

April 14, 1987

Docket No. 50-374

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. 31 to Facility Operating License
No. NPF-18 - La Salle County Station, Unit 2

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 31 to Facility Operating License No. NPF-18 for the La Salle County Station, Unit 2. This amendment is in response to your letter dated February 26, 1987.

The amendment revises the La Salle Unit 2 Technical Specifications to reflect a low and/or degraded grid voltage modification in Division I of the electrical divisions to complete the requirements of License Condition 2.C.(11) for Unit 2. Divisions II and III are completed and have been approved by Amendment 22.

A copy of the related safety evaluation supporting Amendment No. 31 to Facility Operating License No. NPF-18 is enclosed.

Sincerely,

Original Signed by
D. R. Muller

Daniel R. Muller, Director
Project Directorate III-2
Division of Reactor Projects

Enclosures:

1. Amendment No. 31 to NPF-18
2. Safety Evaluation

cc w/enclosure:
See next page

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PDR ADDCK 05000374
P PDR

*Previously Concurred

BWD-3:DBL
ABournia/vag*
03/17/87

LA:BWD3:DBL
EHylton*
03/20/87

D:BWD-3:DBL DRS:DRDIII-2
EAdensam* DMWier
03/20/87 4/14/87

Mr. Dennis L. Farrar
Commonwealth Edison Company

La Salle County Nuclear Power Station
Units 1 & 2

cc:

Philip P. Steptoe, Esquire
Suite 4200
One First National Plaza
Chicago, Illinois 60603

John W. McCaffrey
Chief, Public Utilities Division
160 North La Salle Street, Room 900
Chicago, Illinois 60601

Assistant Attorney General
188 West Randolph Street
Suite 2315
Chicago, Illinois 60601

Resident Inspector/LaSalle, NPS
U.S. Nuclear Regulatory Commission
Rural Route No. 1
P.O. Box 224
Marseilles, Illinois 61341

Chairman
La Salle County Board of Supervisors
La Salle County Courthouse
Ottawa, Illinois 61350

Attorney General
500 South 2nd Street
Springfield, Illinois 62701

Chairman
Illinois Commerce Commission
Leland Building
527 East Capitol Avenue
Springfield, Illinois 62706

Mr. Gary N. Wright, Manager
Nuclear Facility Safety
Illinois Department of Nuclear Safety
1035 Outer Park Drive, 5th Floor
Springfield, Illinois 62704

Regional Administrator, Region III
U. S. Nuclear Regulatory Commission
799 Rossevelt Road
Glen Ellyn, Illinois 60137

AMENDMENT NO. 31 TO FACILITY OPERATING LICENSE NO. NPF-18 - LA SALLE, UNIT 2

DISTRIBUTION:

Docket No. 50-374

NRC PDR

Local PDR

PRC System

NSIC

BWD-3 r/f

ABournia (2)

EHylton

EAdensam

Attorney, OELD

CMiles

RDiggs

JPartlow

BGrimes

EJordan

LHarmon

TBarnhart (4)

FEltawila

Mary Johns, RIII

EButcher

PShemanski

DMuller



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

COMMONWEALTH EDISON COMPANY

DOCKET NO. 50-374

LA SALLE COUNTY STATION, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 31
License No. NPF-18

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 February 26, 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 Facility Operating License No. NPF-18 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. , 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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P PDR

3. This amendment is effective upon startup following the first refueling outage.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in cursive script, appearing to read "Daniel R. Muller".

Daniel R. Muller, Director
Project Directorate III-2
Division of Reactor Projects

Enclosure:
Changes to the Technical
Specifications

Date of Issuance: April 14, 1987

ENCLOSURE TO LICENSE AMENDMENT NO. 31

FACILITY OPERATING LICENSE NO. NPF-18

DOCKET NO. 50-374

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 3-26
3/4 3-30(a)
3/4 3-34

INSERT

3/4 3-26
3/4 3-30(a)
3/4 3-34

TABLE 3.3.3-1 (Continued)

EMERGENCY CORE COOLING SYSTEM ACTUATION INSTRUMENTATION

<u>TRIP FUNCTION</u>	<u>MINIMUM OPERABLE CHANNELS PER TRIP FUNCTION</u> ^(a)	<u>APPLICABLE OPERATIONAL CONDITIONS</u>	<u>ACTION</u>		
<u>C. DIVISION 3 TRIP SYSTEM</u>					
1. <u>HPCS SYSTEM</u>					
a. Reactor Vessel Water Level - Low, Low, Level 2	4 ^(b)	1, 2, 3, 4*, 5*	35		
b. Drywell Pressure - High	4 ^(b)	1, 2, 3	35		
c. Reactor Vessel Water Level-High, Level 8	2 ^(c)	1, 2, 3, 4*, 5*	32		
d. Condensate Storage Tank Level-Low	2 ^(d)	1, 2, 3, 4*, 5*	36		
e. Suppression Pool Water Level-High	2 ^(d)	1, 2, 3, 4*, 5*	36		
f. Pump Discharge Pressure-High (Bypass)	1	1, 2, 3, 4*, 5*	31		
g. HPCS System Flow Rate-Low (Permissive)	1	1, 2, 3, 4*, 5*	31		
h. Manual Initiation	1/division	1, 2, 3, 4*, 5*	34		
<u>D. LOSS OF POWER</u>					
	<u>TOTAL NO. OF INSTRUMENTS</u>	<u>INSTRUMENTS TO TRIP</u>	<u>MINIMUM OPERABLE INSTRUMENTS(a)</u>	<u>APPLICABLE OPERATIONAL CONDITIONS</u>	<u>ACTION</u>
1. 4.16 kV Emergency Bus Undervoltage (Loss of Voltage)	2/bus	2/bus	2/bus	1, 2, 3, 4**, 5**	37
2. 4.16 kV Emergency Bus Undervoltage (Degraded Voltage)	2/bus	2/bus	2/bus	1, 2, 3, 4**, 5**	37

TABLE NOTATION

- (a) A channel/instrument may be placed in an inoperable status for up to 2 hours during periods of required surveillance without placing the trip system/channel/instrument in the tripped condition provided at least one other OPERABLE channel/instrument in the same trip system is monitoring that parameter.
- (b) Also actuates the associated division diesel generator.
- (c) Provides signal to close HPCS pump discharge valve only on 2-out-of-2 logic.
- (d) Provides signal to HPCS pump suction valves only.
- * Applicable when the system is required to be OPERABLE per Specification 3.5.2 or 3.5.3.
- ** Required when ESF equipment is required to be OPERABLE.
- # Not required to be OPERABLE when reactor steam dome pressure is \leq 122 psig.

TABLE 3.3.3-2 (Continued)

EMERGENCY CORE COOLING SYSTEM ACTUATION INSTRUMENTATION SETPOINTS

<u>TRIP FUNCTION</u>	<u>TRIP SETPOINT</u>	<u>ALLOWABLE VALUE</u>
D. <u>LOSS OF POWER</u> (Continued)		
2. 4.16 kV Emergency Bus Undervoltage (Degraded Voltage)		
a. 4.16 kV Basis		
1) Divisions 1, 2 and 3	3814 ± 76 volts with 10 ± 1 seconds time delay with LOCA signal or 5 ± 0.5 minutes time delay without LOCA signal	3814 ± 76 volts with 10 ± 1 seconds time delay with LOCA signal or 5 ± 0.5 minutes time delay without LOCA signal

TABLE 4.3.3.1-1 (Continued)

EMERGENCY CORE COOLING SYSTEM ACTUATION INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>TRIP FUNCTION</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>CHANNEL CALIBRATION</u>	<u>OPERATIONAL CONDITIONS FOR WHICH SURVEILLANCE REQUIRED</u>
<u>C. DIVISION 3 TRIP SYSTEM</u>				
<u>1. HPCS SYSTEM</u>				
a. Reactor Vessel Water Level - Low Low, Level 2	NA	M	R	1, 2, 3, 4*, 5*
b. Drywell Pressure-High	NA	M	Q	1, 2, 3
c. Reactor Vessel Water Level-High Level 8	NA	M	R	1, 2, 3, 4*, 5*
d. Condensate Storage Tank Level - Low	NA	M	Q	1, 2, 3, 4*, 5*
e. Suppression Pool Water Level - High	NA	M	Q	1, 2, 3, 4*, 5*
f. Pump Discharge Pressure-High	NA	M	Q	1, 2, 3, 4*, 5*
g. HPCS System Flow Rate-Low	NA	M	Q	1, 2, 3, 4*, 5*
h. Manual Initiation	NA	R	NA	1, 2, 3, 4*, 5*
<u>D. LOSS OF POWER</u>				
1. 4.16 kV Emergency Bus Under- voltage (Loss of Voltage)	NA	NA	R	1, 2, 3, 4**, 5**
2. 4.16 kV Emergency Bus Under- voltage (Degraded Voltage)	NA	NA	R	1, 2, 3, 4**, 5**

TABLE NOTATIONS

#Not required to be OPERABLE when reactor steam dome pressure is less than or equal to 122 psig.

*When the system is required to be OPERABLE after being manually realigned, as applicable, per Specification 3.5.2.

**Required when ESF equipment is required to be OPERABLE.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 31 TO FACILITY OPERATING LICENSE NO. NPF-18

COMMONWEALTH EDISON COMPANY

LA SALLE COUNTY STATION, UNIT 2

DOCKET NO. 50-374

1.0 INTRODUCTION

To ensure satisfactory resolution of outstanding concerns regarding the adequacy of station electrical distribution system voltages, the La Salle Unit 2 Operating License contains License Condition 2.C.(11) regarding low and/or degraded grid voltage. The license condition requires the Commonwealth Edison Company (licensee) to install a second level of undervoltage protection prior to startup from the first refueling outage. The concern was that the original design provided no protection for the engineered safety feature (ESF) buses against a degraded voltage condition between the trip setpoint of the normal (first level) of undervoltage relays (60 to 69 percent of rated voltage) and 90 percent of rated voltage.

By letter dated February 26, 1987, the licensee requested an amendment to the La Salle Unit 2 Technical Specifications to include this low and/or degraded grid voltage modification in the Division I of the electrical divisions. The modifications and the changes to the Technical Specifications have been completed for the other electrical divisions, Divisions II and III, and accepted in Amendment 22. This modification will include two undervoltage relays and a time delay relay to each 4.16kV bus which provides protection against degraded grid voltage. The undervoltage relays are connected in a two-out-of-two logic arrangement to prevent spurious trips. The undervoltage relays are set to trip at 92 percent of bus voltage and have a 10 second time delay to prevent momentary voltage drops (e.g., motor starts) from actuating the system. The ESF bus will automatically disconnect from the offsite power sources, shed loads, and transfer to the diesel generator if a degraded voltage condition exists for more than five minutes during normal plant conditions or immediately upon receipt of an emergency core cooling system initiation signal (neither time includes the 10 second sensor time delay).

2.0 EVALUATION

The licensee proposed revisions to the Technical Specification Tables 3.3.3-1, 3.3.3-2, and 4.3.3.1-1 to add the second level of undervoltage protection for Division I.

The staff has reviewed the licensee's submittal and concludes that the degraded grid voltage design for Division I of Unit 2 conforms to the previously approved design, see Amendment No. 22 dated May 9, 1986, and is, therefore, acceptable. The staff has also reviewed the licensee's proposed Technical Specification changes and finds that they appropriately address the actuation sensor, trip setpoints and surveillance requirements for the Division I change made to degraded voltage logic circuit and are, 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 this amendment involves no significant hazards consideration which was published in the Federal Register (52 FR 7879) on March 12, 1987, 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.

Principal Contributor: A. Bournia, BWR Project Directorate No. 3, DBL

Dated: April 14, 1987