

December 21, 1995

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D.C. 20555



SUBJECT: LaSalle County Nuclear Power Station Units 1 and 2
Request for Technical Specification Amendment
Facility Operating License NPF-11 and NPF-18
Deletion of LCO 3.4.2 (Safety/Relief Valves) Action Statement b
NRC Docket Nos. 50-373 and 50-374

Pursuant to 10 CFR 50.90, Commonwealth Edison (ComEd) proposes to amend Appendix A, Technical Specifications, of Facility Operating License NPF-11 and NPF-18. The proposed change deletes Technical Specification Limiting Condition for Operation (LCO) 3.4.2. (Safety/Relief Valves), Action Statement b. The Action Statement requires placing the reactor mode switch in the Shutdown position, thus manually scrambling the reactor, if unable to close a stuck open safety/relief valve (SRV) within two minutes, or if suppression pool average water temperature is 110 degrees F or greater. The operator would still be required to manually scram the reactor if suppression pool average water temperature is 110 degrees F or greater in accordance with LCO 3.6.2.1 (Depressurization Systems), Action Statement b.1.

Also enclosed with this package are marked up Index pages XII for LaSalle Units 1 and 2. These pages were originally included in the May 23, 1995 G. Benes letter to USNRC. This letter described Technical Specification Bases changes that were performed by ComEd pursuant to 10 CFR 50.59. From recent discussions with the LaSalle NRC Project Manager it has been determined that the Index pages for these bases changes can not be changed by the 10 CFR 50.59 process, but instead need to be issued as an amendment pursuant to 10 CFR 50.90. The Index page changes are editorial, as only page number references are changed. Therefore, ComEd proposes that the enclosed Index pages XII for LaSalle Units 1 and 2 be changed pursuant to 10 CFR 50.90.

This proposed amendment request is subdivided as follows:

1. Attachment A gives a description and safety analysis of the proposed changes in this amendment.
2. Attachment B includes a summary of the proposed changes and the marked-up Technical Specifications pages for LaSalle Units 1 and 2, with the requested changes indicated.
3. Attachment C describes ComEd's evaluation performed in accordance with 10CFR50.92(c), which confirms that no significant hazard consideration is involved.
4. Attachment D provides an Environmental Assessment Applicability Review per 10 CFR 51.21.

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December 21, 1995

This request for a Technical Specification Amendment has been reviewed and approved by ComEd Senior Management, as well as On-Site and Off-Site Review in accordance with Commonwealth Edison procedures.

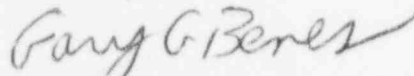
ComEd believes this amendment is needed to support continued safe operation of the plant and should be classified a Priority 2 per the NRC Prioritization Process. If the two minute requirement to manually scram after a SRV becomes stuck open is not removed, the operator has to scram the reactor, thus challenging the Reactor Protection System, the reactor vessel, and other associated components and systems. Therefore, ComEd requests that this amendment be approved by the NRC within about six months, i.e., NRC approval by approximately June of 1996, with an implementation time of 60 days.

To the best of my knowledge and belief, the statements contained above are true and correct. In some respect these statements are not based on my personal knowledge, but obtained information furnished by other Commonwealth Edison employees, contractor employees, and consultants. Such information has been reviewed in accordance with company practice, and I believe it to be reliable.

Commonwealth Edison is notifying the State of Illinois of this application for amendment by transmitting a copy of this letter and its attachments to the designated state official.

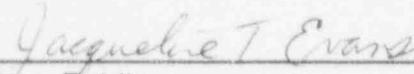
Please direct any questions you may have concerning this submittal to this office.

Sincerely,

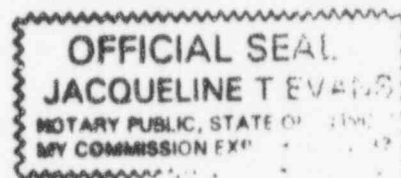


Gary G. Benes
Nuclear Licensing Administrator

Subscribed and Sworn to before me
on this 21st day of
December, 1995.



Notary Public



Attachments:

- A. Description and Safety Analysis of the Proposed Changes
- B. Marked-Up Technical Specification Pages
- C. Evaluation of Significant Hazards Considerations
- D. Environmental Assessment Applicability Review

cc: H. J. Miller - Regional Administrator, Region III
P. G. Brochman - Senior Resident Inspector, LaSalle County Station
M. D. Lynch - Project Manager, NRR
Office of Nuclear Facility Safety - IDNS

ATTACHMENT A

DESCRIPTION AND SAFETY ANALYSIS OF THE PROPOSED CHANGES

Description of the Proposed Change

A proposed license amendment to the Technical Specifications for LaSalle County Station Units 1 and 2. This amendment proposes to delete LCO 3.4.2. (Safety/Relief Valves), Action Statement b. The Action Statement requires placing the reactor mode switch in the Shutdown position, thus manually scrambling the reactor, if unable to close a stuck open safety/relief valve (SRV) within two minutes, or if suppression pool average water temperature is 110 degrees F or greater. The operator would still be required to manually scram the reactor if suppression pool average water temperature is 110 degrees F or greater in accordance with LCO 3.6.2.1 (Depressurization Systems), Action Statement b.1.

Description of the Current Operating License/Technical Specification Requirement

LCO 3.4.2 (Safety Relief Valves), Action Statement b. currently requires the following:

With one or more safety/relief valves stuck open, provided that suppression pool average water temperature is less than 110°F, close the stuck-open relief valve(s); if unable to close the open valve(s) within 2 minutes or if suppression pool average water temperature is 110°F or greater, place the reactor mode switch in the Shutdown position.

LCO 3.6.2.1 (Depressurization Systems), Action Statement b.1 currently requires the following:

With the suppression chamber average water temperature greater than 110°F, place the reactor mode switch in the Shutdown position and operate at least one residual heat removal loop in the suppression pool cooling mode.

Bases for the Current Requirement

The LaSalle Technical Specification Bases for Section 3/4.4.2, Safety/Relief Valves includes the following:

The safety valve function of the safety/relief valves operate to prevent the reactor coolant system from being pressurized above the Safety Limit of 1325 psig in

accordance with the ASME Code. Analysis has shown that with the safety function of one of the eighteen safety/relief valves inoperable, the reactor pressure is limited to within ASME III allowable values for the worst case upset transient. Therefore, operation with any 17 SRVs capable of opening is allowable, although all installed SRVs must be closed and have position indication available to ensure that the integrity of the primary coolant boundary is known to exist at all times.

Technical Specification Bases Section 3/4.6.2, Depressurization Systems, also includes the following in regards to SRVs:

In addition to the limits on temperature of the suppression chamber pool water, operating procedures define the action to be taken in the event of safety/relief valve inadvertently opens or sticks open. As a minimum this action shall include: (1) use of all available means to close the valve, (2) initiate suppression pool water cooling, (3) initiate reactor shutdown, and (4) if other safety-relief valves are used to depressurize the reactor, their discharge shall be separated from that of the stuck open safety relief valve to assure mixing and uniformity of energy insertion to the pool.

Description of the Need for Amending the Technical Specification

In compliance with current LaSalle Technical Specifications, the operator must manually scram the reactor within two minutes of a SRV becoming stuck open. Two minutes may not be long enough for an operator to take all the necessary mitigating actions for a stuck open SRV prior to manually scrambling the reactor. However, as discussed in the upcoming section, "Bases for Amended Technical Specification Request", the reactor scram is only appropriate if the suppression pool average water temperature approaches its Technical Specifications limit of 110 degrees F.

It is estimated that a stuck open SRV at LaSalle results in a suppression pool average water temperature rise of about two degrees F for every minute the SRV is open. Therefore, the maximum allowed time for the operator to take the necessary mitigating actions for a stuck open SRV event depends on the initial suppression pool average water temperature at the time the event occurs and the number of stuck open SRVs. Thus the current two minute requirement to scram with a stuck open SRV would be overly conservative if a single SRV becomes stuck open when the suppression pool temperature is initially at 70 degrees F. The operator would have almost 20 minutes before the suppression pool average water temperature reaches 110 degrees F, but would shut down the reactor unnecessarily because of the requirement to manually scram the reactor within two minutes if unable to close the stuck open SRV. Initiating a manual scram after the SRV has been stuck open for two minutes should be avoided because it adds another unnecessary challenge to the reactor protection system (RPS), the reactor vessel, and the associated components.

This proposed change is consistent with the Improved Technical Specifications (NUREG-1433/1434 for BWR-4/BWR-6, respectively).

Therefore, ComEd requests a Technical Specification amendment to delete LCO 3.4.2. (Safety Relief Valves), Action Statement b.

Description of the Amended Technical Specification Requirement

ComEd proposes to delete LCO 3.4.2 Action Statement b., and rename LCO 3.4.2 Action Statement c. to LCO Action Statement b., so that the revised Action Statement b. states:

With one or more of the above safety/relief valve stem position indicators inoperable, restore the inoperable stem position indicators to OPERABLE status within 7 days or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

ComEd also proposes that the last paragraph of Technical Specification Bases Section 3/4.6.2, be modified accordingly to state:

In addition to the limits on temperature of the suppression chamber pool water, operating procedures define the action to be taken in the event a safety-relief valve inadvertently opens or sticks open. As a minimum this action shall include: (1) use of all available means to close the valve, (2) initiate suppression pool water cooling, (3) initiate reactor shutdown when suppression pool average water temperature is 110°F or greater, and (4) if other safety-relief valves are used to depressurize the reactor, their discharge shall be separated from that of the stuck-open safety relief valve to assure mixing and uniformity of energy insertion to the pool.

Bases for the Amended Technical Specification Request

The design basis for SRVs is primarily to protect the reactor vessel from the overpressure condition, and a stuck open SRV or an inadvertent open SRV does not violate this design basis requirement. The opening of a SRV allows steam to be discharged into the suppression pool. The sudden increase in the rate of steam flow leaving the reactor vessel causes the reactor vessel coolant mass inventory to decrease. The pressure regulator senses the nuclear system pressure decrease and closes the turbine control valve far enough to stabilize reactor vessel pressure at a slightly lower value, and reactor power settles at nearly initial power level. Minimum critical power ratio (MCPR) is essentially unchanged, safety margin unaffected and

fuel barrier unchallenged. Thus there is no radiological consequence and this event is indeed a mild depressurization transient. The acceptable results from this analysis require no operator action to protect fuel or maintain radiological limits.

However, a stuck open or inadvertently open SRV during power operation heats up the suppression pool. The operator must try to close the SRV in order to cease inserting reactor heat energy into the suppression pool. The design basis for the suppression pool requires that it should accommodate a total reactor blowdown event at all conditions. The upper limit of the suppression pool average water temperature to meet this requirement is 110 degrees F (Technical Specification 3.6.2.1 Action b.1), at which time the reactor must be scrammed to limit the reactor blowdown energy to the suppression pool.

This proposed change is consistent with the Improved Technical Specifications (NUREG-1433/1434 for BWR-4/BWR-6, respectively).

The design bases for both the SRV and the suppression pool during a stuck open SRV event are satisfied by the requirement to manually scram if the suppression pool average water temperature is 110 degrees or greater. The requirement to manually scram the reactor within two minutes if unable to close the stuck open SRV(s) is not needed, and can therefore be removed with no safety impact.

Schedule

There are no specific schedule requirements associated with this amendment proposal. Therefore, ComEd requests that this amendment be approved by the NRC within about six months, i.e., NRC approval by approximately June of 1996, with an implementation time of 60 days.

ATTACHMENT B

PROPOSED CHANGES TO THE LICENSE/TECHNICAL SPECIFICATIONS

NPF-11

XII
3/4 4-5
3/4 6-16*
B 3/4 4-2*
B 3/4 6-3*
B 3/4 6-4

NPF-18

XII
3/4 4-6
3/4 6-19*
B 3/4 4-1a*
B 3/4 6-3*
B 3/4 6-4

* There are no changes to these pages, they are provided for information only