UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 106 TO FACILITY OPERATING LICENSE NO. NPF-11 AND

AMENDMENT NO. 92 TO FACILITY OPERATING LICENSE NO. NPF-18

COMMONWEALTH EDISON COMPANY

LASALLE COUNTY STATION, UNITS 1 AND 2

DOCKET NOS. 50-373 AND 50-374

1.0 INTRODUCTION

By letter dated April 11, 1995, Commonwealth Edison Company (ComEd, the licensee) requested to amend Facility Operating License No. NPF-11 and NPF-18 for LaSalle County Station, Units 1 and 2. The proposed amendments would add Operating License Conditions 2.C.(35) and 2.C.(19) for Units 1 and 2, respectively. The license conditions provide a limited extension of specified surveillance test intervals in order to accommodate a change to the schedule for the LaSalle, Unit 1 seventh refueling outage. The affected surveillance intervals were identified in the licensee's April 11, 1995, application.

2.0 BACKGROUND

The original scheduled shutdown for the seventh refueling outage of LaSalle, Unit 1 (L1R07) was September 30, 1995. The licensee has revised the outage schedule based upon various factors including the fuel performance and resource availability. The revised L1R07 is scheduled to begin on January 27, 1996, with an approximate duration of 2 months.

LaSalle Technical Specification 4.0.2 provides for up to 25 percent extensions of technical specification defined surveillance intervals. LaSalle Technical Specification Table 1.1 defines the refueling or 18-month surveillance frequency as 550 days. The maximum allowed interval, including the 25 percent extension, of the 18-month surveillances is therefore 687.5 days.

Based upon the scheduled refueling outage and the maximum allowable surveillance intervals, the licensee has identified some surveillance requirements which would be required to be performed prior to the outage or during the outage at possibly inopportune times. The licensee has requested license conditions be added for LaSalle, Units 1 and 2, to allow an extension of specified surveillance intervals. The maximum extension for the surveillance requirements would be until April 5, 1996, which corresponds to a maximum interval of 25.1 months for a scheduled 18-month surveillance.

Generic Letter 91-04, "Changes in Technical Specification Surveillance Intervals to Accommodate a 24-Month Fuel Cycle," was issued to address

licensees wishing to extend surveillance requirements as a result of longer operating cycles. In the generic letter, the staff stated:

> The NRC staff has reviewed a number of requests to extend 18-month surveillances to the end of a fuel cycle and a few requests for changes in surveillance intervals to accommodate a 24-month fuel cycle. The staff has found that the effect on safety is small because safety systems use redundant electrical and mechanical components and because licensees perform other surveillances during plant operation that confirm that these systems and components can perform their safety functions. Nevertheless, licensees should evaluate the effect on safety of an increase in 18-month surveillance intervals to accommodate a 24-month fuel cycle. This evaluation should confirm that historical plant maintenance and surveillance data support this conclusion.

Since issuance of the generic letter, the staff has issued several license amendments to accommodate 24-month fuel cycles and numerous other amendments involving one-time extensions to support specific plant refueling outage schedule changes.

3.0 EVALUATION

The licensee's April 11, 1995, letter identified specific surveillance and calibration requirements affected by the revised schedule for the seventh refueling outage for LaSalle, Unit 1. The licensee has proposed to add a license condition to the licenses for Unit 1 and Unit 2 (related to common equipment) that would extend the specific surveillance and calibration required deadline to April 5, 1996. Each of the identified extensions are addressed below. The due dates are based on the normal 18-month surveillance interval while the critical dates include the allowable 25 percent extension.

1. Channel Calibration of Isolation Actuation Instrumentation, Secondary Containment Unit 1 Radiation Monitors:

   A. Unit 1 Reactor Building Vent Exhaust Plenum Radiation Monitor Calibration surveillance test is due September 26, 1995, and critical February 10, 1996. This surveillance is required to be performed by Technical Specification Surveillance Requirement (SR) 4.3.2.1, Table 4.3.2.1-1.

   B. Unit 1 Reactor Building Fuel Pool Exhaust Radiation Monitor Calibration surveillance test is due October 2, 1995, and critical February 16, 1996. This surveillance is required to be performed by Technical Specification SR 4.3.2.1, Table 4.3.2.1-1.

   The licensee reviewed calibration records and confirmed that the monitors have not been found to have drifted outside the allowable setpoint values. Confidence in the isolation function related to the

above instrument channels is provided by routine surveillances as well as the performance history confirmed by the licensee. The staff finds that the extension of the calibration requirements beyond the above critical dates, but on or before April 5, 1996, is acceptable.

2. Isolation Actuation Instrumentation, Manual Initiation Logic System Functional Test and Channel Functional Test is due October 23, 1995, and critical March 8, 1996. These surveillances are required by Technical Specification SRs 4.3.2.1 and 4.3.2.2, Items B.1, 2, 3, 4. The licensee reviewed results from previous surveillances and noted that no problems were found with the associated equipment. The licensee performed a review of industry data and found that the type of relay used in these channels, Agastat GPI, has a good performance history. These requirements are related to equipment (switches and relays) for which drift is not a significant concern. In addition to the performance history of these channels, the isolation function is also ensured by the logic which includes redundant, inboard and outboard, isolation valves. The staff finds that the extension of the above functional tests beyond the critical dates, but on or before April 5, 1996, is acceptable.

3. Primary and Secondary Containment Isolation Actuation System Logic System Functional Test for Valve Groups 2 and 4, and Thermal Overload Bypass Channel Functional Test is due September 5, 1995, and critical January 20, 1996. These surveillances are required by Technical Specification SRs 4.3.2.2, 4.6.3.2, 4.6.5.2.b, 4.6.5.3.d.2, and 4.8.3.3.1. These surveillances involve logic system functional tests of switches, relays, and other components from the sensor to the actuating device. These procedures do not test equipment with a tendency to drift over time. The licensee reviewed previous surveillances and identified two relays that were replaced following successful completion of the related surveillance. The licensee's review of industry data for the same type of relay (Agastat GPI) revealed a total of only three failures, representing a low failure rate. Confidence in the isolation, actuation, and bypass functions related to the above surveillances is provided by routine surveillances and operation of related systems, isolation valve redundancy, and the performance histories confirmed by the licensee. The staff finds that the extension of the above functional tests beyond the critical dates, but on or before April 5, 1996, is acceptable.

4. Response Time Test of Isolation Actuation Instrumentation for Valve Group 1, Items A.1.c.2) and A.1.c.3).

   C. Main Steamline High Flow Primary Containment Isolation Response Time Test is due September 13, 1995, and critical January 28, 1996. This surveillance is required by Technical Specification SR 4.3.2.3.

D. Main Steamline Low Pressure Primary Containment Isolation Response Time Test is due September 11, 1995, and critical January 26, 1996. This surveillance is required by Technical Specification SR 4.3.2.3.

The above surveillances involve verification that the main steamline isolation valve (MSIV) logic associated with high flow and low pressure satisfies the response time requirements of the Technical Specification. The response time of the MSIVs is determined in accordance with other surveillance requirements and combined with the above response times to determine the overall MSIV isolation system response time. A licensee review of past surveillances found that the response times measured as part of this surveillance satisfied the acceptance criteria. Considering the historical performance of the above channels response time, the relatively small contribution of the logic channel delays to the total isolation system response time, and the redundancy provided for the above isolation functions, the staff finds that the extension of the above surveillances beyond the critical date, but on or before April 5, 1996, is acceptable.

5. Channel Calibration of Emergency Core Cooling System (ECCS) Actuation Instrumentation, Undervoltage and Degraded Voltage Relays. Safety Related Buses 141Y, 142Y, and 143 Undervoltage Relay Calibrations are due September 4, 1995, and critical January 19, 1996. Also, due to Unit 2 requirements for diesel generator and bus operability, Unit 2 is also affected and requires surveillance interval extension. These electrical protective relays are required to meet the requirements of Technical Specification SR 4.3.3.1 and Table 4.3.3.1-1, Trip Functions D.1 and D.2. The licensee reviewed the performance history for these relays and found that the instruments had not drifted outside of the Technical Specifications allowable values during the existing calibration intervals. Given the historical performance of the electrical protective relays as well as the redundancy provided by the undervoltage and degraded voltage logics, the staff finds that the extension of the above surveillances beyond the critical date, but on or before April 5, 1996, is acceptable.

6. ECCS Actuation System Logic System Functional Tests for High Pressure Core Spray (HPCS), Low Pressure Core Spray (LPCS), and a Low Pressure Coolant Injection (LPCI) Residual Heat Removal (RHR), and Thermal Overload Bypass Channel Functional Tests. HPCS is due September 8, 1995, and critical January 23, 1996, LPCS is due September 21, 1995, and critical February 5, 1996, and Division 1 RHR (logic system functional tests only) is due September 19, 1995, and critical February 3, 1996. These surveillances are required to be performed by Technical Specification SRs 4.3.3.2, 4.8.3.3.1 (not Division 1 RHR), 4.5.1.c.1, and 4.5.2.1. The licensee reviewed the results of previous performances of these surveillances and determined that each was completed

satisfactorily. Many of the actuating devices and instrument channels related to the above functional tests are subject to other routine surveillances which provide additional assurance that the associated functional capabilities are maintained. The staff finds that the extension of the above functional tests beyond the critical dates, but on or before April 5, 1996, is acceptable.

7. Response Time Test of ECCS Actuation Instrumentation for RHR B and C Level 1, Channels B and D, and HPCS Level 2, Channels B and D; Items B.1.a, C.1.a.

   a. Level 1 ECCSs Initiation Sensor, Switch, and Relay Response Time Test is due September 20, 1995, and critical February 4, 1996.

   b. Level 2 HPCS Initiation Sensor, Switch, and Relay Response Time Test is due September 15, 1995, and critical January 30, 1996.

   These surveillances are required by Technical Specification SR 4.3.3.3. The licensee reviewed previous response time tests and determined that no overall response time test, of which the above instrumentation tests are a small contributor, has failed to meet the acceptance criteria. The critical dates for the above surveillances fall after the beginning of the outage. The requested extension allows for the licensee to optimize the scheduling of these surveillances during the outage. The required response times are based upon design-basis accidents during power operation and are less significant during the shutdown conditions associated with outage activities. Given the past performance related to these response time tests, the functional requirements related to these systems during shutdown conditions, and overall redundancy of engineered safety features systems, the staff finds that the extension of the above response time testing beyond the critical dates, but on or before April 5, 1996, is acceptable.

8. Anticipated Transient Without Scram (ATWS) Recirculation Pump Trip Logic System Functional Test is due September 11, 1995, and critical January 26, 1996. This surveillance is required by Technical Specification SR 4.3.4.1.2. These surveillances involve logic system functional tests of switches, relays, and other components from the sensor to the actuating device. These procedures do not test equipment with a tendency to drift over time. The licensee reviewed previous surveillances and determined that the tests demonstrated that the system operated as designed. Other routine surveillances also provide confidence in the ATWS system's functional readiness. The staff finds that the extension of the above logic functional test beyond the critical date, but on or before April 5, 1996, is acceptable.

9. End-of-Cycle Recirculation Pump Trip Logic System Functional Test is due September 11, 1995, and critical January 26, 1996. This surveillance is

required by Technical Specification SR 4.3.4.2.2. These surveillances involve logic system functional tests of switches, relays, and other components from the sensor to the actuating device. These procedures do not test equipment with a tendency to drift over time. The licensee reviewed previous surveillances and determined that, with the exception of one failure, the tests demonstrated that the system operated as designed. Other routine surveillances also provide confidence in the instrumentation system's functional readiness. The staff finds that the extension of the above logic functional test beyond the critical date, but on or before April 5, 1996, is acceptable.

10. Reactor Coolant System Pressure Isolation Valve Leakage Test (High Pressure Water Test) for Unit 1 HPCS Injection Valve E22-F005 and LPCI C Injection Valve E12-F041C. HPCS is due September 12, 1995, and critical January 27, 1996, and 'C' LPCI is due September 13, 1995, and critical January 28, 1996. These surveillances are required by ASME [American Society of Mechanical Engineers], Section XI, to be performed only on a refuel frequency, and by Technical Specification SR 4.4.3.2.2.a on an 18-month frequency. The licensee reviewed previous local leak rate tests performed for these valves and found that the valves had always met the 1 gallon per minute acceptance criteria. Leakage through these valves would be detected during reactor operation. Given the past performance history, alternate leakage detection capabilities, and isolation redundancy, the staff finds that the extension of the above leakage tests beyond the critical dates, but on or before April 5, 1996, is acceptable.

11. Main Steamlines leakage through the Isolation Valves for Lines A, C, and D. Main Steam Isolation Valve Local Leak Rate Tests are due September 8, 1995, and critical January 23, 1996. These surveillances are required by 10 CFR Part 50, Appendix J, to be performed on at least a 24-month frequency and every 18 months by Technical Specification SR 4.6.3.6.a. The licensee has stated that the Appendix J 24-month requirement will be satisfied. The licensee has reviewed the testing history for the MSIV's and states that the performance of the valves has been good and that the leakage limits have not been exceeded. Based on this performance history as well as the redundancy in the MSIV isolation design, the staff finds that the extension of the above tests beyond the critical dates, but within the frequency required by Appendix J, is acceptable.

12. Fire Rated Seals, Sealed Penetration Inspection (Electrical Bus Duct). Interior and Exterior Bus Duct Fire Seal Inspections are due September 9, 1995, and critical January 24, 1996. These inspections are required by Technical Specification SR 4.7.6.1.c, which states that 10 percent of each fire seal type be inspected every 18 months. The licensee reviewed all inspections performed since 1985 and reported that no failures of these fire seals have occurred. Based on the continued

confidence in the functional capability of these fire seals for the interim period, the staff finds that the extension of the above surveillances beyond the critical dates, but on or before April 5, 1996, is acceptable.

13. Mechanical Snubber Functional Testing is due September 17, 1995, and critical February 1, 1996. This surveillance consists of a 10 percent sampling of safety-related snubbers as required by Technical Specification SR 4.7.9.e. The licensee has reviewed previous surveillances and states that the proposed extension is unlikely to result in snubber failures. The several failures that were discovered in previous surveillances are not directly related to degradation as a result of aging. Based on the general confidence in snubber functional capability and the conservatisms inherent in the plant design, the staff finds that the extension of the surveillance beyond the critical date, but on or before April 5, 1996, is acceptable.

14. Emergency Diesel Generator (EDG) Maintenance Inspections. Division 1 is due October 5, 1995, and critical February 19, 1996; Division 2 is due September 5, 1995, and critical January 20, 1996; and Division 3 is due September 4, 1995, and critical January 19, 1996. Also, due to Unit 2 requirements for diesel generator operability, Unit 2 is also affected and requires surveillance interval extension related to Divisions 1 and 2. These surveillances are currently required to be performed per Technical Specification SRs 4.8.1.1.2.d.1 and 4.8.1.2 on an 18-month frequency. These surveillances consist of the regularly scheduled preventative maintenance on the EDGs as recommended by the manufacturer. The licensee has stated that the maintenance and inspection requirements, as determined by the EMD Diesel Generator Owner's Group, are met if the critical date for this surveillance is extended. In addition to the inspection conducted in accordance with this SR, the reliability of the EDGs is confirmed by other routine surveillances and programs. Based on the proposed interval remaining within the range recommended by the owner's group and the verifications of EDG operability provided by other surveillances and programs, the staff finds that the extension of the inspections beyond the critical dates, but on or before April 5, 1996, is acceptable.

15. Trip and Trip Bypass Tests for Diesel Generators 0, 1A, and 1B and Division 3 Trip Test with Diesel Generator 1B Operating in a Test Mode. Diesel generator 0 is due October 10, 1995, and critical February 24, 1996; diesel generator 1A is due September 27, 1995, and critical February 11, 1996; and diesel generator 1B is due September 17, 1995, and critical February 1, 1996. Also, due to Unit 2 requirements for diesel generator operability, Unit 2 is also affected and requires surveillance interval extension related to diesel generators 0 and 1A. These surveillances are required by Technical Specifications 4.8.1.1.2.d.7, 4.8.1.1.2.d.13, and 4.8.1.2, and 4.8.1.1.2.d.11.b. The

licensee performed a review of previous surveillances and reported no failures have occurred during the performance of these surveillances. These functional tests of the EDG trip logic are generally related to equipment (switches and relays) which have not shown a significant tendency to drift. The staff finds that the extension of the above functional tests beyond the critical dates, but on or before April 5, 1996, is acceptable.

16. Division 2 Battery Charger Test is due September 23, 1995, and critical February 7, 1996. Also, due to Unit 2 Technical Specification 3/4.8.2.3, D.C. Distribution - Operating, Limiting Condition for Operation, Unit 2 is also affected and requires surveillance interval extension related to Division 2. The Division 1 Battery Charger Test is due September 29, 1995, and critical February 13, 1996. These surveillances are required every 18 months by Technical Specification SRs 4.8.2.3.2.c.4 and 4.8.2.4.2. The licensee reviewed the previous surveillances and reported that the tests were completed satisfactorily. Additional routine surveillances as well as continuous indications and alarms also ensure the continued functional capability of the battery chargers. The staff finds that the extension of the surveillances beyond the critical dates, but on or before April 5, 1996, is acceptable.

17. Division 1 Battery Service Test is due October 1, 1995, and critical February 15, 1996. This surveillance is required by Technical Specifications 4.8.2.3.2.d. and 4.8.2.4.2. The licensee reviewed the performance history for the batteries at LaSalle as well as industry performance data and reported that no failures were identified. Based on the performance history of the service tests combined with the routine surveillances related to ensuring battery operability, the staff finds that the extension of the test beyond the critical date, but on or before April 5, 1996, is acceptable.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Illinois State official was notified of the proposed issuance of the amendments. The State official had no comments.

5.0 ENVIRONMENTAL CONSIDERATION

The amendments change surveillance requirements. The NRC staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration, and there has been no public comment on such finding

(60 FR 35066). Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

5.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

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