interval. The licensee took the outside air mode out-of-service and made a 10 CFR 50.72 report.

- On March 29, the Unit 2 isolation condenser was isolated for 18 minutes for a suspected leak from the system. An operator identified a leak which appeared to be from the piping of the Unit 2 reactor to the isolation condenser. This condition was immediately reported to management and the system was isolated. Further investigation revealed that the leak was coming from the refueling floor above. A welded drain connection on a water shield was leaking. Operations made a conservative decision to first isolate the Unit 2 isolation condenser and then investigate.

One violation was identified concerning locked valve program. One inspector follow-up item was identified regarding method of fuel movements. A unresolved item was identified concerning valve manipulations.

#### 4. Maintenance and Surveillance (62703 and 61726)

Station maintenance and surveillance activities were observed and/or reviewed to verify compliance with approved procedures, regulatory guides, and industry codes or standards, and in conformance with technical specifications (TS).

The following items were considered during this review: approvals were obtained prior to initiating the maintenance work or surveillance testing, and operability requirements were met during such activities; functional testing and calibrations were performed prior to declaring the component operable; discrepancies identified during the activities were resolved prior to returning the component to service; quality control records were maintained; and activities were accomplished by qualified personnel.

The inspectors observed portions of the following maintenance activities:



## Unit 2

D09517 Alternative feed isolation condenser reactor inlet and outlet valves

## Unit 3

D08408 Replacement of bellows on containment penetration X-149  
D09555 Corrosion resistant cladding applied to inside diameter of isolation condenser steam side piping  
D09691 Calibration of Unit 3 scoop tube positioners  
D08567 Reactor water level transmitter  
D15950 3A Reactor recirculation motor generator  
D24531 3A 250 VDC battery charger

The inspectors also witnessed portions of the following test activities:

## Unit 2

DIS 700-06 Average Power Range Monitor (APRM) Flow Biased Scram, Rod Block and Down Scale Calibration  
DIS 3900-1 Service Water Effluent Sample Radiation Monitor Calibration and Functional Test  
DTS 0300-02 Control Rod Drive Scram Testing and Scram Valve Timing Test

## Unit 3

DTS 0250-01 Main Steam Isolation Valve Local Leak Rate (Dry) Test  
DTS 0250-03 Main Steam Isolation Valve Local Leak Rate (Wet) Test

## Maintenance and Surveillance Observations

### a. Poor Work Package Documentation

The inspectors observed the replacement of a thyristor in the Unit 3 250 VDC battery charger on March 21. The inspectors also reviewed the completed work request documentation on March 25. The work that was performed on the battery charger was poorly documented. The documentation problems included:

- A thermal conducting grease was used on the replacement thyristor but the use of this grease was not documented in the work package.
- A heat sink in which the original thyristor was installed was not compressed to the required level. This as-found condition was not documented in the work package and may have been the root cause of the thyristor failure.
- The vendor was contacted to obtain the correct amount of compression for the heat sink mentioned above. Neither this

conversation nor the as-left compression value were documented in the work package.

- A load bank used to perform post maintenance verification on the charger had a calibrated current measuring device. The identification number for the current measuring device was not recorded on the work package.
- Step 10 of the work instructions required the documentation of the as-left current limit. The current limit verification was performed but not documented in the work instructions.

On April 7 the inspectors reviewed work request D19590 for preventive maintenance work on the 3A reactor recirculation motor-generator. The following items were observed in the work package:

- Step B.8.A.2 required the exciter be determined and that this be recorded in the lifted lead log. The step was initialed; however, the lifted lead log in the work package was blank.
- Step B.8.A.5 was to perform a corn cob cleaning of the rotor and exciter as required, in accordance with Dresden Electrical Procedure (DEP) 0040-08. The step called out for the use of N/R if the step was not required. The step was initialed on March 21. Procedure DEP 0040-08 in the work package was blank.
- Step B.12 of Attachment J required that the bearings be inspected. Comments were provided as to the condition of the bearings but the step was not signed or dated.
- Step B.17 of Attachment J was signed on April 4. This step required the documentation of the torque wrench used. The torque wrench number was not documented.
- Step C.3 of Attachment J required the removal of brushes and brush rigging and to document lifted leads in the lifted lead log. This step was initialed on March 28. The lifted lead log at the back of the work package was blank.

The examples above indicated a weakness in post maintenance documentation. The actual safety significance of the failure to document these specific items was minor. However, documentation problems in these packages, and the historical failure to properly document maintenance and post maintenance testing (Inspection Reports 249/92032, 249/92036, and 249/93015) indicated a larger problem. The inspectors will monitor the effectiveness of licensee corrective actions and considered this an Unresolved Item (50-237/249-94005-04(DRP)).

b. Poor Foreign Material Exclusion Control

Both the licensee and the inspectors noted several instances of poor foreign material control. The inspectors found the following equipment with no protection from foreign material:

- Open lubricating oil lines to the 3A reactor recirculation pump motor-generator set motor bearings.
- Open Unit 3 high pressure core injection pump bearing lubricating oil return lines.
- Open Unit 3 service air header.
- Open 3B standby liquid control pump drain line.

When these items were identified to the licensee they were quickly remedied. The inspectors will review this area further.

The inspectors noted items of debris in the Unit 3 drywell first floor and basement. The debris included small plastic bags, pens, and a paper towel. The necessity to remove these items represented a challenge to both radiation exposure control and final cleanliness of the drywell.

No violations or deviations were identified. One unresolved item was identified regarding work package documentation.

5. Engineering and Technical Support (37700)

The inspectors evaluated the extent to which engineering principles and evaluations were integrated into daily plant activities. This was accomplished by assessing the technical staff involvement in non-routine events, outage-related activities, and assigned TS surveillances; observing on-going maintenance work and troubleshooting; and reviewing deviation investigations and root cause determinations.

Engineering and Technical Support Events

a. Thermographic Inspection

System engineers performed extensive thermographic inspection of electrical components and connections to identify deficiencies. A number of deficiencies were identified prior to the condition causing or contributing to a plant transient. Examples included an overheated rectifier on the Unit 2 main generator power rectifier cubicle and the Unit 2 auxiliary transformer control panel. This activity demonstrated proactive approach to equipment monitoring.

b. Main Steam Isolation Valve Limit Switch Testing

On August 29, 1993, a PIF was generated documenting actuation of a single channel of the reactor protection system during MSIV limit switch testing. The first MSIV limit switch had not reset which caused the channel actuation when a second valve was tested. The limit switch was found to be sticking and the system engineer dispositioned the PIF as a grease hardening problem.

On December 1, 1993, a different MSIV limit switch was observed to be sluggish to operate. At this point the system engineer started a more detailed investigation and determined the switch setup process may not be adequately addressing thermal expansion.

On January 22, 1994, a different channel of the reactor protection system actuated during MSIV limit switch testing. The system engineer's corrective actions took two paths. The first was to inform the operations department to check relay positions before and after performing each limit switch check. This action was included in Dresden Operating Surveillance Procedure (DOS) 0250-01, "Partial Closure Operability Test of Main Steam Isolation Valves," on March 24. On March 29 an actuation of the protection system was avoided because of the relay checks performed under the revised procedure. The second path was to modify the setpoint procedure to allow for thermal expansion. This work was still in progress at the end of the report period. The above actions showed an appropriate use of the PIF process by escalating actions as trends developed.

c. Feedwater Flow Nozzle Calibration

On September 24, 1993, Units 2 and 3 were administratively derated 3 percent due to feedwater flow nozzle calibration uncertainties. On September 27, 1993, the derate was reduced to 1 percent. A calibration at the licensee's Quad Cities facility showed the feedwater flow nozzle uncertainty contributed to an overpower condition of about 1 percent. The potential overpower condition at Dresden is an Unresolved Item (50-237/249-94005-05(DRP)) pending further testing by the licensee.

d. Motor Operated Valves

The licensee discovered some motor operated valves on systems where blowdown conditions can occur were subject to higher closing forces than previously identified. The site engineering department promptly and conservatively identified those valves which would no longer meet design requirements. The steam supply valves for the Unit 3 high pressure coolant injection system were declared inoperable, which resulted in an early commencement of Unit 3 refueling outage.

No violations or deviations were identified. One unresolved item was identified concerning feedwater flow nozzle calibration.

6. Plant Support (71707 and 93702)

The inspectors evaluated the involvement of support organizations in assuring safe and effective plant operation. Specific areas included:

- Radiation Protection Controls

The inspectors verified workers were following health physics procedures and randomly examined radiation protection instrumentation for operability and calibration.

- Security

During the inspection period, the inspectors monitored the licensee's security program to ensure that observed actions were being implemented according to the approved security plan. No discrepancies were identified.

- Emergency Preparedness

The inspectors verified the operational readiness of the control room technical support center and operation support center. Non-routine events were reviewed to insure proper classification and appropriate emergency management involvement.

- Housekeeping and Plant Cleanliness

The inspectors monitored the status of housekeeping and plant cleanliness for fire protection and protection of safety-related equipment from intrusion of foreign material.

Plant Support Related Observations

While touring the plant the inspectors observed several instances of poor radiation worker practices. The following examples were observed:

- A mechanical maintenance worker handling tools (that had just been removed from inside the contaminated area) inside a step-off-pad area with bare hands.
- A mechanical maintenance worker handing a potentially contaminated part over a contamination boundary into a bag. The part should have been bagged inside the contamination boundary.
- An individual lying on the floor in a contaminated area in the Unit 3 East low pressure coolant injection (LPCI) room.

- A hose crossing a contaminated boundary without being secured or taped.
- Improper setup of a contaminated area.
- An electrical mechanic standing on the handrail of the refuel bridge leaning over the flooded reactor cavity.

In addition, the inspectors had a concern over the direct handling of radioactive filters removed from some decontamination equipment. The above concerns are considered an Unresolved Item (50-237/249-94005-06 (DRP)).

In two of the above examples one or more supervisors were observing the work in progress but failed to take appropriate action to preclude or rectify the situation. These supervisors were not fulfilling management's expectations. Another example, though minor, was the lack of enforcement of the modesty garment policy by supervisors, even though supervisors were aware some workers were not complying. The lack of management emphasis in ensuring first and second line supervisors were implementing expectations was a weakness.

The inspectors observed one exception to the above. The shift outage manager identified a concern with the individual standing on the handrail of the refuel bridge just prior to the arrival of the inspectors, and expressed this concern to the foreman in charge.

No violations or deviations were identified. One unresolved item was identified regarding poor radiation worker practices.

## 7. Safety Assessment and Quality Verification (SAQV) (40500)

The effectiveness of management controls, verification and oversight activities in the conduct of jobs observed during this inspection period were evaluated. Management and supervisory meetings involving plant status were attended to observe the coordination between departments. The results of licensee corrective action programs were routinely monitored by attendance at meetings, discussion with plant staff, review of deviation reports, and root cause evaluation reports.

### SAQV Related Events

The inspectors reviewed the licensee's problem identification forms to monitor the conditions related to plant or personnel performance and potential trend. The licensee implemented a trend data form as part of the PIF program in order to improve trend information and limit resources expended on problem identification.

The inspectors observed some improvement in the licensee's self assessment and problem resolution capability:

- The improvements described in paragraph 3.g were within the operations department.
- The Station Quality Verification department identified some significant issues with the replacement of the shutdown cooling pump motors and with the performance of the maintenance contractors.
- The relationship between management and the bargaining unit has improved significantly, which has assisted in problem resolution.
- The event screening committee has identified some issues which required further evaluation and has assigned departments to investigate. One example was a concern over the number of security badge control events, which was assigned to security to evaluate the trend and provide recommendations to the station.

No violations or deviations were identified.

8. Licensee Actions on Previous Inspection Findings 92701, and 92702)

(Closed) Violation (50-237/91016-02(DRP)): Inadequacies in the instrument calibration program. The licensee completed an instrument database in April 1993 and has completed the setpoint reconciliation for safety related instruments. The inspectors had no concerns with the status of this program. This item is closed.

(Closed) Violation (50-237/93011-01(DRP)): Failure to maintain adequate control of equipment. The inspectors reviewed the new out-of-service program, the results of operator implementation of the program, and the out-of-service computer program. This item is closed.

(Closed) Unresolved Item (50-237/92013-02(DRP)): Review adequacy of Dresden Administrative Procedure (DAP) 15-06, "Preparation, Approval and Control of Work Requests" in regard to 10 CFR 50, Appendix B. The procedure did not require the documentation of as-found and as-left data, clear acceptance or rejection criteria, or restrict the use of work instructions with multiple actions in individual steps. The licensee revised the procedure to address the inspectors' concerns. The inspectors observed maintenance on the Unit 3 battery charger (WR D24531) and reviewed the documentation of that maintenance. The inspectors had no concerns regarding the procedure. The inspectors had several concerns with the actual documentation of the maintenance which are discussed in paragraph 4.a. This item is closed.

(Closed) Unresolved Item (50-249/92032-08(DRP)): Review the corrective actions for failing to follow procedural steps for the post maintenance testing of the 3A low pressure core injection pump. The inspectors considered this to be another example of the unresolved item discussed in paragraph 4.a. This item is closed.

(Closed) Unresolved Item (50-237/93012-01(DRP)): Review the placement and removal of shutdown safety management protected pathway signs. The failure to adequately control the placement and removal of protected pathway signs was considered a weakness in the implementation of the shutdown safety program. The inspectors reviewed procedure DAP 18-05, "Shutdown Risk Management." The procedure required logging of the placement and removal of the signs. The inspectors reviewed the log and walked down the signs. The signs were hung as required and were removed as indicated in the log. The inspectors had no further concerns. This item is closed.

(Closed) Unresolved Item (50-237/93017-02(DRP)): Unapproved installation of insulation. The licensee determined that the TEMPMAT insulation was not appropriate for use in the drywell. The licensee removed all inappropriate insulation from the Unit 2 and 3 drywells. The licensee revised the insulation procedure. This item is closed.

(Closed) Unresolved Item (50-237/93020-02(DRP)): Review of the licensee's root cause and corrective actions concerning discrepancies in core spray lineup procedures. This is discussed in paragraph 3.e. This item is closed.

(Closed) Unresolved Item (50-237/93034-04(DRP)): Leak rate testing of main steam isolation valves. The inspectors reviewed the recent Unit 3 main steam isolation valve testing and had no concerns. This item is closed.

(Closed) Inspector Follow-up Item (50-237/91025-01(DRP)): Adequacy of safety-related contact testing. The licensee performed a review of safety-related contacts to determine which contacts were included in surveillance tests. The review covered approximately 12,000 contacts and showed 900 technical specification contacts and 800 UFSAR contacts were untested. As a result of the review, procedures were either created or revised to test the previously untested contacts. These procedures have been implemented except for the surveillances performed during refuel outages. These surveillances will be completed during the current outage for Unit 3, and during the spring of 1995 for Unit 2. This item is closed.

(Closed) Inspector Follow-up Item (50-237/92032-03(DRP)): Main steam isolation valve solenoid lights. The inspectors reviewed a design change for installation of indicator lights which would allow confirmation of solenoid energization. This installation will be completed on Unit 3 during the current outage, and on Unit 2 during the spring 1995 outage.

(Closed) Inspector Follow-up Item (50-237/93011-05(DRP)): Effectiveness of Quality First program. The inspectors reviewed the advertising of the Quality First program and had no concerns. This item is closed.

(Closed) Inspector Follow-up Item (50-237/93017-03(DRP)): Drywell dampers found wired shut. The licensee was unable to determine when the



dampers were wired shut. The incorrect damper positions were not detected during system walkdowns and resulted in increased drywell temperatures and a Unit 2 shutdown. The licensee performed a walkdown resolved identified required maintenance and other discrepancies. This item is closed.

No deviations or violations were identified.

9. Licensee Event Reports (LERs) Follow-up (92700)

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.

(Closed) LER 237/92034, Revision 3: Standby gas treatment system above normal limits due to loss of instrument air. The inspectors reviewed the results of the analysis and had no further concerns. This LER is closed.

(Closed) LER 237/93003, Revisions 0 and 1, LER 237/93026, Revision 0: Main steam isolation valve leakage. The licensee identified seat leakage in the "A" main steam line during January 1993. The outboard isolation valve was repaired and tested satisfactorily, but failed the test again in October 1993. The inspectors reviewed the licensee's actions and had no concerns. This LER is closed.

(Closed) LER 237/93004, Revision 0: Main Steam line Temperature Switches outside Technical Specification Limit Due to Setpoint Drift. The licensee had installed bi-metallic temperature switches (not electrically connected) on Unit 2 to determine the performance of these switches. The licensee planned to replace the F-100 temperature switches with bi-metallic switches during the next Unit 2 refueling outage. This LER is closed.

(Closed) LER 237/93008, Revisions 0 and 1: Trip of Bus 29 Feed Breaker to Motor Control Centers 29-2 and 29-4 Due to Unknown Cause. The licensee's initial investigation was documented in Inspection Report 237/249-93020(DRP). The licensee had performed resistance reading, load monitoring, load simulation on the 2B reactor protection system (RPS) motor generator (MG) set, and review of ground detectors and cable routing. The feed breaker was replaced with a breaker equipped with a RMS-9 solid state static trip device. The failure analysis of the dashpot did not indicate any failure of the device but found the device to be out-of-adjustment. Following the switchgear cable megger test and breaker replacement, the 2B RPS MG set was re-aligned to the RPS bus. No conclusive root causes were reached based on the extensive effort of troubleshooting. This LER is closed.

(Closed) LER 249/92025, Revisions 0 and 1: Reactor Scram Caused by Turbine Invalid Trip Signal #3 Bearing as a Result of Electronic Card Failure in Turbine Vibration Control Circuitry. This LER is closed.

(Closed) LER 237/92044, Revision 0: Primary Containment Isolation Valve Closure Due to Shutdown Cooling System Spurious Isolation. The isolation was caused by a spurious high reactor recirculation temperature signal from a faulty thermocouple. The card was replaced. This LER is closed.

(Closed) LER 249/93004, Revision 0: Manual Scram Due to Loss of Instrument Air. The licensee had replaced 3A dryer inlet and exhaust valves, the inlet and exhaust solenoid valves and the cross-tie valve air pressure regulator and solenoid relief valve. In addition, the licensee also revised Dresden Operating Surveillance Procedure (DOS) 4700-01, "Quarterly Service air to Instrument Air Auto Cross-Tie Test," to include acceptance criteria for testing service air cross-tie valves. This LER is closed.

(Closed) LER 249/93005, Revision 0: Failure of the Drywell Vent Valve 3-1601-63 Due to a Degraded O-Ring on the Two Way Versa Valve. The licensee replaced the failed two-way versa valve. In addition, the replacement or rebuilding of the two-way versa valve had been scheduled every three refueling outages in the Dresden general surveillance program. This LER is closed.

(Closed) LER 249/93006, Revisions 0 and 1: Type B and C Primary Containment Local Leak Rate Testing Limit Exceeded Due to Leakage Past Inboard Feedwater Check Valve 3-220-58A. The licensee replaced the seat, disk, and hinge pin and bushing on the inboard "A" feedwater check valve 3-220-58A. The post maintenance local leak rate result was 0.10 scfh. In addition, the licensee replaced the traversing incore probe purge check valve 3-47990514 with a new check valve. The final as-left leakage was 1.80 scfh.

The cause of the unsatisfactory leakage past the purge check valve was unknown because the original valve was lost after replacement. No physical control was in place for parts awaiting for root cause analysis. The issue of controlling components removed from systems for root cause analysis will be reviewed during review of Violation 50-237/249-94002. This LER is closed.

(Closed) LER 249/93008: Suppression Pool Temperature Monitoring Element Conduit Support Found Outside Design Criteria Allowables. The torus temperature element TE 3-1641-211, which was missing a support, was operable but outside design criteria allowables. The licensee had restored the conduit to its original design per work request 16485. This LER is closed.

No violations or deviations were identified.

10. Management Meetings (30703)

On March 27, Mr. J. Martin, Regional Administrator, Region III, Mr. W. Russell, Director, Office of Nuclear Reactor Regulation (NRR), Mr. J. Roe, Director, Division of Reactor Projects III/IV, NRR, Mr. W. Axelson, Director, Division of Radiation Safety and Safeguards, Region III, and other NRC management toured the Unit 1 containment sphere and fuel handling building. Following the tour, NRC management met with Mr. G. Spedl, Station Manager, and discussed improvement plans for Unit 1.

No violations or deviations were identified.

11. Inspector Follow-up Items

Inspector follow-up items are matters which have been discussed with the licensee which will be reviewed further by the inspector and which involve some action on the part of the NRC or licensee or both. One inspector follow-up item disclosed during this inspection is discussed in paragraph 3.a.

12. Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable items, items of noncompliance or deviations. Four unresolved items disclosed during this inspection are discussed in paragraphs 3.g, 4.a, 5.c, and 6.

13. Exit Interview (30703)

The inspectors met with licensee representatives (denoted in paragraph 1) throughout the inspection period and at the conclusion of the inspection on April 11, 1994, to summarize the scope and findings of the inspection activities. The licensee acknowledged the inspectors' comments. The inspectors also discussed the likely informational content of the inspection report with regard to documents or processes reviewed by the inspectors during the inspection. The licensee did not identify any such documents or processes as proprietary.