



Commonwealth Edison
1400 Opus Place
Downers Grove, Illinois 60515

April 24, 1991

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

Subject: LaSalle County Station Units 1 and 2
Application for Amendment to Facility
Operating Licenses NPF-11 and NPF-18
Appendix A, Technical Specifications
NRC Docket Nos. 50-373 and 50-374

Gentlemen:

Pursuant to 10 CFR 50.90 Commonwealth Edison (CECo) proposes to amend Appendix A, Technical Specifications, of Facility Operating Licenses NPF-11 and NPF-18. The amendment request proposes the following: 1) provide Allowed Outage Times (AOT) for the Scram Discharge Volume (SDV) Vent and Drain Valves; 2) remove from the Control Rod Operability Technical Specifications the Unit 1 and Unit 2 SDV Surveillance Requirements for SDV Level Instrumentation. It is requested that the amendments be made effective 45 days from the date of approval to allow time for any required procedural revisions to be completed.

The 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 the marked-up Technical Specification pages with the requested changes indicated.
3. Attachment C describes CECo's evaluation performed in accordance with 10 CFR 50.92 (c), which confirms that no significant hazards consideration is involved.
4. Attachment D provides the Environmental Assessment.

This proposed amendment has been reviewed and approved by CECo On-Site and Off-Site Review in accordance with Commonwealth Edison procedures.

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.

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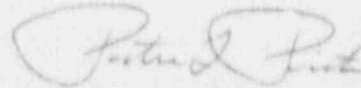
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To the best of my knowledge and belief, the statements contained within are true and correct. In some respect these statements are not based on my personal knowledge, but obtained information furnished by other Commonwealth Edison employees, contractor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

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

Very truly yours,



Peter L. Piet
Nuclear Licensing Administrator

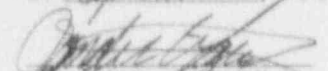
Attachments

- A. Description of Safety Analysis of the proposed changes.
- B. Marked-up Technical Specification Pages
- C. Evaluation of Significant Hazards Consideration
- D. Environmental Assessment

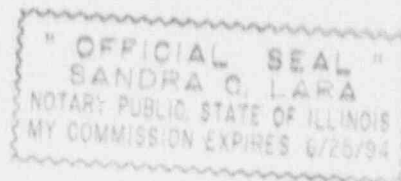
cc: A.B. Davis, Regional Administrator - RIII
Senior Resident Inspector - LSCS
B. Siegel, Project Manager - NRR
Office of Nuclear Facility Safety - IDNS

ZNLD/745-5

Subscribed and Sworn to
before me this 24th day
of April, 1991



Notary Public



ZNLD/745/6

Attachment A

Description and Bases of the Proposed Changes

Description

This amendment request proposes two changes to the Technical Specifications concerning the Control Rod Drive (CRD) system and the scram discharge volume (SDV) vent and drain valves. The first change proposes to provide an allowed outage time (AOT) for the Surveillance Requirements pertaining to the periodic valve position verification and valve cycling of the SDV vent and drain valves. Currently there are no AOTs and if one or more of these valves is discovered to be inoperable an immediate plant shutdown is required.

The second change proposes to remove the Surveillance Requirements for SDV level detector instrument testing. The SDV level detectors have been modified and the current Technical Specification surveillances do not apply. The Surveillance Requirements for the current SDV level detectors are addressed in the Reactor Protection System Instrumentation Technical Specifications which provides appropriate action requirements and allowed outage times should one or more of the instruments become inoperable.

Bases of the Proposed Changes

The scram discharge volume is separated into two sections which are cross-connected at the bottom by a two inch drain line and at the top by a one inch vent line. The SDV vent and drain valves branch from these cross-connected lines. Under normal operating conditions, the SDV vent and drain valves are maintained open to ensure that the SDV is drained, de-pressurized and capable of containing the water released from the CRDs during a reactor scram. Upon initiation of a reactor scram, the SDV vent and drain valves will automatically close. This will allow pressurization of the SDV piping to full reactor pressure and thus limit the amount of water that can be released from the reactor during CRD insertion. The two failure modes to which the vent and drain valves are susceptible are:

- Failed Closed - If a drain valve fails closed the SDV will gradually fill with water caused by normal leakage from the CRD system. The increasing level will cause successively an alarm, a control rod block and finally a reactor scram if action is not taken to reopen the valve and drain the SDV. Thus, the ability to shut the reactor down under this failure mode is not impaired.
- Failed Open - The system is configured with two redundant vent valves in series and two redundant drain valves in series. If one of the vent valves and/or one of the drain valves fail to close, the system maintains isolation capability. However, should the SDV vent and/or drain pathways fail to isolate following a reactor scram, a loss of coolant accident will result due to leakage of reactor coolant past the CRD seals into the secondary containment. The water discharged from the control rod drives will be at reactor temperatures and can be hot enough to flash to steam causing a spread of contamination inside of the secondary containment. The steam also has the potential to affect equipment inside of the secondary containment. Since the water discharged from the SDV will be relatively small in volume, an event of this type is more of a concern.

Attachment A (Cont'd)

Currently the Surveillance Requirements for the CRD system SDV vent and drain valves periodic valve position verification and valve cycling do not provide an allowed outage time for these components. If one or more of these valves were discovered to be inoperable an immediate plant shutdown is required. This situation limits plant operational flexibility and can heighten the risk of a unit scram and/or challenges to safety systems during the course of an unnecessary plant shutdown.

The current LaSalle County station Technical Specifications were patterned after the Standard Technical Specifications of that era which did not specify AOTs as part of the surveillance requirement. Other recently licensed BWR's similar in vintage to LaSalle (Clinton, Nine Mile Point, Perry and Fermi 2) have AOTs for the vent and drain valves incorporated into their technical specifications. LaSalle Station is proposing to amend its Technical Specifications to include action statements with the following AOT's for the vent and drain valves:

- d. With one scram discharge volume vent valve and/or one scram discharge volume drain valve inoperable and open, restore the inoperable valve(s) to OPERABLE status within 24 hours or be in at least HOT SHUT DOWN within the next 12 hours.
- e. With any scram discharge volume vent valve(s) and/or any scram discharge volume drain valve(s) otherwise inoperable, restore the inoperable valve(s) to OPERABLE status within 8 hours or be in at least HOT SHUTDOWN within the next 12 hours.

Section d allows 24 hours to return the valve to operable status. This time is considered necessary to diagnose and correct the problem and is not excessive since there is a redundant operable valve in the line that assures the SDV can perform its function. Additionally, the probability of a scram during this time is low. However, Section e allows only 8 hours since the potential for an inadvertent scram due to high SDV level is increased during this time.

The proposed amendment follows the precedent set by the above mentioned stations and uses wording for the action statements which is identical to that of Clinton Station. There are no major design differences between LaSalle County Station's SDV system as compared to Clinton Station that would impact the applicability of the requested AOTs.

Additionally, this submittal proposes that Surveillance Requirement 4.1.3.1.4.b for the SDV level detector instrument testing be removed from both the Unit 1 and Unit 2 Technical Specifications. The current Unit 1 and Unit 2 requirements are as follows:

Unit 1 - Specification 4.1.3.1.4.b requires a channel functional test of SDV instrumentation following a reactor scram only.

Unit 2 - Specification 4.1.3.1.4.b requires a monthly channel functional test of the SDV instrumentation.

Attachment A (Cont'd)

The Technical Specifications are different for the two units due to past differences between the units regarding the SDV level instrumentation. The original design for LaSalle Station required float switches for the SDV level detectors. However, industry experience showed that the floats for these switches were susceptible to being crushed after a reactor scram. This would occur while the reactor was at normal operating pressure, thus rendering the switches inoperable. In order to prevent this situation from happening, the following actions were taken:

- 1) Unit 1 - The short term action taken was adding to the Technical Specifications a requirement to perform a channel functional test of the float switches following a reactor scram. This test was performed to ensure that the switches were free of damage and fully operable. The long term action was a commitment to install diverse and redundant level detection instrumentation on the SDV. This commitment was added to the Unit 1 License as a license condition.
- 2) Unit 2 - Differential pressure (dP) type level switches were installed on Unit 2 prior to licensing. The dP switches were installed because they were not susceptible to pressure induced damage as compared to the float switches.

The modification for Unit 1 was completed and the license condition was closed in an NRC inspection report in June 1986. As a result of the modification to Unit 1, the SDV instrumentation configuration for the two units is now identical but Specification 4.1.3.1.4.b for the two units differ.

This amendment request proposes to remove Specification 4.1.3.1.4.b from both units because:

- Unit 1 The requirement of a channel functional test of SDV instrumentation following a reactor scram is no longer necessary because of the installation of the differential pressure type level switches.
- Unit 2 The requirement to perform a channel functional test of SDV instrumentation at least once per 31 days is currently addressed in the Technical Specifications for RPS instrumentation (Specification 4.3.1.1) and Control Rod Block instrumentation (Specification 4.3.6). These specifications provide appropriate action requirements and allowed outage times should one or more of the instruments become inoperable.
- The deletion of these technical specifications will not effect the current surveillance requirements and are adequately addressed in the above mentioned Technical Specifications.