

U.S. NUCLEAR REGULATORY COMMISSION  
REGION III

Report Nos. 50-373/92003(DRP); 50-374/92003(DRP)

Docket Nos. 50-373; 50-374

License Nos. NPF-11; NPF-18

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

Facility Name: LaSalle County Station, Units 1 and 2

Inspection At: LaSalle Site, Marseilles, Illinois

Inspection Conducted: January 15 through February 20, 1992

Inspectors: D. Hills  
C. Phillips  
J. Roman of Illinois Department of Nuclear Safety

Approved By: B. L. Burgess, Chief  
Reactor Projects Section 1B

FEB 28 1992  
Date

Inspection Summary

Inspection from January 15 through February 20, 1992 (Report Nos. 50-373/92003 (DRP); 50-374/92003(DRP)).

Areas Inspected: Routine, unannounced safety inspection by the resident inspectors of previous identified items; licensee event reports followup; regional requests; operational safety verification; monthly maintenance observation; monthly surveillance observation; refueling activities; and report review.

Results: No violations were identified. One unresolved item was identified regarding the criteria utilized to determine emergency diesel generator valid tests and failures (Paragraph 7). One open item was identified in regard to review of the licensee's conclusions as to cause of the higher than expected dose rates during the Unit 2 refueling outage (Paragraph 5.b).

Plant Operations

Performance in this area remained constant with no major problems observed with regard to operational activities.

### enance/Surveillance

erous outage related activities were observed with no major problems noted. However, the licensee's determination of emergency diesel generator valid tests and failures required further review and is an unresolved item.

### Radiological Controls

Formation of a dose reduction task force to determine the reason for increased dose rates during the Unit 2 refueling outage was a good management initiative. However, several incidents of poor radiological control practices occurred during this report period.

### Safety Assessment/Quality Verification

Minor radiological spill events continued during the Unit 2 refueling outage. These represented a continuation of a previous adverse trend for which licensee actions had not been entirely effective.

### Maintenance/Surveillance

Numerous outage related activities were observed with no major problems noted. However, the licensee's determination of emergency diesel generator valid tests and failures required further review and is an unresolved item.

### Radiological Controls

Formation of a dose reduction task force to determine the reason for increased dose rates during the Unit 2 refueling outage was a good management initiative. However, several incidents of poor radiological control practices occurred during this report period.

### Safety Assessment/Quality Verification

Minor radiological spill events continued during the Unit 2 refueling outage. These represented a continuation of a previous adverse trend for which licensee actions had not been entirely effective.

## DETAILS

### 1. Persons Contacted

- \*G. J. Diederich, Manager, LaSalle Station
- \*W. R. Huntington, Technical Superintendent
- \*J. V. Schmeitz, Production Superintendent
- D. S. Berkman, Assistant Superintendent, Work Planning
- H. Hentschel, Assistant Superintendent, Operations
- J. Walkington, Services Director
- J. Lockwood, Regulatory Assurance Supervisor
- M. Santic, Assistant Superintendent, Maintenance
- W. Betourne, Quality Assurance Supervisor
- \*L. Atchley, Operations Engineer
- \*T. L. Nauman, Site Engineer
- \*J. A. Borm, Nuclear Quality Programs
- \*B. Wood, Nuclear Safety
- \*J. Ahlman, Regulatory Assurance
- \*G. McCallum, Lead Nuclear Engineer
- \*J. Gieseke, Technical Support Supervisor

\*Denotes those attending the exit interview conducted on February 20, 1992, and at other times throughout the inspection period.

The inspectors 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 maintenance personnel; and contract security personnel.

### 2. Licensee Action on Previously Identified Items (92702)

(Closed) Open Item (373/90014-01; 374/90015-01): Review licensee's resolution of scram valve diaphragm failures. Anchor Packing diaphragm replacements were more prone to tearing as they were of a different material and bolt configuration than the original diaphragms. The replacement parts were procured as non-safety related. The licensee's equipment classification review determined that failure would not affect the valve's safety-related function. The licensee discontinued usage of these particular diaphragm replacements and intended future change out of those already installed. The inspector has no further concerns in this area.

(Closed) Unresolved Item (373-90012-01): "Use of Manual Valves in Calculation of Minimum Pathway Results." This item was sent to the Office of Nuclear Reactor Regulation (NRR) for resolution. It is being tracked by TIA # 86-41B. As neither the licensee nor the region has responsibility for resolution of this item, the unresolved item is being closed. The licensee will be informed of NRR's conclusions, once resolution has been reached.

No violations or deviations were identified in this area.

3. Licensee Event Reports Followup (90712 and 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. Based on this review, it was determined that the event was of minor safety significance and was properly compensated for.

(Closed) LER 374/92001-00 Spurious Level 2 Primary Containment Isolation System Trip Leaking Isolation Valve

No violations or deviations were identified in this area.

4. Regional Requests (92701)

On November 9, 1991, Salem Unit 2 had two low pressure turbines fail due to failure of the emergency trip solenoid valve and the two overspeed protection controller solenoid valves. The inspectors verified that these same valves (Parker solenoid valves) were not utilized at LaSalle.

Oconee Unit 3 experienced an unisolable reactor coolant system leak due to a Swaglok compression fitting failure on a 3/4 inch instrument line. Compression fittings were installed on all reactor parameter monitoring instruments at LaSalle. The licensee indicated that all have isolation valves in the lines upstream of the compression fittings.

No violations or deviations were identified in this area.

5. Operational Safety Verification (71707)

During the inspection period, the inspectors verified daily, and randomly during back shift and on weekends, that the facility was being 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. This was done on a sampling basis through routine direct observation of activities and equipment, tours of the facility, interviews and discussions with licensee personnel, independent verification of safety system status and limiting conditions for operation action requirements (LCOs), corrective action, and review of facility records.

During tours of accessible areas of the plant, the inspectors made note of general plant and equipment conditions, including control of activities in progress (maintenance and surveillance), observation of shift turnovers, general safety items, etc. The specific areas observed were:



a. Engineered Safety Features Systems

Accessible portions of ESF systems and components were inspected to verify: valve position for proper flow path; proper alignment of power supply breakers; proper removal of power from components if required by TS or UFSAR; and the operability of support systems essential to system actuation or performance through observation of instrumentation and/or proper valve alignment. The inspectors also visually inspected components for leakage, proper lubrication, and cooling water supply.

b. Radiation Protection Controls

The inspectors verified that workers were following health physics procedures for dosimetry, protective clothing, frisking, posting, and randomly examined radiation protection instrumentation for use, operability, and calibration. Several incidents of poor radiological control practices occurred. These will be reviewed in another inspection report (373/92006(DRSS); 374/92006(DRSS)).

The licensee noted a higher than expected source term during the Unit 2 refueling outage despite the "soft shutdown" performed. The dose rates in the Unit 2 drywell (and parts of the reactor building) had consistently been higher than those in Unit 1. These dose rates increased each refueling outage. The licensee formed a dose reduction task force to determine the mechanism causing the elevated dose rates and to recommend remedies by June 15, 1992. The inspectors regarded this as a good management initiative. Review of the completed evaluation and resulting licensee actions is considered an open item (374/92003-01(DRP)).

c. Security

Each week during routine activities or tours, the inspector monitored the licensee's program to ensure that observed actions were being implemented according to their approved security plan. The inspector noted that persons within the protected area displayed proper photo-identification badges and those individuals requiring escorts were properly escorted. The inspector also verified that checked vital areas were locked and alarmed. Additionally, the inspector also verified that observed personnel and packages entering the protected area were searched by appropriate equipment or by hand.

d. Housekeeping and Plant Cleanliness

The inspectors monitored the status of housekeeping and plant cleanliness for fire protection, protection of safety-related equipment from intrusion of foreign matter and general protection of equipment from hazards. The inspectors also monitored various records, such as tagouts, jumpers, shift logs and surveillances,

daily orders, maintenance items, various chemistry and radiological sampling and analysis, third party review results, overtime records, QA and/or QC audit results, and postings required per 10 CFR 19.11.

No violations or deviations were identified in this area.

6. Monthly Maintenance Observation (62703)

Station maintenance activities affecting the safety-related systems and components listed below were observed/reviewed to ascertain that they were conducted in accordance with approved procedures, regulatory 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.

The following maintenance activities were observed and reviewed:

Unit 1

WR L12933 Trouble Shoot and Repair Reactor Core Isolation Cooling (RCIC) Minimum Flow Valve Following Trip of the Motor Breaker

Unit 2

WR L13396 Trouble Shoot and Repair the "2B" Diesel Generator  
WR L08894 Flush Hotwell Level Control Level Instrument Lines  
WR L10676 Inspect Various Wire Lugs in "0" Diesel Generator Control Panel DG02JB  
WR L02280 Replace the Unit 2 Division III 125 Volt DC Batteries  
WR L02278 Replace the Unit 2 Division III 125 Volt DC Battery Charger  
WR L07325 Clean Bus 235Y Cubicles  
WR L97340 Replace the Unit 2 24/48 Volt Batteries  
WR L74172 Replace the Unit 2 Division II 125 Volt DC Batteries  
WR L08037 Perform LMS-DG-01 on the "2A" Diesel Generator  
WR L07893 Perform LMS-DG-01 on the "2B" Diesel Generator

The inspectors monitored the licensee's work in progress and verified that it was being performed in accordance with proper procedures, and

approved work packages, that applicable drawing updates were made and/or planned, and that operator training was conducted in a reasonable period of time.

Two contaminated spill events occurred during work activities. The safety significance of these individual events was minimal since the water was collected in plant drains, no personnel contaminations resulted, and radiological response was adequate. However, these represented continuation of concerns regarding the number of spill occurrences the previous year as discussed in inspection report 373/91013; 374/91013. Another spill occurred earlier in the Unit 2 refuel outage and is being tracked as an unresolved item 374/91025-01. The previous spills were of various causes, not all were related to maintenance/modification activities. The inspectors are continuing to monitor this trend and licensee corrective actions.

On January 18, 1992, during opening of the Unit 2 high pressure core spray line to perform a modification, approximately 600 gallons of water spilled out of the suction line when the flange connection was broken. The drain line configuration formed a loop seal, causing approximately half the suction line volume to remain after draining. Precautions taken to control residual water leakage while opening the connections were insufficient, as the potential for a loop seal had not been identified. The licensee planned to evaluate alternate drain paths for this and similarly configured systems.

On January 24, 1992, during disassembly of feedwater valve 2FW011B, approximately 200 gallons of water spilled. The drain was at a higher elevation than the valve, leaving some water following system draining. A basin was used to catch residual water when loosening the valve bonnet bolts. Once leakage had stopped, the remaining bolts were removed. The workers were not aware of the existence of a pressure seal on this type of valve. The spill occurred when the pressure seal was broken. Maintenance Memorandum No. 36, "Maintenance Practices for Bolted System Components (Valves, Pumps, Flanges)" issued on January 28, 1992, described acceptable unbolting practices for disassembly of mechanical flanged type joints. It also required the work analyst to include the practices in the work instructions for known problem conditions or when it is not possible to drain the piping or components.

No violations or deviations were identified.



7. Monthly Surveillance Observation (61726)

The inspectors observed surveillance testing required by Technical Specifications during the inspection period 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 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 inspectors witnessed portions of the following test activities:

Unit 1

LOS-RI-Q3 Unit 1 RCIC System Pump Operability and Valve Inservice Test in Conditions 1, 2, and 3  
LOS-DG-M2 "1A" Diesel Generator Operability Test  
LOS-VG-M1 Standby Gas Treatment Operability Test and Inservice Test of IVG001 and IVG003

Unit 2

LTS-800-201 "0" Diesel Generator Start and Load Acceptance Surveillance  
LTS-800-7 "0" Diesel Generator Trips and Trips Bypass Test  
LOS-DG-M1 "0" Diesel Generator Operability Test  
LES-DC-103C Division III Battery Charge Capacity Test

The inspectors noted several failures during diesel generator operability surveillances following maintenance.

- . On December 18, 1991, the diesel generator "2A" cooling water pump breaker automatically tripped causing the diesel generator to be manually shut down. When returning the pump to service following maintenance, the breaker racking mechanism had not been slid out completely.
- . On January 18, 1992, diesel generator "0" output breaker to Unit 2 failed to close. The actuator for the test control switch in the breaker cubicle was sticking in the local test position which did not allow remote closing of the breaker.
- . On February 1, 1992, diesel generator "2A" speed control circuitry failed due to the cooling water line leaking onto the governor. The diesel generator had passed several maintenance runs prior to the operability run.
- . On February 13, 1992, diesel generator "2B" tripped due to a reverse power relay failure. The relay had been calibrated during the diesel generator maintenance outage.

Technical specification table 4.8.1.1.2-1 prescribed that the criteria for determining number of failures and number of valid tests be in accordance with Regulatory Position C.2.e of Regulatory Guide 1.108, Revision 1, August 1977 on a per diesel generator basis. The licensee did not categorize any of these as valid failures such that they would be reflected in test schedule determinations. This is considered an unresolved item (374/92003-02(DRP)) pending completion of a detailed review of these failures with respect of Regulatory Guide 1.108 and reporting requirements.

No violations or deviations were identified.

8. Refueling Activities (60710)

The inspector verified that refueling activities were being conducted and controlled as required by Technical Specifications and approved procedures. This was done on a sampling basis through direct observation of activities and equipment, tours of the facility, interviews and discussions with licensee personnel, and independent verification of safety system status and limiting conditions for operation action requirements (LCOs). The inspector observed fuel movement during core unloading to verify core alternations were being performed in a safe manner.

No violations or deviations were identified in this area.

9. Report Review (90713)

During the inspection, the inspector reviewed licensee reports and determined that the information was technically adequate, and that it satisfied the reporting requirements of the license, Technical Specifications and/or 10 CFR as appropriate.

No violations or deviations were identified in this area.

10. Open Items

Open 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 open item disclosed during the inspection is discussed in Paragraph 5.b.

11. Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable items, violations, or deviations. An unresolved item disclosed during the inspection is discussed in Paragraph 7.

12. Exit Interview

The inspectors met with licensee representatives (denoted in Paragraph 1) during the inspection period and at the conclusion of the inspection period on February 20, 1992. The inspectors summarized the scope and results of the inspection and discussed the likely content of this inspection report. The licensee acknowledged the information and did not indicate that any of the information disclosed during the inspection could be considered proprietary in nature.