

Docket No. 50-373/374

JUL 03 1984

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

Dear Mr. Farrar:

Subject: Issuance Amendment No. 17 to Facility Operating License
No. NPF-11 and Amendment No. 2 to Facility Operating
License No. NPF-18-La Salle County Station, Units 1 and 2

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 17 to Facility Operating License No. NPF-11 and Amendment No. 2 to Facility Operating License No. NPF-18 for the La Salle County Station, Units 1 and 2. These amendments are in response to your letter dated May 25, 1984. The amendments change the Technical Specifications for Units 1 and 2 concerning the main steam line temperature difference trip setpoints and allowable values.

A copy of the related safety evaluation supporting Amendment 17 to Facility Operating License NPF-11 and Amendment 2 to Facility Operating License NPF-18 is enclosed.

Sincerely,

Original signed by

A. Schwencer, Chief
Licensing Branch No. 2
Division of Licensing

Enclosures:

1. Amendment No. 17 to NPF-11
2. Amendment No. 2 to NPF-18
3. Safety Evaluation

cc: w/ enclosures
See next page

*DL:LB#2/PM	*DL:LB#2/LA	*DL:LB#2/BC
ABournia:bm	EHylton	ASchwencer
6/ /84	6/ /84	6/ /84
*See previous concurrence		

8408080148 840703
PDR ADOCK 05000373
P PDR

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DL:LB#2/PM
ABournia
6/7/84

DL:LB#2/LA
EHylton
6/7/84

DL:LB#2/BC
ASchwencer
6/26/84

COMMONWEALTH EDISON COMPANY
DOCKET NO. 50-373
LA SALLE COUNTY STATION, UNIT 1
AMENDMENT TO FACILITY OPERATING LICENSE

Amendment 17
License No. NPF-11

1. The Nuclear Regulatory Commission (the Commission or the NRC) having found that:
 - A. The application for amendment filed by the Commonwealth Edison Company, dated May 25, 1984, 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 attachment to this license amendment and paragraph 2.C.(2) of the Facility Operating License No. NPF-11 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. 17, and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the license. The license shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

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

FOR THE NUCLEAR REGULATORY COMMISSION

Original signed by


A. Schwencer, Chief
Licensing Branch No. 2
Division of Licensing

Enclosure:
Changes to the Technical
Specifications

Date of Issuance: JUL 03 1984

AS3
DL:LB#2/PM
ABournia:bdm
6/7/84

AS3/SM
DL:LB#2/LA
EHylton
6/7/84


DL:LB#2/BC
ASchwencer
6/7/84

With changes to be submitted to the Commission
OELD (JW) (10/10/84)
CWoodhead
6/26/84

ENCLOSURE TO LICENSE AMENDMENT NO. 17
FACILITY OPERATING LICENSE NO. NPF-11
DOCKET NO. 50-373

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

REMOVE

3/4 3-15

INSERT

3/4 3-15

TABLE 3.3.2-2
ISOLATION ACTUATION INSTRUMENTATION SETPOINTS

<u>TRIP FUNCTION</u>	<u>TRIP SETPOINT</u>	<u>ALLOWABLE VALUE</u>
<u>AUTOMATIC INITIATION</u>		
1. <u>PRIMARY CONTAINMENT ISOLATION</u>		
a. Reactor Vessel Water Level		> 11.0 inches*
1) Low, Level 3	> 12.5 inches*	> -57 inches*
2) Low Low, Level 2	> -50 inches*	< 1.89 psig
b. Drywell Pressure - High	< 1.69 psig	
c. Main Steam Line		< 3.6 x full background
1) Radiation - High	< 3.0 x full power background	> 834 psig
2) Pressure - Low	> 854 psig	< 116 psid
3) Flow - High	< 111 psid	
d. Main Steam Line Tunnel Temperature - High	< 140°F	< 146°F
e. Main Steam Line Tunnel Δ Temperature - High	< 36 °F	< 42°F
f. Condenser Vacuum - Low	> 7 inches Hg vacuum	> 5.5 inches Hg vacuum
2. <u>SECONDARY CONTAINMENT ISOLATION</u>		
a. Reactor Building Vent Exhaust Plenum Radiation - High	< 10 mr/hr	< 15 mr/hr
b. Drywell Pressure - High	< 1.69 psig	< 1.89 psig
c. Reactor Vessel Water Level - Low Low, Level 2	> -50 inches*	> -57 inches*
d. Fuel Pool Vent Exhaust Radiation - High	< 10 mr/hr	< 15 mr/hr
3. <u>REACTOR WATER CLEANUP SYSTEM ISOLATION</u>		
a. ΔFlow - High	< 70 gpm	< 87.5 gpm
b. Heat Exchanger Area Temperature - High	< 181°F	< 187°F
c. Heat Exchanger Area Ventilation ΔT - High	< 85°F	< 91°F
d. Pump Area Temperature - High	< 116°F	< 122°F
e. Pump Area Ventilation ΔT - High	< 13°F	< 19°F
f. SLCS Initiation	NA	NA
g. Reactor Vessel Water Level - Low Low, Level 2	> -50 inches*	> -57 inches*

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

Amendment 2
License No. NPF-18

1. The Nuclear Regulatory Commission (the Commission or the NRC) having found that:
 - A. The application for amendment filed by the Commonwealth Edison Company, dated May 25, 1984, 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 attachment to this license amendment and paragraph 2.C.(2) of the Facility Operating License No. NPF-18 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. 2, and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the license. The license shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

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

FOR THE NUCLEAR REGULATORY COMMISSION

Original signed by

A. Schwencer, Chief
Licensing Branch No. 2
Division of Licensing

Enclosure:
Changes to the Technical
Specifications

Date of Issuance: **JUL 03 1984**

AB
DL:LB#2/PM
ABournia:bdm
6/ 7/84

EB/for
DL:LB#2/LA
EHylton
6/ 7/84

AS
DL:LB#2/BC
ASchwencer
6/21/84

Woodhead
OELB
CWoodhead
6/29/84

ENCLOSURE TO LICENSE AMENDMENT NO. 2
FACILITY OPERATING LICENSE NO. NPF-18
DOCKET NO. 50-374

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

REMOVE

3/4 3-15

INSERT

3/4 3-15

TABLE 3.3.2-2

ISOLATION ACTUATION INSTRUMENTATION SETPOINTS

<u>TRIP FUNCTION</u>	<u>TRIP SETPOINT</u>	<u>ALLOWABLE VALUE</u>
<u>A. AUTOMATIC INITIATION</u>		
1. <u>PRIMARY CONTAINMENT ISOLATION</u>		
a. Reactor Vessel Water Level		
1) Low, Level 3	> 12.5 inches*	> 11.0 inches*
2) Low Low, Level 2	> -50 inches*	> -57 inches*
b. Drywell Pressure - High	≤ 1.69 psig	≤ 1.89 psig
c. Main Steam Line		
1) Radiation - High	≤ 3.0 x full power background	≤ 3.6 x full background
2) Pressure - Low	> 854 psig	> 834 psig
3) Flow - High	≤ 111 psid	≤ 116 psid
d. Main Steam Line Tunnel		
Temperature - High	≤ 140°F	≤ 146°F
e. Main Steam Line Tunnel		
Δ Temperature - High	≤ 36°F	≤ 42 °F
f. Condenser Vacuum - Low	> 7 inches Hg vacuum	> 5.5 inches Hg vacuum
2. <u>SECONDARY CONTAINMENT ISOLATION</u>		
a. Reactor Building Vent Exhaust		
Plenum Radiation - High	≤ 10 mr/h	≤ 15 mr/h
b. Drywell Pressure - High	≤ 1.69 psig	≤ 1.89 psig
c. Reactor Vessel Water		
Level - Low Low, Level 2	> -50 inches*	> -57 inches*
d. Fuel Pool Vent Exhaust		
Radiation - High	≤ 10 mr/h	≤ 15 mr/h
3. <u>REACTOR WATER CLEANUP SYSTEM ISOLATION</u>		
a. ΔFlow - High	≤ 70 gpm	≤ 87.5 gpm
b. Heat Exchanger Area Temperature		
- High	≤ 181°F	≤ 187°F
c. Heat Exchanger Area Ventilation		
ΔT - High	≤ 85°	≤ 91°F
d. Pump Area Temperature - High	≤ 116°F	≤ 122°F
e. Pump Area Ventilation ΔT - High	≤ 13°F	≤ 19°F
f. SLCS Initiation	N.A.	N.A.
g. Reactor Vessel Water Level -		
Low Low, Level 2	> -50 inches*	> -57 inches*

SAFETY EVALUATION
AMENDMENT NO. 17 TO NPF-11 AND
AMENDMENT NO. 2 TO NPF-18
LA SALLE COUNTY STATION, UNITS 1 & 2
DOCKET NOS. 50-373 AND 50-374

Introduction

By letter dated May 25, 1984, Commonwealth Edison Company (the licensee) proposed amendments that would change the La Salle Units 1 and 2 Technical Specifications setpoints in Table 3.3.2-2 for primary containment Group 1 isolation main steam tunnel differential temperature 12°F , from $\leq 24^{\circ}\text{F}$ to $\leq 36^{\circ}\text{F}$ and the corresponding allowable values from $\leq 30^{\circ}\text{F}$ to $\leq 42^{\circ}\text{F}$. High temperature difference between the outlet and inlet ventilation air for the main steam tunnel is monitored by dual element thermocouples to detect a leak in a main steamline. A high temperature difference signal is used to isolate all four main steamlines and the main steamline drain. The isolation trip setpoint should be selected far enough above the differential temperature expected during operation at rated power to avoid spurious isolations, yet low enough to initiate prompt isolation following a steamline leak. The setpoint is selected low enough to detect a 25 gpm leak in the main steamline tunnel.

Evaluation

The isolation setpoint of $\leq 24^{\circ}\text{F}$ was calculated by Sargent and Lundy, the architect-engineer for the licensee, based on design information rather than actual plant conditions. These calculations were used as the theoretical basis for establishing the Technical Specification setpoint and calculated a normal temperature rise between the inlet air sensors and the outlet air sensors of 6°F . The actual normal (no leakage) differential temperature has been measured as high as 22°F . The differences between the calculated and actual values have been attributed to: (1) lower actual total air flow and a different air distribution in the steam tunnels than used in the original calculation, (2) lower inlet air temperatures to the steam tunnels than originally assumed, and (3) higher heat transfer rates through the main steamline insulation than was used in the original calculations. Sargent and Lundy has performed a reanalysis to determine the proper isolation trip setpoint based on actual plant conditions. The results of this analysis indicate that the main steam tunnel high differential temperature should be set at 36°F with an allowable value of 42°F .

The licensee has stated that the actual differential temperature is so close to the current trip setpoint of 24°F that sufficient margin does not exist to accommodate minor plant ventilation changes or instrument drift without resulting in unnecessary and undesirable spurious isolations. Visual inspections of the steam tunnel have been performed to ensure that no leakage exists. The licensee has experienced problems with spurious single channel trips (half isolations). The licensee, in addition, has stated that the revised differential temperature leak detection setpoint of 36°F will still provide isolation capability for leakage rates at or below 25 gpm.

Based on our review of the licensee's submittal, we conclude that raising the main steam tunnel high differential temperature isolation trip setpoint to

36°F (and corresponding allowable value to 42°F) is necessary to avoid spurious isolations and unnecessary challenges to plant systems, and will still provide early detection and initiate isolation of a steamline leak. The proposed changes to the La Salle Units 1 & 2 Technical Specifications do not change previous staff findings that the main steam tunnel differential temperature instrumentation used to detect and isolate main steamline leaks complies with the criteria listed in Section 7.3 of the Standard Review Plan (NUREG-0800) and, therefore, are acceptable.

Environmental Consideration

This amendment involves a change in the installation or use of a facility component located within the restricted area. The staff has determined that the amendment involves no significant increase in the amounts of any effluents that may be released offsite and that there is no significant increase in individual or cumulative occupation 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 Sec 51.22(c)(9). Pursuant to 10 CFR 51.2(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of this amendment.

Conclusion

We have 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 these amendments will not be inimical to the common defense and security or to the health and safety of the public.

Dated: July 03, 1984