



November 8, 1996

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

Subject: Zion Station Units 1 and 2
Supplement 2 to Amendment Application
Facility Operating Licenses DPR-39 and DPR-48
NRC Docket Nos. 50-295 and 50-304

Reference: a) Letter from R. P. Tuetken, Commonwealth Edison, to U.S. Nuclear
Regulatory Commission, dated July 26, 1996 - Application for
Amendment to Facility Operating Licenses DPR-39 and DPR-48.
b) Letter from J. H. Mueller, Commonwealth Edison, to U.S. Nuclear
Regulatory Commission, dated October 14, 1996 - Supplement to an
Application for Amendment to Facility Operating Licenses DPR-39 and
DPR-48.

This letter transmits, pursuant to 10 CFR 50.90, a second supplement (Supplement 2) to a previous application for an amendment to Appendix A of the Zion Unit 1 and 2 Facility Operating Licenses, DPR-39 and DPR-48.

Commonwealth Edison (ComEd) previously submitted, in Reference (a), a proposed amendment to remove requirements governing reactor coolant system (RCS) pressure and temperature limits from the Technical Specifications, and relocate these requirements to a ComEd controlled Pressure/Temperature Limits Report (PTLR). A copy of the PTLR, containing updated limits, was submitted as Attachment F to the amendment application. Reference (b) transmitted the first supplement to the original amendment application.

The purpose of Supplement 2 is to add a new requirement to the PTLR. The new requirement will define a minimum temperature, including instrument uncertainty, at which the reactor vessel can be pressurized. Supplement 2 also clarifies the meaning of "Reactor Vessel Boltup." Supplement 2 is comprised of the following attachments to this letter:

Attachment A provides a description and safety analysis of the proposed Supplement 2

Attachment B provides a copy of the affected pages of the PTLR.

Attachment C documents ComEd's conclusion that the previously submitted Evaluation of Significant Hazards Considerations remains valid.

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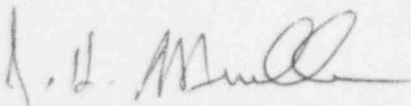
Attachment D documents ComEd's conclusion that the previously submitted Environment Assessment remains valid.

Supplement 2 has been reviewed and approved by Zion Station Onsite and Offsite Review personnel in accordance with ComEd procedures. To the best of my knowledge and belief, the statements contained in this supplement to an amendment application are true and correct. In some respects these statements are not based on my personal knowledge, but obtained from information furnished by other ComEd employees, contract employees, and consultants. Such information has been reviewed in accordance with company practices, 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.

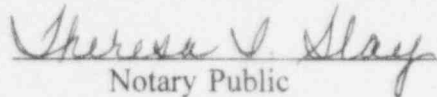
Please direct any questions you may have concerning this submittal to this office.

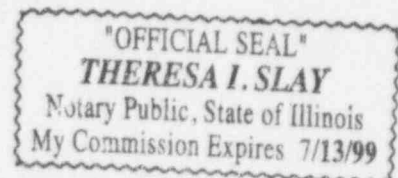
Respectfully,



J. H. Mueller
Site Vice President
Zion Station

Subscribed and Sworn to before me, a Notary Public in and for
the State of Illinois and County of Lake
this 8th day of November, 1996.


Notary Public



Attachment

cc: NRC Regional Administrator - RIII
Zion Station Project Manager - NRR
Senior Resident Inspector - Zion Station
Office of Nuclear Facility Safety - IDNS
IDNS Resident Inspector
Zion NLA
Master Files
Reg. Assurance File
DCD Licensing

ATTACHMENT A

ZION NUCLEAR GENERATING STATION

DESCRIPTION AND SAFETY ANALYSIS FOR PROPOSED CHANGES TO APPENDIX A TECHNICAL SPECIFICATIONS FACILITY OPERATING LICENSES DPR-39 AND DPR-48

SUPPLEMENT 2 TO LICENSE AMENDMENT REQUEST 96-02

DESCRIPTION OF PREVIOUSLY PROPOSED AMENDMENT

In Reference (a) ComEd proposed to amend Appendix A, Technical Specifications, of Facility Operating Licenses DPR-39 and DPR-48, to allow licensee control of the RCS pressure and temperature limits for heatup, cooldown, low temperature operation, and hydrostatic testing. These limits would be specified in a ComEd controlled Pressure Temperature Limits Report (PTLR), a copy of which was submitted with the proposed amendment.

DESCRIPTION OF SUPPLEMENT 2 TO PROPOSED AMENDMENT

Supplement 2 modifies the previously submitted PTLR by adding requirements for the minimum temperature for pressurizing the reactor coolant system, including an allowance for instrument uncertainty. Supplement 2 also clarifies the meaning of "Reactor Vessel Boltup."

NEED FOR SUPPLEMENT 2

Supplement 2 provides added assurance of brittle fracture protection for the reactor vessel at low temperatures. The need for this added assurance was identified during discussions with members of the NRC Staff.

CURRENT PTLR REQUIREMENTS AND BASES

The current PTLR specifies values for the Low Temperature Overpressure Protection (LTOP) pressure relief set points, the LTOP enable temperature, and the reactor vessel boltup temperature. These requirements are intended to address concerns arising from the loss of ductility by reactor vessel materials at reduced temperatures, and are based on calculations performed by ComEd and Westinghouse.

ATTACHMENT A

DESCRIPTION AND BASES OF SUPPLEMENT 2

Supplement 2 adds an additional requirement to the previously submitted PTLR. The additional requirement (contained in new paragraph 2.5) defines the minimum temperature at which the reactor vessel can be pressurized (i.e., can be in an un-vented condition), and includes an allowance for the uncertainty of the instrument used to measure the temperature. This minimum pressurization temperature is based on the minimum bolt up temperature of $\geq 60^{\circ}\text{F}$, as documented in WCAP 14664, "Zion Units 1 and 2 Heatup and Cooldown Curves for Normal Operation," dated June, 1996.

The temperature uncertainty allowance is to be determined using a process consistent with ISA S67.04 - 1982. This was indicated as the appropriate edition of the ISA, rather than ISA 67.04 - 1994 (which was accepted by the NRC in the SER for WCAP - 14040-NP-A), since the 1982 edition is currently more widely accepted within the NRC, and since there are no conflicts between the two editions of the ISA.

Supplement 2 also clarifies the meaning of "Reactor Vessel Boltup." This clarification provides added assurance that the reactor vessel will not be pressurized unless the minimum pressurization temperature requirements discussed above are met.

Attachment B provides a copy of the affected pages (pages i, 2, and 3). These pages should be inserted in the PTLR, and the existing pages i, 2, and 3, should be removed. Revision bars in the right margin of the new pages indicate the affected portions of the text. There are no revision bars on page 3 since the only change to that page was the relocation of a paragraph that was formerly on page 2.