



Commonwealth Edison
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June 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 Change to Facility
Operating License Nos. DPR-39
and DPR-48
NRC Docket Nos. 50-295 and 50-304

Reference (a): February 29, 1980, letter from H. R.
Denton to D. L. Peoples containing
Confirmatory Order

Dear Mr. Denton:

Pursuant to 10 CFR 50.90, Commonwealth Edison Company hereby requests a change to Facility Operating License Nos. DPR-39 and DPR-48. The purpose of this amendment is to modify Item B.6 in Appendix A of Reference (a). Specifically, Commonwealth Edison requests that the "Allowed Outage Time" specified in Item B.6 be modified to "As Is" for 4, 5, 6, or more diesel generators failures in the prior 100 tests. The basis for this change follows.

Item B.6 in Appendix A of Reference (a) states that diesel generator testing will be performed in accordance with Regulatory Guide 1.108 and with a corresponding change in the allowable outage time stipulated in the Limiting Conditions of Operation (not part of the Regulatory Guide). The change in allowable outage time for a diesel generator was decreased from the existing 7 days to 32, 8, or 0 hours if there were 4, 5, 6, or more failures, respectively, in the prior 100 tests.

During a conference call on April 10, 1980, between NRC Staff and Commonwealth Edison personnel, the basis and intent for the decrease in allowed outage time was discussed. Since Zion Station has five (5) diesel generators--two/unit and one swing diesel--the NRC Staff agreed to consider the above proposed modification to the Confirmatory Order if Commonwealth Edison could show that a unit can be brought to safe shutdown assuming:

- (1) total loss of offsite power;
- (2) one diesel generator out-of-service; and
- (3) active failure of a safe shutdown component.

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For Zion Station, the worst case active failure is that of a diesel generator, and the minimum requirement for a safe shutdown is one ESF bus energized from a diesel generator. In addition, the systems necessary for safe shutdown of a unit following a loss of offsite power are service water, component cooling, and auxiliary feedwater. It should be noted that since initial startup in June, 1973, Zion Station has never experienced a total loss of offsite power.

Section 6.7.1 of the Zion FSAR provides the design basis for the auxiliary feedwater system. It states that any one of the auxiliary feedwater pumps supplying two of four steam generators will provide sufficient feedwater to safely cool down the unit.

Section 14.1.12 of the Zion FSAR describes the loss of AC power to the station auxiliaries. It states that upon loss of power to the reactor coolant pumps, coolant flow necessary for core cooling and the removal of residual heat is maintained by natural circulation in the reactor coolant loops. The conclusion of this section states that for a loss of AC power no adverse conditions occur in the reactor core, the DNB ratio is maintained above 1.30, and no water relief occurs through the pressurizer relief valves.

Section 9.3 of the Zion FSAR describes the component cooling system (CC). With the reactor coolant pumps (RCPs) off and charging and letdown secured, the only essential loads on the CC system are the spent fuel pit heat exchangers and the RCP thermal barriers. One CC pump and heat exchanger are adequate for these components.

Section 9.6.3 of the Zion FSAR gives the system design for the service water system. It states that under emergency shutdown and accident conditions one pump is all that is required for each unit. It should be noted that service water can be crosstied to the other unit.

Each ESF bus at Zion Station has a service water, component cooling, and auxiliary feedwater pump on it with the exception of Bus 147, which does not have an auxiliary feedwater pump, and Bus 247, which does not have a component cooling pump on it. However, for these buses Commonwealth Edison takes credit for the turbine driven auxiliary feedwater pump as well as the ability to crosstie component cooling to the other unit.

Based on the information presented above, Commonwealth Edison has concluded that either Zion unit can be safely shutdown with only one ESF bus energized. Therefore, the allowed outage time specified in the Confirmatory Order should be modified to "As Is" for all cases.

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This proposed license amendment change has been reviewed by Commonwealth Edison On-Site and Off-Site Review with the conclusion that there are no unreviewed safety questions.

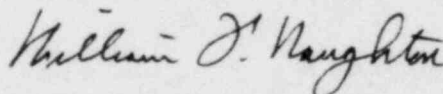
Pursuant to 10 CFR 170, Commonwealth Edison has determined that this proposed amendment is a combined Class III and Class I amendment. As such, Commonwealth Edison has enclosed a fee remittance in the amount of \$4,400.00 for this proposed amendment. The basis for this determination is that the proposed change concerns a single safety issue that does not involve a significant hazards consideration.

Commonwealth Edison requests that the NRC Staff expeditiously review and approve the change contained herein to avoid the undesirable and unnecessary cycling of the Zion units which can occur under the current allowed outage times of Reference (a).

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

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

Very truly yours,



William F. Naughton
Nuclear Licensing Administrator
Pressurized Water Reactors

SUBSCRIBED and SWORN to
before me this 4TH, day
of June, 1980
[Signature]
Notary Public