



**Commonwealth Edison**

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October 3, 1980

Mr. Harold R. Denton, Director  
Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

Subject: Zion Station Units 1 and 2  
Proposed Amendment to Facility  
Operating License Nos. DPR-39 and DPR-48  
NRC Docket Nos. 50-295 and 50-704

References (a): July 16, 1980 letter from Steven A. Varga to  
D. Louis Peoples

(b): September 18, 1980 letter from W. F. Naughton  
to H. R. Denton

Dear Mr. Denton:

Pursuant to Reference (a) and 10 CFR 50.90 Commonwealth Edison Company hereby requests a change to Facility Operating License Nos. DPR-39 and DPR-48, Appendix A, Technical Specifications. The purpose of this amendment is to upgrade the Zion Station Technical Specifications in numerous areas, delineated in Reference (a), commensurate with the requirements of the Standard Technical Specifications for Westinghouse PWRs. An explanation of the proposed changes, including those from previous submittals currently under NRC Staff review, and the proposed changes to the Zion Station Technical Specifications are contained in Attachment 1 to this letter. Additional information concerning these changes and a discussion of the items delineated in Reference (a) follows.

Commonwealth Edison has been performing a detailed review of the fifty-six (56) areas identified in Reference (a) with respect to the current Zion Technical Specifications, the Standard Technical Specifications, previously proposed license amendments, the ongoing PRA (Probabilistic Risk Assessment) and accident mitigation studies for Zion Station, and the NRC Staff's proposed rule pertaining to technical specifications. The scope of this review has been quite extensive and is continuing. At this time the 56 items of Reference (a) have been categorized into three specific areas.

1. Proposed technical specification changes contained herein (24 items);

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2. Items requiring further analysis or study (25 items);  
and
3. Items not applicable to Zion Station (7 items).

As previously indicated, the proposed changes including explanations for the changes are contained in Attachment 1 to this letter.

Attachment 2 contains a list of the twenty-five (25) items of Reference (a) that Commonwealth Edison has deferred action on for the reasons cited below.

Attachment 3 contains the remaining seven (7) items of Reference (a) which in Commonwealth Edison's view are not specific to the design of Zion Station or are not compatible with the operation of the plant. The basis for these determinations are also included in the attachment.

In Reference (a), the NRC Staff also questioned the conservatism of two figures in the current Zion Station Technical Specifications. These figures have been verified to be conservative. In the event that a given cycle design would cause a figure or table in the Zion Technical Specifications to become less conservative, a technical specification change would be submitted prior to startup of the affected unit for the ensuing cycle.

With regard to the deferred items of Attachment 2, Commonwealth Edison's On-Site and Off-Site Review function have determined that additional analyses and/or plant modifications are required before technical specification changes can be considered. For example, plant modifications due to TMI requirements, as in the case of hydrogen analyzers, have yet to be completed on both units. Other studies are underway to aid in evaluating out-of-service times for ECCS equipment upgrading instrument setpoints and evaluating the number of incore thimbles required for peaking factor analyses. As some of these analyses and plant modifications are completed, license amendments will be submitted. However, many of the items will be deferred until completion of the extensive Zion PRA study being performed by Pickard, Lowe, and Garrick (PL&G), primarily because the current Zion Station Technical Specification is one of the base documents being utilized in that study. That study is currently nearing completion. Thus, in order to avoid invalidating portions of the PL&G study or delays in completion of the study, Commonwealth Edison proposes deferring action on the applicable items of Attachment 2 until the PL&G study is complete. At that time perturbation or sensitivity studies coupled with operating experience will be performed on the PL&G results to provide

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a better basis for implementing the NRC Staff's proposed changes. Finally, Commonwealth Edison has inaugurated a longer term program to convert the Zion Station Technical Specifications to the format of the Standard Technical Specifications for Westinghouse PWRs. This program will be completed on the same schedule as the FSAR update schedule.

Commonwealth Edison understands that the NRC Staff's request of Reference (a) is based on the risk the Staff believes that Zion Station represents. Commonwealth Edison does not concur with the NRC Staff that Zion Station represents an additional risk over and above other plants. On February 20, 1980 Commonwealth Edison in conjunction with the Power Authority of the State of New York and Consolidated Edison Company presented the results of their 60 day study on mitigation of severe accidents to the NRC Staff. This study was docketed for Zion Station on June 9, 1980 per a D. L. Peoles to H. R. Denton letter. The results of this study revealed that, due to additional features incorporated in the initial design of the Zion units, these reactors do not pose the risk stated by the Staff in its comparison to the WASH-1400 plant. Subsequent meetings involving technology exchanges with the NRC Staff, as part of our detailed probability risk analysis work for Zion Station, have continued to support Commonwealth Edison's position, as has the continuing detailed Zion PRA study being performed by PL&G. Therefore, based on these considerations, Commonwealth Edison has concluded that the action on the items contained in Attachment 2 can be deferred until completion of the Zion PL&G study. At that time, those potential items identified in the PL&G study as requiring additional study can be coupled with those of Attachment 2 and addressed at one time, thus reducing the impact on the overall, operations including operator training, of the Zion units.

The proposed changes of Attachment 1 have been reviewed and approved by Commonwealth Edison On-Site and Off-Site Review with the conclusion that there are no unreviewed safety questions.

Pursuant to 10 CFR 170, Commonwealth Edison has determined that this proposed amendment is a combined Class I and Class II amendment. As such, Commonwealth Edison has enclosed a fee remittance in the amount of \$1,600.00 for this proposed amendment. The basis for this determination is that the proposed changes are administrative in nature i.e., they convert certain requirements of the Zion Station Technical Specifications into Standard Technical Specification requirements.

Please address any questions that you may have concerning this matter to this office.

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Three (3) signed originals and thirty-seven (37) copies of this transmittal are provided for your use.

Very truly yours,

*W. F. Naughton*

W. F. Naughton  
Nuclear Licensing Administrator  
Pressurized Water Reactors

Attachments (3)  
Enclosure

cc: Resident Office - Zion

SUBSCRIBED and SWORN to  
before me this 3rd, day  
of October, 1980

*[Signature]*  
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Notary Public

ATTACHMENT 1

Zion Station Units 1 and 2  
NRC Docket Nos. 50-295 and 50-304

Proposed Technical Specification Changes  
and Explanation For Change

The following pages have been revised:

6	48	79
12	51	80
24	54	81
30	55	105
31	68	119
32	72	
35	74g	
36		

The following page has been deleted:

74h

An explanation of the proposed changes contained herein, including those of previous submittals, follows:

<u>Page No.</u>	<u>Reason For Change</u>
6	The definition of OPERABLE has been reworded to include items listed in the Standard Technical Specification (STS). This change was submitted on May 23, 1980 in a D. L. Peoples to H. R. Denton letter and is <u>not</u> reflected on the attached pages, primarily to avoid confusion. (Spec. 1.0 K).
6	The surveillance interval grace period has been revised. Another condition has been added to the surveillance interval requirement to limit the maximum period of three consecutive surveillances to 3.25 times the interval length. (Spec 1.0 N).
12	"Manual reactor trip" has been added to the list of "Other reactor trips." (Spec 1.C.8).
24	An explanation of manual reactor trip has been added to the bases.
30, 31, 32	Table 3.1-1 has been revised for the "Source Range Neutron Flux" under the column "Operator Action" to maintain cold shutdown if the condition exists.  The footnote "*", stating that certain setpoints will be determined at initial criticality, has been deleted. These setpoints ( $10^5$ counts/sec for Source Range Flux Interlock and $10^{-10}$ amps for P-6) have been determined. The numbering system for the remaining footnotes has been decreased by one and this change has been reflected throughout Table 3.1-1. Other previous footnotes already completed have been deleted.
35	Table 4.1-1 has been revised to change the reactor trip channel description #4 from "Power Range Neutron Flux Rate" to "Power Range Positive Flux Rate".
36	Note R on Table 4.1-1 has been revised to be consistent with Definition J. The statement "The time between surveillances shall not exceed 20 months" has been added.  The channel calibration intervals have been revised for the permissive from "Once Per Refueling Shutdown" to "Not Applicable". The channel functional test for P-6 has been changed from "monthly" to "prior to startup".

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- P-6 is set relative to the reading from the intermediate range neutron channel and thus should only be calibrated and tested at the same frequency as the intermediate range channel. There is no instrumentation associated with P-7 and a channel calibration is not meaningful. The instrumentation feeding P-8, 10 is required to be calibrated under Items 2 and 3 on page 35 of the Technical Specifications.
- 42 Part length rods have been physically removed from both units. This change which was included in the license amendment submittal of April 22, 1980 in a D. L. Peoples to H. R. Denton letter is not reflected on the attached pages, primarily to avoid confusion.
- 48 The derating of reactor power level has been increased from 2% to 3% for each percent of quadrant power tilt ratio beyond 1.0. (Spec 3/4.2.4).
- 51 A rod misalignment of "± 12 steps indicated" has replaced the previous misalignment of "24 steps actual" in order to be consistent with the W-STs. As indicated misalignment does not take into account instrument uncertainties. The maximum error would be 12 steps hence the previous misalignment of "24 steps actual." (Spec 3/4.1.3.1).
- 54, 55 Specification 3.2.3.D, "Inoperable Rod Position Indicator Channels" has been revised. Specification 3.2.3.D.1 now has an exception to allow multiple RPI to be inoperable during hot rod drop timing measurements. Specification 3.2.3.D.2 has been added requiring that the reactor be in at least Hot Shutdown and the reactor trip breakers left open if Specification 3.2.3.D.1 cannot be met. This added specification meets the NRC request that rod position be known in the event that the RPI's are inoperable. (Spec 3/4.1.3.3).
- 68, 72 The bases have been amended to explain the ± 12 step rod misalignment for page 51.
- 74g The steam generator eddy current testing will now be reported in a Special Report instead of an Annual Report. (Spec 3/4.3.4)
- 74h Deleted. Note pages 74g and 74h have been combined.



Page No.

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- 79-80 A maximum heatup and cooldown rate has been explicitly stated. (Spec 3.4.4.9.1)
- Also a previous oversight has been corrected in Section 3.3.2.C on page 80. The steam generator "must not" be pressurized above 200 psig if the temperature of the primary and secondary coolant is below 70°F. This change conforms to the W-STs.
- 81 A requirement has been added to include the total SI actuations to date when any ECCS equipment is actuated above 350°F. (Spec 3/4.5.2)
- 73,82,83 These pages were revised per License Amendment No. 54 for  
94,164, Zion Unit 1 and No. 51 for Zion Unit 2 on April 28, 1980.  
168,174 Those amendments added technical specifications for the  
and 328a overpressure mitigating system. (Spec 3/4.4.9.3)
- 105 and The material irradiation surveillance specimen removal  
119 requirements have been upgraded per the NRC request.  
(Spec. 4.4.9.1.2)
- iii,viii The NRC request to upgrade the auxiliary feedwater system  
ix,x,156 was submitted in a proposed license amendment on December  
159,159a 31, 1979 in a D. L. Peoples to D. G. Eisenhower letter. This  
161,161a submittal also included technical specifications regarding  
162,162a condensate storage tank. (Spec 3/4.7.1.2 and 3/4.7.1.3).  
and 163
- 222-242 Specification 3.11 (Radioactive Liquids) and Specification  
3.12 (Airborne Effluents) were revised and submitted as a  
proposed license amendment on February 16, 1979 as part of  
Appendix I.
- 244,244A License Amendments No. 56 for Unit 1 and No. 53 for Unit 2  
245,281 issued August 8, 1980 per S. A. Varga to D. L. Peoples  
282,284 letter revised the technical specifications in Sections  
285,286 3.17 and 4.17 as well as Specification 4.13.2. (Spec  
and 288 3/4.7.8 and 3/4.9.12)