

U.S. NUCLEAR REGULATORY COMMISSION
REGION III

Report No. 50-373/92013(DRP); 50-374/92013(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: June 3 through July 20, 1992

Inspectors: D. Hills
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7/25/92
Date

Inspection Summary

Inspection from June 3 through July 20, 1992 (Reports No. 50-373/92013(DRP); 50-374/92013(DRP)).

Areas Inspected: A routine, unannounced safety inspection was conducted by the resident inspectors and an Illinois Department of Nuclear Safety inspector. The inspection included followup on previously identified items and licensee event reports; review of operational safety, monthly maintenance, and surveillance activities; safety assessment/quality verification; and report review.

Results: One violation was identified involving multiple examples of not adhering to fire protection program implementation procedures for compensatory measures, combustible storage, and transient combustible permits (paragraph 2, 4.a.(2), & 4.a.(3)).

Three unresolved items were identified. One involved discrepancies between operator rounds packages and security access records. Another involved environmental qualification of equipment in an abnormally configured primary containment electrical penetration outboard enclosure. The last involved scaffolding erected such as to inhibit access into panels required for operator emergency response actions.

Plant Operations

Performance in this area remained steady. However, a general failure of plant workers to place adequate emphasis on fire protection program implementation was noted. (Recent fire protection program implementation problems were also mentioned in inspection report 50-373/92008(DRP); 50-374/92008(DRP)). Two instances involving potential obstacles to operator emergency response actions were noted. One involved construction of scaffolding as to obstruct entry into a panel. The other involved insufficient guidance in annunciator procedures to compensate for a reactor building interlock design deficiency.

Maintenance/Surveillance

Performance remained steady in this area. Two failures of the same reactor core isolation cooling system containment isolation valve occurred within a month. Long term corrective actions will be evaluated in the next inspection period. A review of disabled and bypassed control room annunciators indicated corrective action timeliness for those due to failed equipment was reasonable.

Radiological Controls

Worker adherence to radiological controls appeared to be improving from the negative trend identified during the last refueling outage. This will be evaluated for long term effectiveness during the next refueling outage.

Safety Assessment/Quality Verification

Performance in this area remained steady. The licensee formed a task group, chaired by the plant manager to deal with procedure adequacy and adherence issues. The inspectors continued to follow resulting corrective actions and will evaluate effectiveness in future inspections. Increased sensitivity of plant personnel to fire protection implementation requirements during material condition inspections was needed. A review of the engineering backlog indicated the timeliness of most activities to be adequate with reasonable explanations for those delayed. Some occurrences categorized as informal reports would have been better served as deviation reports. The Onsite Nuclear Safety Group continued to provide comprehensive reviews and suggested extensive corrective actions.

DETAILS

1. Persons Contacted

- *G. J. Diederich, Manager, LaSalle Station
- *W. R. Huntington, Technical Superintendent
- *J. V. Schmeltz, 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
- *J. Beke, Technical Staff
- *W. Luett, Radiation Production
- *R. Vickers, Technical Staff
- *W. Steffes, Fire Marshall
- *J. Borm, Nuclear Quality Programs
- *B. Wood, Onsite Nuclear Safety
- *J. Koccek, Onsite Nuclear Safety
- *D. Legget, Operating Engineer
- *M. Cray, Instrument Maintenance Department
- *J. Watson, Nuclear Licensing
- *J. Bell, Maintenance Staff Supervisor
- *T. Shaffer, Training Supervisor
- *J. Giesecker, Project Manager
- *R. Shields, Technical Staff Supervisor

*Denotes those attending the exit interview conducted on July 20, 1992.

The inspectors also talked with and interviewed several other licensee employees during the course of the inspection.

2. Licensee Action on Previously Identified Items (92701 and 92702)

(Closed) Unresolved Item (373/92008-05(DRP)): On March 16-18, 1992, the inspectors noted an excessive quantity of trash (filled plastic bags and cardboard sheets) in a dry active waste (DAW) storage area on the 735' elevation of the turbine building, fire zone 5B4. The plant fire marshall estimated that approximately 200 bags had accumulated. An evaluation performed in 1990 (Action Item Request (AIR) 373-355-90-0003) established compensatory actions for specific fire loading levels in this area. The amount of DAW in the storage area exceeded the 125 bag limit specified in the AIR, during the March 16-18 time interval, and the required continuous fire watch had not been established. Periodic inspections (approximately 3 per week) of the area, which were routinely performed to ensure that adequate steps were taken at the limits specified in the AIR were apparently ineffective.

LaSalle Administrative Procedure (LAP)-900-18, "Use of Lumber and Other Combustibles in the Plant," Revision 7, Section F.8 required, in part,

that when combustible materials are moved into an area and the quantity exceeds the allowable limits, compensatory measures will be taken, as set by the Fire Marshall. The failure to establish the fire watch as delineated in the AIR is an example of a violation (50-373/92013-01a(DRP)) of Technical Specification 6.2.A.11, which required adherence to fire protection program implementation procedures.

The inspectors noted since the above violation occurrence, the quantity of DAW in the storage area routinely exceeded that requiring an hourly fire watch per the AIR. The fire watch was not an additional burden on the licensee, as the area already received an hourly fire watch through routine rounds. Although this did not technically violate NRC requirements, the inspectors expressed concern to plant management that the intent of the compensatory measures was to provide additional assurances of safety only until the deficient condition could be expeditiously rectified. Reliance upon the compensatory measures to justify a continual excessive and rectifiable fire load was not an acceptable safety practice. The inspectors plan to continue surveillance of this area during routine plant tours.

(Closed) Open Item (373/91017-01(DRP)): The "Supervisor Walkdown Prejob Checklist" of LaSalle Site Instruction (LSI)-03 made no mention of protecting the primary containment or protecting against an emergency safety features actuation. The licensee revised the checklist to address the noted weaknesses. This item is closed.

(Closed) Open Item (374/92003-01(DRP)): Review licensee's conclusions as to cause of the higher than expected dose rates during the Unit 2 refueling outage. This item was discussed in inspection report 50-373/92012(DRSS); 50-374/92012(DRSS) and is being tracked by open item 373/92012-01; 374/92012-01. As it is being tracked elsewhere, this item is closed.

(Closed) Open Item (373/92008-03(DRP)): Review licensee's evaluation of steam seal evaporator design adequacy. The inspectors reviewed the licensee's steam seal evaporator system assessment meeting minutes of April 30, 1992. A number of maintenance, testing, and design change recommendations were developed which were being evaluated by plant management. This item is closed.

(Closed) Violation (373/91015-01(DRP)): Inadequate reactor core isolation cooling special test procedure. This was a single use procedure which expired on July 31, 1991. A general information notice was issued to inform personnel of the event and to increase awareness of the review process. The licensee completed a study of the effectiveness of the special procedure preparation and approval process and concluded it was adequate. The inspectors concluded that this study was rather limited in scope. However, the inspectors more recently evaluated procedure adequacy on a more generic basis and a number of procedural weaknesses were identified. The licensee formed a single task group to deal with both the procedural adherence and adequacy issues. Task group actions and effectiveness are being tracked through open item 373/92008-

06(DRP) (for procedure adequacy) and violation 373/92008-01(DRP) (for procedural adherence). As continuing actions for this concern are being tracked elsewhere, this item is closed.

(Closed) Violation (373/91023-01(DRP)): Failure to promptly determine and correct the root cause for the diesel air start system check valve failures. The inspector reviewed the implementation of the corrective actions for this violation and found them to be satisfactory. This item is closed.

One example of a violation and no deviations were identified.

3. Licensee Event Reports Followup (92700)

The following licensee event reports were reviewed to ensure that reportability requirements were met, and that corrective actions, both immediate and to prevent recurrence, were accomplished in accordance with the technical specifications:

(Closed) LER 374/92003-00 Engineered Safety Feature Actuation During Excess Flow Check Valve Testing Due to Unknown Reasons

(Closed) LER 373/91014-01 Lost Station Vent Stack Particulate Composite Sample (July 1991) by Offsite Vendor

(Closed) LER 374/92005-00 2A Diesel Generator 2B/2C Low Pressure Cooling Injection (LPCI) and Reactor Core Isolation Cooling (RCIC) Auto-Start Due to Instrument Line Low Water Level Spike.

In addition, recent Deviation Reports (DVRs) were reviewed in order to monitor conditions related to plant or personnel performance and to detect potential development of trends. Appropriate generation and disposition of DVRs, in accordance with the Quality Assurance Manual, were also reviewed.

No violations or deviations were identified.

4. Operational Safety Verification (71707)

The inspectors reviewed the facility for conformance with the license and regulatory requirements.

- a. On a sampling basis the inspectors observed control room activities for proper control room staffing, coordination of plant activities; adherence to procedures or Technical Specifications; operator cognizance of plant parameters and alarms; electrical power configuration; and the frequency of plant and control room visits by station managers. Various logs and surveillance records were reviewed for accuracy and completeness.

Significant observations were:

- (1) As a result of incidents at other facilities delineated in Information Notice (IN) 92-30, "Falsification of Records," the inspectors evaluated licensee methods to detect record falsification. The licensee did not have a program to perform the type of review delineated in IN 92-30 to detect record falsification. As a result of IN 92-30, the Assistant Superintendent of Operations issued a letter to each operator to inform them of its contents and to remind them of station policy regarding record falsification.

The inspectors performed a review of operator rounds package entries for the weeks of March 2, 1992 (refueling outage) and May 4, 1992 (non-outage) for the reactor (including off-gas building), turbine, and auxiliary buildings. Although the arrangement of security card readers reduced the scope to limited few rooms in these areas and thus the effectiveness of this type review, the inspectors compared security computer access records to the rounds packages. Several apparent discrepancies involving multiple operators were identified.

Although none of the identified discrepancies were required Technical Specification surveillances, the majority did involve support equipment to Technical Specification systems. This is considered an unresolved item (50-373/92013-02 (DRP)) pending more specific review of the identified discrepancies.

- (2) At various times between June 23 and July 1, 1992, the following items were identified by the inspectors as not having the appropriate transient combustible permits as required by LAP-900-18, "Use of Lumber and Other Combustibles in the Plant."
 - a) Approximately 20 bundles of electrical cables were left unattended on the 735' level of the turbine building (fire zone 5B4);
 - b) a 55 gallon drum of grease (approximately 1/2 full) was left unattended on the 694' level of the Unit 2 reactor building (fire zone 3I1);
 - c) one 30 gallon drum of waste oil (approximately 1/3 full) was left unattended on the refueling floor (fire area 1);
 - d) one 30 gallon drum of waste oil was left unattended on the 710' level of the turbine building (fire zone 5C11);

- e) a large quantity of rubber air hoses (approximately 30) were left unattended in fire zone 5C11.

These are further examples of a violation (50-373/92013-01b-f(DRP)) of Technical Specification 6.2.A.11 which required adherence to fire protection program implementation procedures.

LAP-900-15, Attachment D, "Housekeeping/Material Condition Inspection Guidelines/Criteria" required, in part, that plant inspectors inspect areas for transient combustibles to ensure that any transient combustibles are identified with a fire permit tag (obtained after completion of a transient combustible permit form). These inspections were performed on a weekly basis. Since the majority of the items identified by the NRC inspectors had been in their present locations between several weeks to several months, the weekly inspections to identify untracked transient combustibles were apparently not effective. The inspectors stressed to plant management the need for increased sensitivity to fire protection requirements during the material condition inspections.

- (3) On June 26, 1992, the inspectors noted approximately 60 large bags of used ventilation filters stored on the 815' level of the auxiliary building (fire zone 4B). Safety related equipment in the area included the auxiliary electric equipment room ventilation system, the control room ventilation system, the control room emergency makeup filters, and the reactor building isolation dampers. The storage of used filters in this fire zone exposed the safety related equipment to an unnecessary fire hazard. The licensee subsequently removed the filters from the area. Filters were in storage in this area since March 30, 1992. LAP-900-18 prohibited the storage of combustible materials such as air filters in the plant except those allowed by the fire marshall, and required excess combustible materials to be removed following completion of the activity in safety related areas. A transient combustible permit had been obtained from the fire marshall for the filters, but through a miscommunication the filters were not removed when anticipated by the fire marshall. This is another example of a violation (50-373/92013-01g(DRP)) of Technical Specification 6.2.A.11 which required adherence to fire protection program implementing procedures.
- (4) On July 1, 1992, the inspectors observed the outboard enclosure cover for primary containment electrical penetration E-19 was not intact. Half of the bolts were missing and the remaining bolts were backed off such that a gap of about three inches existed between the cover and the remaining part of the enclosure. The licensee indicated that this was a long term condition necessitated by maintaining correct bend radius of wiring in the enclosure and that this condition was not limited to just this penetration. This is considered an unresolved item (50-373/92013-03(DRP)) pending review of this configuration affect upon

environmental qualification of contained components and seismic qualification of the enclosure.

- (5) On July 2, 1992, the inspector noted Unit 1 auxiliary electrical equipment room scaffolding was erected blocking the door to panel 1PA13J, "NSSSS Auxiliary Relay Cabinet Division I," such that it could not be opened far enough for jumper installation or lifting leads. Access to the cabinet to install jumpers and lift leads was needed for several emergency operating procedures to defeat containment isolations. A sign on the door indicated the cabinet was needed for support of the emergency operating procedures. LAP-900-28, "Erection, Inspection, and Use of Scaffolding and Ladders," step F.9 stated, "The Shift Engineer/Shift Supervisor/Work Planning Personnel/ or a specific individual identified as the scaffold coordinator by a letter from the Production Superintendent will inspect all areas where scaffolds are erected for interference with Plant Operations/Safe Operations of Plant Systems." The scaffold permit indicated this inspection was performed. The scaffold was in place since June 26, 1992. The scaffold inspection was insufficient as it failed to identify the actions called out in the emergency operating procedures could not be accomplished. This is an unresolved item (50-373/92013-04(DRP)) pending detailed review of the applicable procedures to ascertain safety significance of any time delay to remove the scaffolding.
- b. On a routine basis the inspectors toured accessible areas of the facility to assess worker adherence to radiation controls and the site security plan, housekeeping or cleanliness, and control of field activities in progress. Worker adherence to radiological controls appeared to be improving from the negative trend identified during the last refueling outage.
- c. Walkdowns of select engineered safety features (ESF) were performed. The ESFs were reviewed for proper valve and electrical alignments. Components were inspected for leakage, lubrication, abnormal corrosion, ventilation and cooling water supply availability. Tagouts and jumper records were reviewed for accuracy where appropriate.

One violation with six additional examples and no deviations were identified.

5. Monthly Maintenance Observation (62703)

Station maintenance activities affecting the safety-related and important to safety systems and components listed below were observed or reviewed to ascertain that they were conducted in accordance with approved procedures, regulatory guides and industry codes or standards, and did not conflict with Technical Specifications.

The following maintenance activities were observed and reviewed:

Unit 1

WR L12125 Perform LaSalle Electrical Procedure (LEP)-EQ-146 Motor Operated Valve Inspection, Refurbishment and Votes Test on 1E12-F026B

WR L92610 1A Diesel Generator Fuel Filter Restriction Alarm Circuitry Modification 1-1-89-030

WR L13047 Repair of the Feedwater Regulating Valve

Unit 2

WR L16201 Reactor Core Isolation Cooling (RCIC) Valve 2E51-F086 Breaker Tripped Due to Thermal Overload While Cycling

Significant observations included:

- a. On June 15, 1992, the RCIC vacuum breaker exhaust line primary containment isolation valve 2E51-F086 tripped on thermal overloads while being cycled. The licensee could not positively determine the cause. The thermal overloads were replaced and the current trace, motor meggering, motor winding resistance, motor current data, and bus voltage data showed the valve operating normally. In addition, to a possible thermal overload problem, the licensee believed a possible cause may have been increased friction from the lubrication on the valve stem drying out. The frequency of lubricating the valve stem was increased in the surveillance schedule. The technical staff also instituted an evaluation for other motor operated valves (MOV) of a similar design to see if they exhibited any problems when cycled after periods of inactivity. As an approved lubricant was not immediately available, a work request was written to perform lubrication of the valve stem at the earliest opportunity. This occurred on July 14, 1992; however, during post-maintenance testing following lubrication, the valve again tripped on thermal overloads. Review of further licensee troubleshooting and corrective actions for this problem is considered an open item (50-374/92013-05(DRP)).
- b. On June 25, 1992, the inspectors reviewed disabled and bypassed control room annunciators on Unit 1 to ascertain general equipment condition. (A similar evaluation was performed on Unit 2 and documented in a previous inspection report). There were 14 orange dots and 6 blue dots placed on annunciator windows at the time of the inspection. A blue dot signified that the bulb was removed and an orange dot indicated a temporary system change that removed one or all of the alarm inputs. An excessive number of plant temporary system changes (not limited to the control room) including some to compensate for design deficiencies was addressed in a previous inspection report and licensee corrective actions are being tracked through open item (50-373/92008-04(DRP)). Those dots due to failed equipment were reasonable as to corrective

action timeliness as many required a refueling outage for repair. Most of the dots placed on annunciator windows were associated with non-safety related equipment.

No violations or deviations were identified.

6. Monthly Surveillance Observation (61726)

Surveillance testing required by Technical Specifications, the Safety Analysis Report, maintenance activities or modification activities were observed and/or reviewed. Areas of consideration while performing observations were procedure adherence, calibration of test equipment, identification of test deficiencies, and personnel qualification. Areas of consideration while reviewing surveillance records were completeness, proper authorization and review signatures, test results properly dispositioned, and independent verification documented. The following activities were observed or reviewed:

Unit 1

LaSalle Electrical Surveillance (LES)-GM-103 Clean and Inspect 1A Diesel Generator Output Breaker

LES-EQ-102 Verification of Standby Gas Treatment System Meter Current and Name Plate Data (WR L12289)

LaSalle Operating Surveillance (LOS)-DG-M2 1A Diesel Generator Operability Test

LOS-SC-M1 Standby Liquid Control System Pump Operability and Explosive Valve Continuity Check

Unit 2

LaSalle Instrument Surveillance (LIS)-RI-401 Steam Line High Flow Reactor Core Isolation Cooling (RCIC) Isolational Functional Test

LIS-RI-402 RCIC Turbine Exhaust Diaphragm High Pressure Isolation Functional Test

LOS-RI-Q3 RCIC System Pump Operability and Valve Inservice Test in Conditions 1, 2, and 3

No violations or deviations were identified.

7. Safety Assessment and Quality Verification (40500)

- a. The inspectors through review of documents and personnel interviews evaluated the significance of the engineering backlog. These items included, but were not limited to, Action Item Requests (AIRs), Engineering Work Requests (EWRs), temporary system changes, procedure changes, and system modifications which

appeared to remain steady in number for the past four years. In general, individual work activities were completed in a timely manner. The licensee's staff did not express concerns that workloads were too heavy or that adequate time was not allotted for each project. The licensee generally had reasonable explanations for work that was not completed in a timely manner, although the inspectors were concerned with regard to two older engineering items which are discussed below.

- (1) AIR 37345589368RIS1, dated August 1989, requested staff engineers to evaluate the applicability of General Electric Service Information Letter (SIL) 368, "Gate Valve Lockup," Revision 1, dated August 14, 1989, to LaSalle Station. At the time of the inspection, the licensee had not evaluated the SIL. The safety significance of the SIL was high because it identified several mechanisms of gate valve lockup, which may render some safety related valves inoperable, and recommended that certain actions be taken to correct the design deficiencies. According to the SIL, up to 18 safety related valves on each unit may be subject to either thermal binding or pressure locking or both. This issue will be reviewed during a future inspection. At the end of the inspection, the licensee indicated the subject of the SIL may have been addressed through a different activity.

- (2) Plant modification MOI-I-83-136, "Provide Essential Service System (ESS) Power Supply to all Reactor Building Interlocking Doors," dated 1983, was not implemented due to higher priority items. During a loss of off-site power event, the external reactor building interlock doors loose control circuit power and open freely without any interlocking control. However, the interior reactor building interlock doors, which were powered from a safety-related power supply, continuously sense that the exterior doors are open, even when they are not, preventing the interior door from opening through normal means. An interior door could be opened if the breaker supplying power to the control circuitry was opened. Some of the breakers were located in the reactor building which could inhibit accessibility. The inspectors were concerned that during an event, that included losing non-safety related power supplies, personnel might not be able to access the reactor building to operate equipment or to exit the reactor building for personal safety in a timely manner. Numerous emergency operating procedures required actions to be accomplished in the reactor building. Compensatory actions specified in reactor building door airlock undervoltage annunciator procedures were insufficient to address a loss of offsite power event. This is an open item (50-373/92013-06(DRP)) pending establishment of appropriate guidance.

- b. Inspection report 50-373/92008(DRP); 50-374/92008(DRP) noted the distinction between deviation reports (DVRs) and informal reports (IRs) was unclear resulting in untimely followup of a single rod scram event. Informal reports had reduced documentation, review, approval, and timeliness requirements. As a result of this concern, the inspectors performed an expanded review of this area.

The DVRs were quickly classified, with licensee event reports and special NRC reports being identified and submitted in a timely fashion. The inspectors regarded IRs as an excellent concept, catching lesser items that the licensee would not normally address as a DVR. However, if an IR was not closed within the first 34 days, its chances of being closed in a timely fashion decreased dramatically. Items requiring more investigation into why they occurred were not of a high enough priority to ensure timely completion, but were too high a significance level to permit immediate closure.

IRs, by design, were to be simple to complete in an expeditious manner, such that formal timeliness requirements should not have been imperative. In addition, due to their supposed low safety significance, the main intent was for the IR to serve as a tracking mechanism to identify recurrent items warranting more attention. However, the lack of distinctive categorization guidance allowed some more significant events (such as the single rod scram and a reactor water level perturbation) be categorized as IRs which would be better served as DVRs.

In addition, there was no tracking mechanism for IR action items to ensure proper closeout verification. This was of concern for the more significant IRs that could be reasonably classified as DVRs. The significance of this weakness was reduced, however, as initiation of immediate corrective actions was not contingent on the completion of the IR.

- c. The inspectors noted inadvertent tripping of the fuel pool cooling pumps. The pumps tripped on low suction pressure following water being drained from the system on the receipt of a skimmer surge tank high water level alarm. The Onsite Nuclear Safety Group provided a comprehensive review and suggested extensive corrective actions which supplemented the actions determined by plant management.
- d. Numerous examples of failures to adhere to fire protection implementation procedures delineated in paragraphs 2, 4.a.(2), and 4.a.(3) represented a general failure of plant workers to place adequate emphasis on fire protection program implementation.

No violations or deviations were identified.

8. Report Review (90713)

During the inspection, the inspector reviewed selected 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.

9. 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. Open items disclosed during the inspection are discussed in Paragraphs 5.a. and 7.a.

10. 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 Paragraphs 4.a(1), 4.a(4), and 4.a(5).

11. 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 July 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.