Commonwealth Edison Company
LaSalle Generating Station
2601 North 21st Road
Marseilles, IL 61341-9757
Tel 815-357-6761

ComEd

September 21, 1995

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555

This supplement to Licensee Event Report #95-006-01, Docket #050-374, is being submitted to your office in accordance with 10CFR50.73(a)(2)(i)(B).

Sincerely,

D. J. Ray
Station Manager
LaSalle County Station

DJR/WJS/lja

Enclosure

cc: H. J. Miller, NRC Region III Administrator
P. G. Brochman, NRC Senior Resident Inspector
R. J. Zuffa, IDNS Resident Inspector
F. Niziolek, IDNS Senior Reactor Analyst
INPO - Records Center
D. L. Farrar, Nuclear Regulatory Services Manager

020059





IE22

NRC FORM 366 (5-92) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB NO. 3150-0104
EXPIRES 5/31/95

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

# LICENSEE EVENT REPORT (LER)

| FACILITY NAME (1) | DOCKET NUMBER (2) | PAGE (3) |
|---|---|---|
| LaSalle County Station Unit 2 | 05000374 | 1 OF 4 |

TITLE (4)
Primary Containment Maximum Allowable Leakage Exceeded Due to LLRT Failure

| EVENT DATE (5) | | | LER NUMBER (6) | | | REPORT DATE (7) | | | OTHER FACILITIES INVOLVED (8) | |
|---|---|---|---|---|---|---|---|---|---|---|
| MONTH | DAY | YEAR | YEAR | SEQUENTIAL NUMBER | REVISION NUMBER | MONTH | DAY | YEAR | FACILITY NAME | DOCKET NUMBER |
| 03 | 02 | 95 | 95 | -- 006 -- | 01 | 09 | 21 | 95 | None | |
| | | | | | | | | | FACILITY NAME | DOCKET NUMBER |

| OPERATING MODE (9) | 5 |
|---|---|
| POWER LEVEL (10) | 000 |

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | 20.2201(b) | | 20.2203(a)(3)(i) | | 50.73(a)(2)(iii) | | 73.71(b) |
| | 20.2203(a)(1) | | 20.2203(a)(3)(ii) | | 50.73(a)(2)(iv) | | 73.71(c) |
| | 20.2203(a)(2)(i) | | 20.2203(a)(4) | | 50.73(a)(2)(v) | | OTHER |
| | 20.2203(a)(2)(ii) | | 50.36(c)(1) | | 50.73(a)(2)(vii) | | (Specify in Abstract below and in Text, NRC Form 366A) |
| | 20.2203(a)(2)(iii) | | 50.36(c)(2) | | 50.73(a)(2)(viii)(A) | | |
| | 20.2203(a)(2)(iv) | X | 50.73(a)(2)(i) | | 50.73(a)(2)(viii)(B) | | |
| | 20.2203(a)(2)(v) | | 50.73(a)(2)(ii) | | 50.73(a)(2)(x) | | |

LICENSEE CONTACT FOR THIS LER (12)

| NAME | TELEPHONE NUMBER (Include Area Code) |
|---|---|
| William J. Siwiec, System Engineer, Extension 2575 | (815) 357-6761 |

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

| CAUSE | SYSTEM | COMPONENT | MANUFACTURER | REPORTABLE TO NPRDS | | CAUSE | SYSTEM | COMPONENT | MANUFACTURER | REPORTABLE TO NPRDS |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |
| | | | | | | | | | | |

| SUPPLEMENTAL REPORT EXPECTED (14) | | | EXPECTED SUBMISSION DATE (15) | MONTH | DAY | YEAR |
|---|---|---|---|---|---|---|
| | YES (If yes, complete EXPECTED SUBMISSION DATE). | NO | | | | |

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On March 20, 1995, while Unit 2 was in its sixth refuel outage (L2R06), tne maximum allowable primary containment leakage rate was exceeded during the performance of a Local Leak Rate Test. The 2RE024 and 2RE025 Drywell Equipment Drain Sump Containment Isolation Valves were determined to be leaking excessively. The 0.6 La maximum allowable total primary containment Minimum-Pathway leak rate of 231.4 scfh was exceeded per 10CFR50 Appendix J and Technical Specification 3.6.1.2.b, Primary Containment Integrity.

The source of the excessive leakage was determined to be seat leakage occurring through both valves. Table 1 lists Primary Containment Isolation Valves which failed to meet acceptance criteria during the course of the Unit 2 Refuel Outage. The cause of the excessive leakage through these and all other Primary Containment Valves repaired throughout the outage are described in Table 2. The 2RE024 and 2RE025 Drywell Equipment Drain Sump Containment Isolation Valves were repaired prior to Unit 2 startup from L2R06.

This event is reportable pursuant to 10CFR 50.73(a)(2)(i)(B) due to a condition prohibited by the plant's Technical Specification.

PLANT AND SYSTEM IDENTIFICATION

General Electric - Boiling Water Reactor

Energy Industry Identification System (EIIS) codes are identified in the text as [XX].

A. CONDITION PRIOR TO EVENT

Unit(s): 2 Event Date: 03/20/95 Event Time: 1600 Hours

Reactor Mode(s): 5 Modes(s) Name: Defueled Power Level(s): 0%

B. DESCRIPTION OF EVENT

On March 20, 1995, while Unit 2 was in its sixth refuel outage (L2R06), the maximum allowable Primary Containment (PC)[NH] leakage rate was exceeded during the performance of a Local Leak Rate Test. The 2RE024 and 2RE025 Drywell Equipment Drain (RE)[WK] Sump Containment Isolation Valves had been Local Leak Rate Tested per LaSalle Technical Surveillance Procedure LTS-100-18. The leakage rate was determined to be excessive (test volume could not be pressurized) and was determined to be occurring through both 2RE024 and 2RE025 Containment Isolation Valves. The 0.6 La maximum allowable total primary containment Minimum-Pathway leak rate of 231.4 scfh was exceeded per 10CFR50 Appendix J and Technical Specification 3.6.1.2.b, Primary Containment Integrity.

The L2R06 total as-found minimum-pathway 0.6 $L_a$ criteria of 231.4 scfh was exceeded as the as-found total was found to be indeterminate as a result of the 2RE024 and 2RE025 Containment Isolation Valves' LLRT Failures. The source of the excessive leakage was determined to be seat leakage occurring through both valves. Table 1 lists Primary Containment Isolation Valves which failed to meet acceptance criteria during the course of the Unit 2 Refuel Outage L2R06. The cause of the excessive leakage through these and all other Primary Containment Valves repaired through the outage are described in Table 2. The total as-left 0.6 $L_a$ Leak Rate prior to Unit 2 startup from L2R06 was 112.231 scfh, approximately 50% of the allowable Technical Specification limit of 231.4 scfh.

C. CAUSE OF EVENT

This event is reportable pursuant to 10CFR 50.73(a)(2)(i)(B) due to a condition prohibited by the plant's Technical Specifications.

The cause of the event was due to apparent seat leakage past both the 2RE024 and 2RE025 containment isolation valves.

D. SAFETY ANALYSIS

The safety consequences of this event were minimal With respect to the 2RE024 and 2RE025 valves, the drywell RE sump would normally be filled with water. Although sump level may vary, the water would tend to seal any air leakage. In the event that air leakage eventually occurred through the containment isolation valves, the downstream piping is normally filled with water and provides additional isolation with normally closed automatic valves that are designed to open with pump flow.

These valves, while they represent a substantial portion of the total measured leakage for the primary containment, would contribute little or nothing to a radiological release under accident conditions.

E. CORRECTIVE ACTIONS

In the course of performing Local Leak Rate Tests during the L2R06 outage, other valves were found to have exceeded administrative leakage limits. These valves were repaired to bring the 0.6 $L_a$ total containment leakage below the Technical Specification limit of 231.4 scfh prior to Unit 2 startup from L2R06.

LaSalle Station has taken corrective actions to resolve recurring containment isolation valve failures. As a result of these efforts, the total allowable containment Minimum-Pathway leakage rate had not been exceeded since 1990 during Unit 2 refuel outage L2R03. These corrective actions are detailed in Table 2.

F. PREVIOUS OCCURRENCES

| LER Number | Title |
|---|---|
| 373/83-107/03L-0 | Total containment maximum allowable (0.6 La) leak rate exceeded as a result of numerous containment isolation valve LLRT failures |
| 373/83-146/05X-1 | Failure of Feedwater Inboard check valve LLRT resulted in 0.6 La total containment maximum allowable leakage being exceeded |
| 373/84-012 | Total containment maximum allowable (0.6 La) leak rate was exceeded as a result of numerous containment isolation valve LLRT failures |
| 373/84-061-01 | Failure of Inboard Feedwater check valve LLRT resulted in 0.6 La total containment maximum allowable leakage being exceeded |
| 373/85-066-01 | Total containment Maximum allowable (0.6 La) maximum-path leak rate exceeded due to LLRT failure of Inboard Feedwater check valve |
| 374/87-002-01 | Total containment maximum allowable (0.6 La) leak rate was exceeded due to several LLRT failures |
| 373/88-002-01 | Total containment maximum allowable (0.6 La) leak rate was exceeded due to LLRT failures of Primary Containment Ventilation and Main Steam Inboard MSIV Drain Isolation valves |
| 374/89-013-01 | LLRT failure of Hydrogen Recombiner Combustible Gas Control Return valves resulted in total containment maximum allowable (0.6 La) leakage rate being exceeded |
| 374/90-004-01 | Total containment maximum allowable 0.6 La leak rate exceeded due to LLRT failure of Reactor Water Cleanup Suction and other containment isolation valves |

G. COMPONENT FAILURE DATA

| MANUFACTURER | NOMENCLATURE | MODEL NUMBER |
|---|---|---|
| ACF Industries | 2RE024 (AOV) 2" Globe | 70-29-1 DRTS |
| ACF Industries | 2RE025 (AOV) 2" Globe | 70-29-1 DRTS |

# TABLE 1

| Manufacturer | Nomenclature | Model Number |
|---|---|---|
| Clow Engineering | 2VQ026 (AOV) 26" Butterfly | 26" Wafer Stop Valve |
| Clow Engineering | 2VQ027 (AOV) 26" Butterfly | 26" Wafer Stop Valve |
| Anchor Darling | 2B21-F032B 24" 1500# Check | 3600-3 Tilt Disc Ck |
| Anchor Darling | 2G33-F040 (MOV) 4" Gate | 93-14403 |
| ACF Industries | 2RE024 (AOV) 2" Globe | 70-29-1 DRTS |
| ACF Industries | 2RE025 (AOV) 2" Globe | 70-29-1 DRTS |
| Anchor Darling | 2VP053A (MOV) 8" Gate | 93-14412 |
| Anchor Darling | 2HG005A (MOV) 6" Gate | 93-14409 |
| Rockwell | 2E51-F028 1.25" Check | 838YT |
| Anchor Darling | 2E51-F040 10" Check | 150# Lift Ck Globe |
| Anchor Darling | 2E32-F001A (MOV) 2.5" Gate | 93-14740 |
| Rockwell | 2B21-F028A (AOV) 26" Globe (MSIV) | 1612 JMMNTY |
| Anchor Darling | 2B21-F016 (MOV) 3" Gate | 94-13750 |
| Anchor Darling | 2B21-F019 (MOV) 3" Gate | 94-13751 |

# TABLE 2

All leakage values are in Standard Cubic Feet per Hour (SCFH).

*The limit for the Main Steam lines is 100 scfh for all four Main Steam Lines Combined.

| Valve | System | As Found | As Left | Admin Limit | Cause/Corrective Action |
|---|---|---|---|---|---|
| 2B21-F028A | MS | 42.52 | 1.02 | 100* | Leakage caused by divot on seating surface of main valve disc. Machined disc and seat to remove irregularities. |
| 2E32-F001A | LC | 42.52 | 1.02 | 100* | Found black hard scale on both seats and both sides of disc wedge. Cleaned seats and disc/removed scale. |
| 2B21-F032B | FW | 45.08 | 15.76 | 15.0 | Check valve air actuator packing leak. Inspected valve internals/Repacked. |
| 2G33-F040 | RT | 44.87 | 0.55 | 1.25 | Packing Leak. Broken bolt on packing gland ring. Repacked valve. Replaced broken hardware. Gear Ratio change. Increased torque switch setting/seating forces. |
| 2E51-F028 | RI | Infinite | 1.60 | 2.00 | Rust deposits found. Improper seating angle. Cleaned/lapped valve. Machined disc/seat to obtain proper seating angles. |
| 2E51-F040 | RI | 10.01 | 4.22 | 3.125 | Slightly dirty/filmy seating surfaces. Cleaned seating surfaces. |

**TABLE 2** (Continued)

| Valve | System | As Found | As Left | Admin Limit | Cause/Corrective Action |
|---|---|---|---|---|---|
| 2B21-F016 | MS | 6.48 | 0.00 | 0.937 | Flex wedge gate valve cut out and entirely replaced with double disc gate valve per scheduled modification due to problem history. |
| 2B21-F019 | MS | 6.48 | 0.00 | 0.937 | Flex wedge gate valve cut out and entirely replaced with double disc gate valve per scheduled modification due to problem history. |
| 2HG005A | HG | 24.19 | 1.20 | 1.875 | Position Indicating Rod/Locknut jammed against actuator stem nut. Repaired/Replaced stem nut. Cleaned stem. Installed larger motor per scheduled modification. |
| 2RE024 | RE | Infinite | 0.40 | 5.00 | Debris found on valve seats. Major packing leak. Resurfaced seating areas. Rebuilt actuato.. Repacked. Additionally, a plant modification was performed installing permanent screens in the Drywell Sumps to prevent foreign material intrusion into the RE piping and isolation valves. |

**TABLE 2** (Continued)

| Valve | System | As Found | As Left | Admin Limit | Cause/Corrective Action |
|---|---|---|---|---|---|
| 2RE025 | RE | Infinite | 0.40 | 5.00 | Seat was found damaged due to foreign material. Resurfaced seating areas. Rebuilt actuator. Repacked. Additionally, a plant modification was performed installing permanent screens in the Drywell Sumps to prevent foreign material intrusion into the RE piping and isolation valves. |
| 2VQ026 | VQ | 27.33 | 4.54 | 8.125 | Seat damage (scratches noted). Replaced seat wafer ring on disc. Refurbished Actuator. |
| 2VQ027 | VQ | 27.33 | 4.54 | 8.125 | Valve actuator spring found to be weak. Found dent on disc seat ring. Replaced seat wafer ring on disc. Refurbished actuator. Inspected/cleaned seating area. |
| 2VP053A | VP | 15.26 | 1.20 | 2.50 | Disc was found to be seating toe heavy (seating lower than required) and bonnet appeared to be leaking. Disc was cut to change seating angle Cleaned/reassembled. |