



Commonwealth Edison
1400 Opus Place
Downers Grove, Illinois 60515

March 24, 1994

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

Attention: Document Control Desk

Subject: Supplement to 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"

Reference: J. Bauer Letter to W. Russell dated March 7, 1994, transmitting request for Technical Specification Amendment for Byron and Braidwood Station pertaining to Integrated Containment Leakage Rate Test Requirements

Dear Mr. Russell:

Attached is Commonwealth Edison Company's (CECo) supplement to the request for Technical Specification Amendment which was transmitted with the reference letter. The attachment proposes to revise Technical Specification surveillance requirement 4.6.1.2, "Containment Leakage" and supersede the amendment request dated March 7, 1994.

In support of this request, the following information is attached:

Attachment A: Detailed Description Of The Proposed Changes
Attachment B: Revised Technical Specification Pages
Attachment C: Evaluation of Significant Hazards Considerations
Attachment D: Environmental Assessment

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The proposed changes have been reviewed and approved by the On-site and Off-site Review Committees in accordance with CECo procedures.

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.

CECo requests that the Staff review and approve the amendment by June 13, 1994. Approval by this time is necessary because if an intergated leak rate test is necessary, preparation needs to begin by this date. CECo appreciates your efforts in helping us meet this date.

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.



Sincerely,

Denise M. Saccomando

Denise M. Saccomando
Nuclear Licensing Administrator

Mary Jo Yack 3/24/94

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

ATTACHMENT A

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").

Specification 4.6.1.2.a

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 (ISI).

Specification 4.6.1.2.b

For Surveillance Requirement 4.6.1.2.b, if two consecutive Type A tests fail to meet the maximum allowable leakage rate, a Type A test shall be performed at least every 18 months until two consecutive Type A tests are acceptable, at which time the above test schedule may be resumed.

Bases for the Current Requirements:

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.

Specification 4.6.1.2.b

If two consecutive Type A tests fail to meet the maximum allowable leakage rate, a Type A test shall be performed at least every 18 months to confirm the leakage problem is corrected. After two consecutive tests are conducted satisfactorily, the test schedule identified in part "a" would be resumed.

Description of the Need for Amending the Technical Specifications:

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 E 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 November 15, 1995, 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 September 15, 1991. 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 September 9, 1993. 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.a

Commonwealth Edison (CECo) proposes to modify the Byron and Braidwood Station Technical Specifications; Surveillance Requirement 4.6.1.2.a by replacing the current wording with: "Type A (Overall Integrated Containment Leakage Rate) testing shall be conducted in accordance with the requirements specified in Appendix J to 10 CFR 50, as modified by approved exemptions."

This change will eliminate the specified number of tests currently in Surveillance Requirement 4.6.1.2.a and the 40 ± 10 month schedule currently required. This change is administrative in nature in that it will adopt the guidance and wording provided in NUREG 1431 "Standard Technical Specification for Westinghouse Plants."

Specification 4.6.1.2.b

Surveillance Requirement 4.6.1.2.b will be modified to delete the reference to the testing schedule contained in the previous version of 4.6.1.2.a.

Impact of Proposed Change

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 by 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.

Specification 4.6.1.2.b

This editorial change deletes reference to a specified test schedule contained in the previous version of 4.6.1.2.a. However, testing shall continue to be performed in accordance with the criteria specified in Appendix J of 10 CFR Part 50 using the methods and provisions of ANSI N45.4-1972.

Schedule Requirements:

Commonwealth Edison Company (CECo) would like the containment leakage amendment prior to Byron Unit 1's next refueling outage, scheduled to begin in September 1994. CECo requests that the change be approved by June 13, 1994, so there is sufficient time to plan for the testing if it would be required.