



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555
February 11, 1987

Docket No. 50-373

Mr. Dennis L. Farrar
Director of Licensing
Commonwealth Edison Company
P.O. Box 767
Chicago, Illinois 60690

Dear Mr. Farrar:

Subject: Issuance of Amendment No. 49 to Facility Operating License
No. NPF-11 - La Salle County Station, Unit 1

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 49 to Facility Operating License No. NPF-11 for the La Salle County Station, Unit 1. This amendment is in response to your letter dated October 14, 1986, and as supplemented by letter dated January 13, 1987.

The amendment provides a one-time change to the Unit 1 Technical Specifications, during the first refueling outage for La Salle Unit 2, by extending the present ten-day period to thirty days during which only three diesel generators would be required to satisfy the standby AC on-site power requirements for Unit 1. This request was made so that you could perform the modification required by Unit 2 License Condition 2.C.(12)(b) on the shared diesel generator without having to shut down both Units.

A copy of the related safety evaluation supporting Amendment No. 49 to Facility Operating License No. NPF-11 is enclosed.

Sincerely,

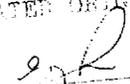
A handwritten signature in cursive script that reads "Elinor G. Adensam".

Elinor G. Adensam, Director
BWR Project Directorate No. 3
Division of BWR Licensing

Enclosures:

1. Amendment No. 49 to NPF-11
2. Safety Evaluation

cc w/enclosure:
See next page

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Certified By 

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Mr. Dennis L. Farrar
Commonwealth Edison Company

La Salle County Nuclear Power Station
Units 1 & 2

cc:

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

COMMONWEALTH EDISON COMPANY

DOCKET NO. 50-373

LA SALLE COUNTY STATION, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 49
License No. NPF-11

1. The Nuclear Regulatory Commission (the Commission or the NRC) has found that:
 - A. The application for amendment filed by the Commonwealth Edison Company (the licensee), dated October 14, 1986, as supplemented by letter dated January 13, 1987, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the regulations of the Commission;
 - C. There is reasonable assurance: (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations set forth in 10 CFR Chapter I;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the enclosure to this license amendment; and paragraph 2.C.(2) of the Facility Operating License No. NPF-11 is hereby amended to read as follows:

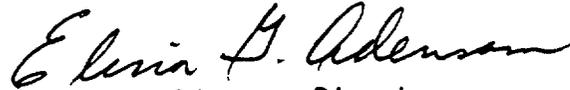
(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 49, and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

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3. This amendment is effective as of date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Elinor G. Adensam, Director
BWR Project Directorate No. 3
Division of BWR Licensing

Enclosure:
Changes to the Technical
Specifications

Date of Issuance: February 11, 1987

ENCLOSURE TO LICENSE AMENDMENT NO. 49

FACILITY OPERATING LICENSE NO. NPF-11

DOCKET NO. 50-373

Replace the following pages of the Appendix "A" Technical Specifications with the enclosed pages. The revised pages are identified by Amendment number and contain a vertical line indicating the area of change.

REMOVE

3/4 8-1

INSERT

3/4 8-1
3/4 8-1a

3/4.8 ELECTRICAL POWER SYSTEMS

3/4.8.1 A.C. SOURCES

A.C. SOURCES - OPERATING

LIMITING CONDITION FOR OPERATION

3.8.1.1 As a minimum, the following A.C. electrical power sources shall be OPERABLE:

- a. Two physically independent circuits between the offsite transmission network and the onsite Class 1E distribution system, and
- b. Separate and independent diesel generators* 0, 1A, 2A and 1B with:
 1. For diesel generator 0, 1A and 2A:
 - a) A separate day fuel tank containing a minimum of 250 gallons of fuel.
 - b) A separate fuel storage system containing a minimum of 31,000 gallons of fuel.
 2. For diesel generator 1B, a separate fuel storage tank/day tank containing a minimum of 29,750 gallons of fuel.
 3. A separate fuel transfer pump.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, and 3.

ACTION:

- a. With either one offsite circuit or diesel generator 0 or 1A of the above required A.C. electrical power sources inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirements 4.8.1.1.1a within 1 hour, and 4.8.1.1.2a.4, for one diesel generator at a time, within eight hours, and at least once per 8 hours thereafter; restore at least two offsite circuits and diesel generators 0 and 1A to OPERABLE status within 72 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- b. With one offsite circuit and diesel generator 0 or 1A of the above required A.C. electrical power sources inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirements 4.8.1.1.1a within 1 hour, and 4.8.1.1.2a.4, for one diesel generator at a time, within six hours, and at least once per 8 hours thereafter; restore at least one of the inoperable A.C. sources to OPERABLE status within 12 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours. Restore at least two offsite circuits and diesel generators 0 and 1A to OPERABLE status within 72 hours from the time of initial loss or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

*See page 3/4 8-1(a)

ELECTRICAL POWER SYSTEMS

LIMITING CONDITION FOR OPERATION (Continued)

*For a 30 day period for diesel generator 2A during the Unit 2 first refueling outage, with Unit 2 in operational condition 4 or 5 or defueled, only 3 diesel generators, 1B and 1A, and 0 are required to satisfy the standby AC onsite power requirements for Unit 1. Surveillance requirements, 4.8.1.1.1a and 4.8.1.1.2a.4 shall be performed within 48 hours prior to removal of the 2A diesel generator from service. During the 30 day period, the remaining 3 diesel generators will be verified¹ operable at least once per day (in addition to any testing required by Table 4.8.1.1.2-1). The control circuit for the unit cross-tie circuit breakers between buses 142Y and 242Y shall be temporarily modified to allow the breakers to be closed with the diesel generator feeding the bus. In the event these conditions are not met, Unit 1 will be brought to HOT SHUTDOWN within 12 hours and COLD SHUTDOWN within the following 24 hours. The provisions of Technical Specification 3.0.4 do not apply.

¹The term verify as used in this context means to administratively check by examining logs or other information to determine if certain components are out-of-service for maintenance or other reasons. It does not mean to perform the surveillance requirements needed to demonstrate the OPERABILITY of the components.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. TO FACILITY OPERATING LICENSE NO. NPF-11

COMMONWEALTH EDISON COMPANY

LA SALLE COUNTY STATION, UNIT 1

DOCKET NO. 50-373

1.0 INTRODUCTION

By letter dated October 14, 1986, Commonwealth Edison Company (the licensee) requested a one-time change to La Salle County Station Unit 1 Technical Specifications so that lube oil modification (required by license condition) can be implemented on Unit 2 diesel generator 2A without the need for shutting down Unit 1. Because diesel generator 2A is shared by both units and designed to supply Unit 1 safety related equipment, the Technical Specifications require (for diesel generator 2A inoperability) shutdown of Unit 1 after 10 days and testing of other diesel generators every 8 hours. The licensee has requested that the required shutdown after 10 days be changed to shutdown after 30 days and that testing of other diesel generators every 8 hours be changed to administratively checking their operability once per 24 hours. In addition, the licensee has committed to:

1. Demonstrate the operability of diesel generators 0, 1A, and 1B in accordance with Technical Specification requirements 4.8.1.1.1a and 4.8.1.1.2.a.4 prior to taking diesel generator 2A out of service for modifications.
2. No maintenance is to be performed on diesel generators 0, 1A, and 1B during inoperability of diesel generator 2A.
3. Unit 2 will be in cold shutdown, refuel mode or defueled before diesel generator 2A is declared inoperable.
4. Both system auxiliary transformers are to be operable. For inoperability of any one transformer, the licensee indicated by November 17, 1986 telecon and confirmed by letter dated January 13, 1987, that Unit 1 shutdown will commence immediately such that the reactor will be in at least Hot Shutdown within 12 hours and in Cold Shutdown within the following 24 hours.
5. Interlocks for the unit cross-tie circuit breakers between buses 142y and 242y will be removed during inoperability of diesel generator 2A to allow the tie breaker to be manually closed from the control room when offsite preferred power main feed or diesel generator supply breakers are closed. In addition, the licensee indicated by January 13, 1987, letter that loading on bus 242y would be restricted during the modification such that overloading of the diesel generator 1A will not occur when buses 142y and 242y are connected together.

6. For any inoperability of diesel generators 0 or 1A the licensee indicated by telecon on November 17, 1986, and confirmed in a subsequent letter dated January 13, 1987, that Unit 1 shutdown will commence immediately such that the reactor will be in at least Hot Shutdown within 12 hours and in Cold Shutdown within the following 24 hours.
7. For inoperability of diesel generator 1B the licensee indicated by telecon on November 17, 1986, and confirmed in a subsequent letter dated January 13, 1987, that the requirements of action e of Technical Specification 3.8.1.1 would be followed for shutdown.
8. The licensee indicated by telecon on December 3, 1986, and confirmed in a subsequent letter dated January 13, 1987, that the unit auxiliary transformer for LaSalle Unit 2 will be operable such that it can, if required, provide a third means of supplying offsite power to bus 242y during modification of diesel generator 2A.

As noted above, the January 13, 1987, letter provided supplemental information which clarified the licensee's original request and did not affect the accuracy of the Federal Register notice concerning the amendment; thus, the staff did not renotice this action.

2.0 EVALUATION

The licensee is proposing to take diesel generator 2A out of service for modification for a period of up to 30 days. During this period a design basis event (loss of offsite power with simultaneous single failure of diesel generator 1A) will cause the unavailability of the following redundant safety systems:

1. Standby gas treatment system,
2. Drywell and suppression chamber hydrogen recombiner system, and
3. Control room and auxiliary electric equipment room emergency filtration system.

The capability for shutting down Unit 1, given this design basis event with the inoperability of diesel generator 2A for 30 days, has not been analysed in the Final Safety Analysis Report.

The licensee, in justifying the proposed amendment, provided the following results of analyses to demonstrate that the the health and safety of the public will not be endangered.

1. The probability of the design basis event (loss of offsite power and single failure of diesel generator 1A) during the 30 day inoperability for diesel generator 2A is sufficiently small to reasonably assure the health and safety of the public; and
2. If a loss of offsite power event were to occur during the 30 day inoperability period for diesel generator 2A, sufficient onsite power will still be available, with a single active failure, to safely shut-down Unit 1.

In addition, the licensee, to compensate for the inoperability of diesel generator 2A, will temporarily modify the electrical distribution system such that: (1) the unit auxiliary transformer associated with Unit 2 will be energized, (2) the interlocks for the unit cross-tie circuit breakers between buses 142y and 242y will be removed, and (3) loading on bus 242y will be reduced. These modifications provide a third offsite power circuit from the La Salle County Station switchyard to safety loads and provide a means of using diesel generator 1A to supply onsite electrical power to bus 242y if required during a loss of offsite power event.

Based on the licensee's October 14, 1986, letter and related discussions with the licensee, the staff has concluded that the proposed one-time Technical Specification change is justified. Our reasoning is as follows:

1. With respect to the reliability of the offsite power sources at La Salle, we reviewed the data base for loss of offsite power (LOOP) events compiled in NUREG/CR-3992, "Loss of Offsite Power at U.S. Nuclear Plants," and the LOOP data subsequent to the publication of NUREG/CR-3992. In this regard, we note that La Salle has not experienced a LOOP event since its initial criticality. In addition, we note that the La Salle switchyard is arranged in a ring-bus configuration such that any single failure would only affect one offsite power source. Furthermore, we note that removable links in the main generator leads can be removed to provide a third offsite power source for each unit by energizing and backfeeding the unit auxiliary transformers (UAT) through the main transformers. The licensee's analysis indicates that if the UAT on the shutdown unit is not energized, the probability of a LOOP event during a 30 day period is estimated to be about 9.5×10^{-4} ; however, if the UAT on the shutdown unit is energized, the probability of a LOOP event during a 30 day period is estimated to be about 1.5×10^{-4} . Based on the licensee's evaluation, we agree that the likelihood of a LOOP event at La Salle appears to be low.
2. With respect to the reliability of the onsite emergency AC power sources at La Salle, we note that the diesel generators at La Salle have started over 450 times with only three failures since 1984. The reliability of the diesel generators at La Salle appears to exceed 0.99, whereas the reliability of a diesel generator on the average is 0.98 (Reference 1).
3. With respect to an event in which the failure of three offsite power sources occurs concurrent with a failure of one onsite system diesel generator (plant configuration during modification of diesel generator 2A), the licensee's analysis estimates that the probability of such an event is 4×10^{-6} during a 30 day period.
4. With respect to an event in which the failure of two offsite power sources occurs concurrent with a failure of two onsite system diesel generators (normal plant configuration), the licensee's analysis estimates that the probability of such an event is 2.0×10^{-6} during a 30 day period.

5. The proposed one-time Technical Specification change is justified because the loss of AC power probabilities of 4×10^{-6} and 2×10^{-6} during a 30 day period are similar for normal plant configuration and plant configuration during modification of diesel generator 2A.

Based on the reasoning given above and commitments outlined in section 1.0 of this report, the staff concludes that the proposed one time amendment to the inoperability limit of diesel generator 2A for up to 30 days meets the requirements of section 4.11 of IEEE Standard 279-1971, and is, therefore, acceptable.

3.0 ENVIRONMENTAL CONSIDERATION

This amendment involves a change in the installation and use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes in surveillance requirements. The staff has determined that this amendment involves 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 this amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, this amendment meets 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 this amendment.

4.0 CONCLUSION

The Commission made a proposed determination that the amendment involves no significant hazards consideration which was published in the Federal Register (51 FR 40276) on November 5, 1986, and consulted with the state of Illinois. No public comments were received, and the state of Illinois did not have any comments.

The staff 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, and (2) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

5.0 REFERENCE

1. Draft NUREG, "Evaluation of Station Blackout Accident at Nuclear Power Plants" May 1985.

Principal Contributor: John Knox, NRR

Dated: February 11, 1987

AMENDMENT NO. 49 TO FACILITY OPERATING LICENSE NO. NPF-11 - LA SALLE, UNIT 1

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