



October 4, 1996

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

Subject: Zion Station Units 1 and 2
Revision to Application for Amendment to Facility Technical Specifications
Re. Containment Leakage Testing per Option B to 10 CFR 50, App. J
Operating Licenses DPR-39 and DPR-48
NRC Docket Nos. 50-295 and 50-304

Reference: Letter from J. H. Mueller, Commonwealth Edison, to U.S. Nuclear
Regulatory Commission, dated September 20, 1996

This letter revises Commonwealth Edison's (ComEd's) previous application to amend the
Zion Unit 1 and 2 Technical Specifications to implement Option B to 10 CFR 50,
Appendix J.

Background

The referenced letter transmitted a revised application to amend, pursuant to 10 CFR 50.90,
Appendix A of the Zion Unit 1 and 2 Facility Operating License, DPR-39 and DPR-48. The
proposed amendment consisted of Technical Specifications changes needed to implement
Option B to 10 CFR 50 Appendix J at Zion Station. The proposed amendment included an
exception to the requirements of NEI 94-01, Revision 0, Section 9.2.3, that would have
permitted the minimum elapsed time between the first and last tests in a series of consecutive
satisfactory Type A tests to be 18 months, rather than the 24 months specified in the NEI
document. ComEd has determined that this exception is not needed for Zion Units 1 and 2,
and is therefore revising the amendment application accordingly.

Revised Amendment Application

Although only Attachments A, B, and E, are affected by the revision, the entire amendment
application is being re-submitted to preclude confusion. The changed portions of the text in
Attachments A, B, and E, are indicated by revision bars in the right margin. The revised
amendment application is comprised of the following attachments to this letter:

9610150202 961004
PDR ADOCK 05000295
PDR

ADD: NAR/ECGB 1/1
NAR/SCS B 1/1
RES/DE/SEP 1/1

AD01 1/1

Attachment A provides a description and safety analysis of the proposed changes to the Technical Specifications.

Attachment B provides an annotated copy and a clean copy of the affected pages of the Technical Specifications .

Attachment C provides an evaluation of Significant Hazards Considerations in accordance with 10 CFR 50.92.

Attachment D provides an evaluation of the need for an Environmental Assessment in accordance with 10 CFR 51.21 and 10 CFR 51.22.

Attachment E provides a description of the implementation plan for the Containment Leakage Rate Testing Program.

Attachment F provides the disposition of previously approved exemptions to 10 CFR 50 Appendix J Option A.

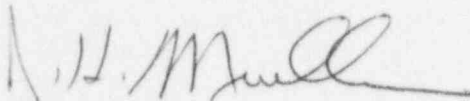
The evaluation of Significant Hazards Considerations submitted as Attachment C to the referenced letter (and resubmitted as Attachment C to this letter) remains valid. The removal of the exception to NEI 94-01, Rev. 0, does not alter ComEd's previous conclusion that the proposed amendment does not involve a significant increase in the probability or consequences of an accident previously evaluated, does not create the possibility of a new or different kind of accident from any accident previously evaluated, and does not involve a significant reduction in a margin of safety.

The proposed amendment revision 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 revised amendment application are true and correct. In some respects these statements are not based on my personal knowledge, but obtained 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.

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

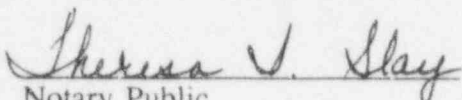
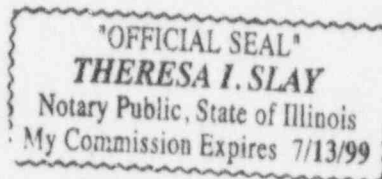
Please direct any questions you may have concerning this submittal to this office.

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 4th day of October, 1996.


Notary Public

Attachments

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

ATTACHMENT A

DESCRIPTION AND SAFETY ANALYSIS FOR PROPOSED CHANGES

Description of Proposed Change

Commonwealth Edison (ComEd) company proposes to amend Appendix A, Technical Specifications, of Facility Operating Licenses DPR-39 and DPR-48 for Zion Station Units 1 and 2 respectively, to implement Option B to 10 CFR 50 Appendix J. This option allows use of a performance based program for Type A, B, and C containment leakage tests.

Description and Bases of Current Requirements

The current Technical Specifications reference 10 CFR Part 50, Appendix J (as modified by approved exemptions) as specifying the frequency of Type A, B, and C containment leakage testing. Although not explicitly stated in the specifications, these references refer to Option A of Appendix J. The test frequency requirements of Option A are very prescriptive, requiring three Type A tests during a ten year service period, and, in general, Type B and C tests each refueling outage, not to exceed two years.

The purpose of containment leakage tests, as stated in Appendix J, is to assure that (1) leakage through the primary reactor containment, and systems and components penetrating containment, does not exceed allowable leakage rate values as specified in the technical specifications or associated bases, and (2) periodic surveillance of reactor containment penetrations and isolation valves is performed, so that proper maintenance and repairs are made during the service life of the containment, and systems and components penetrating the primary containment.

The stated basis for the current Technical Specifications containment leakage requirements is to provide a current assessment of potential leakage from containment during simulated accident conditions, thus assuring that public exposure would be well below 10 CFR 100 values in the event of a design basis accident.

Reason for Requesting an Amendment

ComEd is requesting an amendment to the Zion Units 1 and 2 Technical Specifications to allow implementation of Option B to 10 CFR 50 Appendix J for conducting Type A, B, and C containment leakage rate testing. Option B establishes requirements for performance based programs in which test intervals are based on system and component performance history. A performance based program is much more cost effective than the prescriptive Option A program currently required by the Unit 1 and 2 Technical Specifications, since it permits extending the interval between tests if the performance history shows that more frequent testing provides little or no additional assurance of safety.

ATTACHMENT A

An estimate of this cost effectiveness can be determined from the Final Rule for 10 CFR Part 50, published in the Federal Register on September 26, 1995. The Final Rule states that the cost associated with complying with current Appendix J requirements has been estimated to be \$165,000 for a complete battery of Type B / C tests, and \$1,890,000 for Type A tests. The Final Rule also states that over the average remaining lifetime of 20 years, the present value of all remaining leak testing is about \$7 million per reactor at a five percent discount rate. It was also estimated that approximately 75 percent of this cost could be averted with a performance based rule. Since the remaining lifetime for Units 1 and 2, without plant life extension, is approximately 17 years, the total potential savings for Zion Station realized by implementing Option B is approximately \$8.9 million.

The Proposed Rule published in the Federal Register on February 21, 1995 states that "relaxing the frequency of Type A, B, and C tests leads to an increase in overall reactor risk of approximately two percent. This increase is considered to be marginal to safety." Therefore, implementation of Option B at Zion Station will result in significant financial savings for Zion Station with only a marginal increase in risk.

Description and Bases of the Proposed Requirements

A general description of the proposed changes to the current Technical Specifications is provided below. The specific changes proposed are shown in annotated and clean copies of the affected pages provided as Attachment B to this LAR.

- Limiting Conditions for Operation (LCO's) 3.10.1 and 3.10.2, and the associated Surveillance Requirements 4.10.1 and 4.10.2 in Section 3.10/4.10, "Containment Structural Integrity," have been revised such that acceptance criteria and references to 10 CFR Part 50 Appendix J have been deleted and replaced with references to the Containment Leakage Rate Testing Program.
- A new specification (6.10) has been added to Section 6.0, "Administrative Controls," to establish the minimum requirements for a Containment Leakage Testing Program in accordance with Option B of 10 CFR Part 50, Appendix J.
- New Specification 6.10 requires that the program be in accordance with the guidelines contained in Regulatory Guide 1.163, which endorses NEI 94-01 (with certain exceptions) as providing methods acceptable to the NRC staff for complying with the provisions of Option B of 10 CFR Part 50, Appendix J. A description of the ComEd plan for implementing this program is provided as Attachment E to this LAR.

ATTACHMENT A

- The program required by new Specification 6.10 allows a limited duration exception to the NEI 94-01 requirements for Type B testing for one Unit 1 penetration, P-16. This exception will provide ComEd an opportunity to complete a modification that will permanently eliminate the need to test the penetration. A discussion of the basis for this exception is provided Attachment F to this LAR.
- New Specification 6.10 also documents the values for the peak calculated containment internal pressure for the design basis loss of coolant accident (P_a), the maximum allowable containment leakage rate (L_a) at P_a , and the leakage rate acceptance criteria for the containment and containment air locks, which were previously stipulated in SR 3.6.1.1 and SR 3.6.2.1 respectively.
- Finally, new Specification 6.10 states that the program must also be in accordance with previously approved exemptions. A description of these exemptions is provided for information in Attachment F to this LAR.

The bases for Option B to 10 CFR 50 Appendix J are documented in the Proposed Rule and the Final Rule issuing Option B to 10 CFR 50 Appendix J, as published in the Federal Register on February 21, 1995, and September 26, 1995, respectively. As documented in these publications, the implementation of a performance based program can provide licensees with substantial savings while incurring only marginal additional industry wide risk.

The bases for the specific changes proposed to the current Technical Specifications are documented in a letter from the NRC to the NEI dated November 2, 1995, which promulgated model Technical Specifications for implementing Option B to 10 CFR 50 Appendix J. The overall objective of the model specifications is to (1) replace references to 10 CFR 50 Appendix J in the LCO's and Surveillance Requirements with references to a licensee prepared performance based program, and (2) add a set of minimum program requirements to the administrative section of the Technical Specifications. This objective formed the bases for the changes to the Zion specifications.

Schedule Requirements

ComEd plans to utilize the provisions of Option B to extend Type A, B, and C testing frequencies during Z2R14. Currently, entry into Mode 4 at the close of Z2R14 is expected to occur in late October, 1996. Therefore, ComEd is requesting NRC approval of the proposed changes in support of entry into Mode 4.