Commonwealth Edison
1400 Opus Place
Downers Grove, Illinois 60515

March 7, 1994

William T. Russell, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Attention: Document Control Desk

Subject: Application for Amendment to Facility Operating Licenses:

Byron Station Units 1 and 2
(NPF-37/66; NRC Docket Nos. 50-454/455)

Braidwood Station Units 1 and 2
(NPF-72/77; NRC Docket Nos. 50-456/457)

"Integrated Containment Leakage Rate Test Requirements"

Dear Mr. Russell:

Pursuant to 10 CFR 50.90, Commonwealth Edison Company (CECo) proposes to amend Appendix A, Technical Specifications of Facility Operating Licenses NPF-37, NPF-66, NPF-72, and NPF-77. The subject amendment request proposes to revise Technical Specification Surveillance Requirement 4.6.1.2, "Containment Leakage".

A detailed description of the proposed changes is presented in Attachment 1. The revised Technical Specification pages are contained in Attachment 2.

The proposed changes have been reviewed and approved by the On-site and Off-site Review Committees in accordance with CECo procedures. CECo has reviewed this proposed amendment in accordance with 10 CFR 50.92(c) and has determined that no significant hazards consideration exists as documented in Attachment 3. An Environmental Assessment has also been completed and is contained in Attachment 4.

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CECo is notifying the State of Illinois of our application for these amendments by transmitting a copy of this letter and the associated attachments to the designated State Official.

Byron Unit 1 is scheduled for a refueling outage beginning September 10, 1994. Preparation for an integrated containment leak rate test, should one be required, would have to start no later than June 13, 1994, therefore, CECo respectfully requests that the Staff review and approve the amendment by June 13, 1994.

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

Please address any comments or questions regarding this matter to this office.

OFFICIAL SEAL
MARY JO YACK
NOTARY PUBLIC, STATE OF ILLINOIS
MY COMMISSION EXPIRES 11/29/97

Mary Jo Yack 3/7/94

Respectfully,

Joseph A. Bauer

Joseph A. Bauer
Nuclear Licensing Administrator

JAB/gp

Attachments

cc: G. F. Dick, Byron Project Manager - NRR
R. R. Assa, Braidwood Project Manager - NRR
H. Peterson, SRI - Byron
S. G. Dupont, SRI - Braidwood
B. Clayton, Branch Chief - Region III
Office of Nuclear Facility Safety - IDNS

PROPOSED LICENSE AMENDMENT

"INTEGRATED CONTAINMENT LEAKAGE RATE TEST REQUIREMENTS"

INDEX

ATTACHMENT 1

DETAILED DESCRIPTION OF PROPOSED CHANGE

Description of Current Requirements:

Technical Specification 3.6.1.2 provides the containment leakage rate requirements and surveillance requirements for inspection, inspection frequency, and acceptance criteria. Surveillance Requirement 4.6.1.2 references the criteria specified in Appendix J of 10 CFR 50 using the methods and provisions of ANSI N45.4-1972, ("Leakage Rate Testing of Containment Structures for Nuclear Reactors"). Surveillance Requirement 4.6.1.2.a specifies that three Type A tests, overall integrated containment leakage rate (ILRT), are conducted at 40 ± 10 month time intervals. Also, 4.6.1.2.a specifies that the third Type A test is to be conducted during the 10-year plant Inservice Inspection.

Bases for the Current Requirements:

Specification 4.6.1.2

Surveillance Requirement 4.6.1.2 specifies that containment leakage testing shall be done in conformance with the requirements of 10 CFR 50 Appendix J and using the methods and provisions of ANSI 45.4-1972. Appendix J provides testing requirements for pre-operational and periodic verification by tests of the leak-tight integrity of the primary reactor containment, and systems and components which penetrate containment of water-cooled power reactors, and establish acceptance criteria for such tests.

Specification 4.6.1.2.a

Appendix J of 10 CFR 50 sets forth requirements for containment leakage testing and ensures that a set of three Type A tests be performed at approximately equal intervals during each 10 year service period. The intent of the established time interval of 40 ± 10 months for the performance of the Type A tests in Surveillance Requirement 4.6.1.2.a was to meet this requirement of conducting three (3) approximately equally spaced Type A tests over the 10 year (120 month) service period. The time interval of 40 ± 10 months was chosen to allow some scheduling flexibility while still ensuring relatively even spacing between the three tests.

Description of the Need for Amending the Technical Specifications:

Specification 4.6.1.2

The removal of the reference to ANSI N45.4-1972 is an editorial change only. Appendix J of 10 CFR 50, Section III.A.3, "Test Methods," references ANSI N45.4-1972. Thus, removal of this reference from Surveillance Requirement 4.6.1.2 will not change adherence to the ANSI document, as it is required by 10 CFR 50.

Specification 4.6.1.2.a

Braidwood Units 1 and 2 currently meet the required time intervals established for Type A testing in Surveillance Requirement 4.6.1.2.a. This change is requested for Braidwood to ensure consistency with Byron Station and also to preclude the need for future Technical Specification changes should Appendix J of 10 CFR 50 be revised.

Byron Units 1 and 2, in order to meet the 40 ± 10 month Type A test schedule as described in Surveillance Requirement 4.6.1.2.a, will be required to perform back-to-back Type A overall containment integrated leak rate tests. The Type A tests would be required to be performed during refueling outage #6 and again during refueling outage #7 for each unit (see Attachment 5 for outage schedules and performance of Type A tests).

For Byron Unit 1, this schedule would require a third Type A test to be performed on or before 11/15/95, which corresponds to a test during refueling outage B1R06, to prevent exceeding the 50 month maximum time interval from the last Type A test conducted during B1R04, completed 9/15/91. Another Type A test would be required during refueling outage B1R07, scheduled for March of 1996, to satisfy the 10-year ISI requirement. Scheduling a fourth Type A test during refueling outage #7 to meet the ISI requirement would also be less than the 30 month minimum time limit for the surveillance intervals. This Technical Specification revision allows the third Type A test to be performed during the seventh refueling outage to meet the requirements of performing a third Type A test during the shutdown for the 10-year plant Inservice Inspection and eliminates the need to perform Type A tests during back-to-back refueling outages.

For Byron Unit 2, the last Type A test was completed during B2R04 on 9/9/93. The same concern of performing Type A tests during back to back refueling outages would apply if the time intervals specified in Appendix J and Surveillance 4.6.1.2.a were to be met.

For Byron Units 1 and 2, the current 18 month fuel cycle makes maintaining a 40 ± 10 month time interval for Type A testing difficult without asking for an extension on the third test to allow performance at fifty-four (54) months to coincide with the seventh refueling outage which is the 10-year Inservice Inspection outage. The removal of the required time interval requirement would allow the third Type A test to be performed during the seventh refueling outages for Byron Units 1 and 2 for the 10-year service period and coincide with the 10-year plant Inservice Inspection. The third Type A test would be performed no later than April 1, 1996 for Byron Unit 1 and April 1, 1998 for Byron Unit 2 corresponding the performance of the third Type A test at a time interval of 54 months.

Description of the Proposed Amendment:

Specification 4.6.1.2

Commonwealth Edison (CECo) proposes an editorial change to the first sentence of Surveillance Requirement 4.6.1.2 after "10 CFR 50" by deleting the words "using the methods and provisions of ANSI N45.4-1972".

Specification 4.6.1.2.a

CECo also proposes a change to the Byron and Braidwood Technical Specifications by deleting the word "Three" at the beginning of Specification 4.6.1.2.a and deleting the time interval schedule of 40 ± 10 months. Type A testing will conform to intervals specified in Appendix J of 10 CFR 50 for the Type A tests, which currently requires three Type A tests at approximately equal intervals with the third test occurring during the 10 year Inservice Inspection. The proposed change will adopt the guidance and wording provided in NUREG 1431, "Standard Technical Specifications for Westinghouse Plants."

Impact of Proposed Change

Specification 4.6.1.2

The removal of the reference to ANSI N45.4-1972 is an editorial change request. All Type A tests are required to be conducted in accordance with the provisions of the ANSI document as referenced in Section III.A.3, "Test Methods", of Appendix J of 10 CFR 50. The removal of the reference does not change the testing method of any of the associated components and penetrations, nor does it affect any assumption or condition in any of the accident analyses.

Specification 4.6.1.2.a

The proposed change will adopt the guidance and wording provided in NUREG 1431, "Standard Technical Specifications for Westinghouse Plants." Future testing intervals will be in accordance with the criteria specified in Appendix J of 10 CFR 50 for the Type A tests.

Braidwood will not be immediately impacted the proposed deletion of the 40 ± 10 month periodicity. Braidwood is currently able to meet Technical Specification required intervals. This change, for Braidwood, will ensure consistency with Byron and minimize any future schedule conflicts which might occur due to a specified testing interval.

Byron will be allowed, via this proposed amendment, to extend its third Type A test to 54 months. This extension is based on results of the previous Type A leak tests which have shown that the overall leakage from Byron Unit 1 and Unit 2 containment buildings were at low levels. The test results for the latest Unit 1 Type A test was measured at 0.0175 weight percent per day. The associated 95% upper confidence level (UCL) was calculated to be 0.0184 weight percent per day. The test results for the latest Unit 2 Type A test was measured at 0.0376 weight percent per day. The associated 95% UCL was calculated to be 0.0666 weight percent per day. The Unit 2 95% UCL is relatively high with respect to the measured leakage rate due to the Bechtel Nuclear Topical Report (BN-TOP) mass-point process used. The overall containment leakage rate has consistently remained well below acceptable levels for Byron Station Type A tests of 0.075 weight percent per day. Elimination of the specified time intervals for the Type A testing would allow extending the time interval of the third Type A test by four (4) months beyond the existing maximum 50 month interval. The extension would allow

performance of the Type A test to coincide with the seventh refueling outage, the 10 year Inservice Inspection, and meet the requirements of Appendix J of 10 CFR 50.

For Byron, the present test performance margins, coupled with the present Type B & C test program for monitoring and repairing individual leakage components provide justification for the proposed change which extends the third Type A test to 54 months. Type B and C tests have been completed satisfactorily at the required frequency and are scheduled for completion during refueling outage number seven. Demonstrated operability of the associated components and penetrations provides added assurance that the overall containment integrated leakage rates remain satisfactory. No significant leakage trends have been identified which threaten the overall containment leakage specifications. There is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite due to the allowance of the performance of the Type A test to coincide with the seventh refueling outage and the 10 year Inservice Inspection.

The proposed Technical Specifications change does not involve any change to the configuration or method of operation of any plant equipment that is used to mitigate the consequences of an accident, nor does it affect any assumption or condition in any of the accident analyses.

Schedule Requirements:

Byron Unit 1 is scheduled for a refueling outage beginning September 10, 1994. Preparation for an integrated containment leak rate test, should one be required, would have to start no later than June 13, 1994, therefore, CECo respectfully requests that the Staff review and approve the amendment by June 13, 1994.