

July 26, 1994

Docket Nos. 50-373  
and 50-374

Mr. D. L. Farrar, Manager  
Nuclear Regulatory Services  
Commonwealth Edison Company  
Executive Towers West III, Suite 500  
1400 OPUS Place  
Downers Grove, Illinois 60515

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Dear Mr. Farrar:

SUBJECT: ISSUANCE OF AMENDMENTS FOR LASALLE COUNTY STATION, UNITS 1 AND 2  
(TAC NOS. M87720 AND M87721)

The Commission has issued the enclosed Amendment No. 101 to Facility Operating License No. NPF-11 and Amendment No. 85 to Facility Operating License No. NPF-18 for the LaSalle County Station, Units 1 and 2, respectively.

Your application for license amendment dated September 10 and November 17, 1993, seeking to revise your Updated Final Safety Analysis Report (UFSAR), presented an unreviewed safety question concerning the operation of the main condenser mechanical vacuum pump upon receipt of a main steam line high radiation alarm. The staff has completed its review and has found your proposal acceptable.

These amendments were necessitated by the requirements of 10 CFR 50.59(c) because the review by Commonwealth Edison Company identified the changes as an unreviewed safety question. No changes to the Technical Specifications are required by these amendments.

A copy of the Safety Evaluation is also enclosed. The Notice of Issuance will be included in the Commission's biweekly Federal Register notice.

Sincerely,

Original signed by Brian Thomas for:  
Anthony T. Gody, Jr., Project Manager  
Project Directorate III-2  
Division of Reactor Projects - III/IV  
Office of Nuclear Reactor Regulation

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PDR ADOCK 05000373  
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Enclosures:

1. Amendment No. 101 to NPF-11
2. Amendment No. 85 to NPF-18
3. Safety Evaluation

cc w/enclosures:  
See next page

OFC	LA: PDIII-2	PM: PDIII-2	D: PDIII-2	OGC*	BC: PDR	BC: HHFB*
NAME	CMOORE	AGODY for	RCAPRA r/c	SHOM	JCUNNINGHAM	GMARCUS
DATE	7/13/94	7/13/94	7/21/94	06/23/94	7/29/94	11/23/93
COPY	YES/NO	(YES)/NO	(YES)/NO	YES/NO	YES/NO	YES/NO

\*See previous concurrence

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Mr. D. L. Farrar  
Commonwealth Edison Company

LaSalle County Station  
Unit Nos. 1 and 2

cc:

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Chief, Public Utilities Division  
Illinois Attorney General's Office  
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Chicago, Illinois 60601

Assistant Attorney General  
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Chairman  
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LaSalle County Station  
Rural Route 1  
P.O. Box 220  
Marseilles, Illinois 61341



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

COMMONWEALTH EDISON COMPANY

DOCKET NO. 50-373

LASALLE COUNTY STATION, UNIT 1

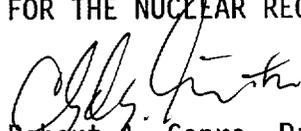
AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 101  
License No. NPF-11

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The applications for amendment filed by the Commonwealth Edison Company (the licensee), dated September 10, 1993, as supplemented November 17, 1993, 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, by Amendment No.101, the license is amended to authorize revision of the Updated Final Safety Analysis Report (UFSAR) as set forth in the application for amendment by Commonwealth Edison Company dated September 10, 1993 as supplemented November 17, 1993. Commonwealth Edison Company shall update the UFSAR to reflect the revised description authorized by this amendment in accordance with 10 CFR 50.71(e).

3. This amendment is effective upon date of issuance, to be implemented during the next scheduled Final Safety Analysis Report update.

FOR THE NUCLEAR REGULATORY COMMISSION



Robert A. Capra, Director  
Project Directorate III-2  
Division of Reactor Projects - III/IV  
Office of Nuclear Reactor Regulation

Date of Issuance: July 26, 1994



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

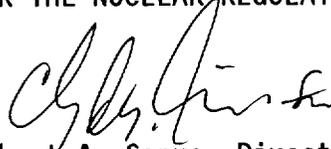
COMMONWEALTH EDISON COMPANY  
DOCKET NO. 50-374  
LASALLE COUNTY STATION, UNIT 2  
AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 85  
License No. NPF-18

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment filed by the Commonwealth Edison Company (the licensee), dated September 10, 1993, as supplemented November 17, 1993, 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, by Amendment No. 85, the license is amended to authorize revision of the Updated Final Safety Analysis Report (UFSAR) as set forth in the application for amendment by Commonwealth Edison Company dated September 10, 1993 as supplemented November 17, 1993. Commonwealth Edison Company shall update the UFSAR to reflect the revised description authorized by this amendment in accordance with 10 CFR 50.71(e).

3. This amendment is effective upon date of issuance, to be implemented during the next scheduled Final Safety Analysis Report update.

FOR THE NUCLEAR REGULATORY COMMISSION



Robert A. Capra, Director  
Project Directorate III-2  
Division of Reactor Projects - III/IV  
Office of Nuclear Reactor Regulation

Date of Issuance: July 26, 1994



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 101 TO FACILITY OPERATING LICENSE NO. NPF-11 AND  
AMENDMENT NO. 85 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 September 10, 1993, as supplemented November 17, 1993, Commonwealth Edison Company (CECo), the licensee, submitted a request for license amendment in accordance with 10 CFR 50.90. A license amendment request was necessary because the licensee discovered an existing condition contrary to the design basis which involved an unreviewed safety question as defined in 10 CFR 50.59(a)(2). The unreviewed safety question applies to the LaSalle County Station, Units 1 and 2 Main Condenser Vacuum Pump (MCVP) isolation scheme and was first reported to the NRC in a letter dated September 10, 1993. 10 CFR 50.59(a)(2) states that a proposed change, test, or experiment shall be deemed to involve an unreviewed safety question (i) if the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the safety analysis report may be increased, (ii) if a possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report may be created; or (iii) if the margin of safety as defined in the basis for any technical specification is reduced.

Specifically, the unreviewed safety question involves the automatic shutdown of the MCVP and closure of the isolation valve downstream of the pump on a main steam line high radiation signal. Contrary to wording in the LaSalle County Station Updated Final Safety Analysis Report (UFSAR) and the NRC's Safety Evaluation Report (SER) related to the operation of LaSalle County Station (NUREG-0519), issued in March 1981, detection of a high radiation signal in the main steam lines does not automatically shut down the MCVP or close the isolation valve downstream of the pump. During plant construction, CECo chose not to install devices that would automatically trip the MCVP and close the isolation valve and documented that decision in Final Safety Analysis Report (FSAR) Amendment No. 57 issued in July 1981. However, UFSAR Section 11.5.2.1.4 and NUREG-0519 Section 15.3.4 still state that the installation of the automatic trip and isolation devices occurred. As a result, the licensing basis for LaSalle County Station as defined in the UFSAR and the NRC's SER is incorrect.

## 2.0 EVALUATION

In its letters dated September 10, 1993, and November 17, 1993, the licensee discussed the implementation of procedures to trip and isolate the MCVP in the event a main steam line high radiation alarm is received. The bases for the main steam line high radiation MCVP trip and isolation are to limit the release of fission products from the main condenser following a postulated design basis control rod drop accident during which some fuel element failure is postulated. The MCVP is used typically only during reactor startup and at power levels less than 5%.

An analysis performed by General Electric Company (GE) for the LaSalle Station showed that continuous operation of the mechanical vacuum pump during the design basis control rod drop accident would result in exceeding the dose limit of Standard Review Plan (SRP) Section 15.4.9, but would remain below the 10 CFR Part 100 exposure guideline values. LaSalle was licensed using the dose limits in SRP Section 15.4.9. Per the same GE analysis, it was determined that tripping the mechanical vacuum pump from the control room in less than or equal to 15 minutes after the postulated accident will assure that the dose limit of SRP Section 15.4.9 is not exceeded. Since tripping the mechanical vacuum pump removes the driving force for the release with a vacuum in the condenser, no further release can occur until the condenser vacuum returns to atmospheric pressure. Further, upstream valves that provide condenser suction for both the off gas system and the mechanical vacuum pump are subsequently closed by operators, thus further reducing the potential for release to the environment as the condenser returns to atmospheric pressure.

The staff has reviewed the licensee's submittal and finds the requirement for immediate operator actions to trip the mechanical vacuum pump within 15 minutes of a main steam line high radiation signal adequate, and thus the submittal acceptable, based on the following:

- 2.1 LaSalle Station procedures LOA 1(2)H13-P603-B305, "Channel A1/B1 Main Steam Line High Radiation;" and LOA 1(2)H13-P603-B309, "Channel A2/B2 Main Steam Line High Radiation;" have been revised to require remote manual trip of the mechanical vacuum pump as an immediate operator action. Information concerning the need to complete this action within 15 minutes to remain within the analysis limits for the off-site dose is provided in the procedures. The "Fuel Element Failure" abnormal procedure (LOA-NB-08) also includes subsequent operator actions requiring the closure of the upstream valves. In addition, LaSalle Station performed a human factors assessment and determined that the required operator action to trip the mechanical vacuum pump within 15 minutes of a control rod drop accident is reasonable and could be performed with the normal complement of operators present during reactor startup in conjunction with all other required actions. The operators have been trained on the revised procedures.

2.2 The staff has reviewed the analysis performed by GE in which the pump trip is assumed to occur 15 minutes after the initiation of the event. The staff has determined that the calculated thyroid and whole body doses received with mechanical vacuum pump operation terminated at 15 minutes following the control rod drop accident are within the NRC acceptance criteria of 75 rem thyroid, and are slightly greater than the acceptance criteria of 6 rem whole body as stated in SRP Section 15.4.9. This is based on the assumption that all of the fission product gases and iodines are transported to the condenser instantaneously, which would cause a main steam line high radiation trip and alarm at the same time. Operator action is not required during the first 15 minutes of the event because the dose resulting from activity released will remain less than the SRP limit of 25% of the maximum allowed dose to the thyroid and will be approximately 26% of the maximum allowed dose to the whole body pursuant to 10 CFR Part 100.

### 3.0 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.

### 4.0 ENVIRONMENTAL CONSIDERATION

The amendments change a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. 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 (58 FR 63403). 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.

Principal Contributor: Janet Kennedy, NRR

Date: July 26, 1994