**Commonwealth Edison**
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April 26, 1988

U.S. Nuclear Regulatory Commission
ATTENTION: Document Control Desk
Washington, DC 20555

Subject: LaSalle County Station Units 1 and 2
Proposed Amendment to Technical
Specifications for Facility Operating
Licenses NPF-11 and NPF-18 - Core
Performance Monitoring
NRC Docket Nos. 50-373 and 50-374

References (a): Federal Register Volume 51 No. 44
dated March 6, 1986.

(b): Letter dated January 19, 1988 transmitting
Reload Licensing Package for LaSalle Unit 1
Cycle 3.

Dear Sir:

Pursuant to 10 CFR 50.90, Commonwealth Edison proposes to amend Facility Operating Licenses NPF-11 and NPF-18. This amendment is being submitted for your staff's review and approval and is in accordance with Reference (a).

This amendment provides additional requirements for monitoring core performance and other actions to be taken by the reactor operator in the high power/low flow region of the power to flow map. These changes are a result of NRC concerns due to a recent occurrence at LaSalle Unit 2. These changes are unique to LaSalle and are an interim solution to NRC concerns until power to flow stability issues arising from the event at LaSalle are resolved.

Attachment A provides an introduction and discussion. Attachment B provides copies of the changes to be made to the Facility Operating Licenses. Commonwealth Edison has reviewed this document and finds that no significant hazards consideration exists. This review is documented in Attachment C.

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Commonwealth Edison is notifying the State of Illinois of our request for this amendment by transmitting a copy of this letter and its attachments to the designated State Official.

In accordance with 10 CFR 170, a fee remittance in the amount of $150.00 is enclosed.

The effective date of this amendment should be the date of issuance. If you have any additional questions regarding this matter, please contact this office.

Very truly yours,

C. M. Allen
Nuclear Licensing Administrator

lm

Enclosure: $150.00 Fee

Attachments

cc: P. Shemanski - NRR
Regional Administrator - RIII
NRC Resident Inspector - LSCS
M. C. Parker - IDNS

SUBSCRIBED AND SWORN to
before me this 26th day
of April, 1988

Notary Public

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## ATTACHMENT A

## TECHNICAL SPECIFICATION CHANGE REQUEST

## LASALLE COUNTY STATION UNITS 1 AND 2

### BACKGROUND

The LaSalle Unit 1 Cycle 3 (L1C3) Reload Analysis was transmitted to the NRC in Reference (b). The L1C3 Reload Core was calculated to have a stability decay ratio of 0.75 which is less than the NRC criteria of 0.80 for stability monitoring technical specifications. Based on that caculation, no stability monitoring technical specifications changes were included in Reference (b). Subsequently, an event occurred at LaSalle Unit 2 which caused neutron flux oscilations during natural circulation conditions. Since the LaSalle 2 Cycle 2 (L2C2) Core Stability decay ratio was calculated to be 0.60, the event served to question the stability margin calculation for L1C3.. Due to this event and the continuing investigation regarding decay ration calculations, both units at LaSalle will be treated as having "high decay ratio" cores. Technical Specification changes for stability monitoring and actions to be taken by an operator if oscillations are observed are provided as an extra margin of safety until the investigation is completed.

### DISCUSSION

This submittal adds a new specification for recirculation system thermal hydraulic stability. It also clarifies the specification on the reactor recirculation system and revises the bases to reflect these changes. The new specification, as well as the clarifications, follow the guidance of General Electric SIL-380 and similar approaches in other standardized Technical Specifications. These specifications are similar for Units 1 and 2.

Specification 3/4.4.1.5 consolidates the requirements for thermal hydraulic stability. The important aspects of this specification are:

(1) Definition of the power/flow region in roman numerals. This reduces the confusion generated by use of the descriptive titles alone, i.e., "surveillance region - restricted zone", "surveillance region - allowable zone", and "allowable region", which appear in the existing specification.

(2) The actions are contained in a region oriented format. With the old recirculation loop specification doubling as a stability specification, the relative importance of the power/flow map regions was obscured behind the recirc pump status criteria. The new region oriented format is more straightforward and concentrates operator attention to actions required to assure thermal hydraulic stability is [illegible].

(3) Elimination of operation within an Action statement. The new stability specification contains a provision in the LCO to allow operation inside the stability surveillance region. Previously, operation within the surveillance region (Region II) would allow indefinite periods of operation within the action statements.

(4) Immediate actions within Region I to observe APRM and LPRM noise level and exit the Region;

a) When operating with no recirculation pumps on, the specification requires reducing power with control rods to a fixed power level which is conservatively below the 80% flow control line at any achievable flow. With one or two recirc pumps on, flow may be increased to exit Region I with a recirc pump that is already operating.

b) APRM and LPRM noise levels are to be observed during the reduction in core power by control rod insertion. The specification requires that the operator be cognizant of neutron flux noise present in the indicators available to him during the normal course of control rod insertions and to immediately exit the Region. If these observations of the APRMs and LPRMs result in indications of flux oscillations of greater than 10% peak-to-peak, a manual scram is required which is achieved by the operator placing the reactor mode switch into the SHUTDOWN position. This noise level observation does not require a formally documented surveillance since the surveillance requirement applies to Region II only and the operators attention must be concentrated on exiting Region I as soon as possible.

(5) The wording of the surveillance requirement for Region II in the stability monitoring Technical Specification is rearranged such that the wording clearly specifies that the surveillance must be initiated within 15 minutes and completed within the next 30 minutes. This clarification is intended to assist in preventing mistakes and interpretation of the time requirements of the surveillance.

(6) Specification 3.4.1.1 (Reactor Recirculation) is also cross-referenced in this specification to assist the operator in identifying other applicable specifications.

(7) In order to facilitate rapid recognition of instability, a fixed noise criteria was added in addition to the existing criteria of 3 times the baseline noise level. This fixed criteria of 10% meter indication (peak-to-peak noise) has been justified by General Electric and is a logical and easily remembered criteria for the operator. The APRM and LPRM noise meters cannot be accurately read to within less than 2 to 3 meter units. Therefore baseline noise indication of less than 3 meter units would not be meaningful for stability monitoring.

The Reactor Recirculation Loops Specification (3/4.4.1.1) has also been revised to cross reference the Thermal Hydraulic Stability Technical Specification (3/4.1.5). This is to make the specifications "user friendly" and minimize the possibility that a required action in another specification might be forgotten.

The bases have been revised to provide guidance that in Region I the operators top priority is to observe neutron flux indication and exit the Region promptly. If neutron flux oscillations are observed the operator is to scram the unit by placing the reactor mode switch to the SHUTDOWN position.

**ATTACHMENT B**

TECHNICAL SPECIFICATION CHANGE REQUEST

LASALLE COUNTY STATION UNITS 1 AND 2

PROPOSED CHANGES TO APPENDIX A

CHANGED PAGES:

| NPF-11 | | NPF-18 | |
|---|---|---|---|
| VI | (Revised) | VI | (Revised) |
| XIX | (Revised) | XIX | (Revised) |
| 3/4 4-1 | (Replaced) | 3/4 4-1 | (Replaced) |
| 3/4 4-1a | (Replaced) | 3/4 4-2 | (Replaced) |
| 3/4 4-1b | (Deleted) | 3/4 4-2a | (Deleted) |
| 3/4 4-4a | (New) | 3/4 4-5a | (New) |
| 3/4 4-4b | (New) | 3/4 4-5b | (New) |
| 3/4 4-4c | (New) | 3/4 4-5c | (New) |
| B 3/4 4-1 | (Revised) | B 3/4 4-1 | (Revised) |