

ATTACHMENT B

PROPOSED CHANGES TO APPENDIX A
TECHNICAL SPECIFICATIONS FOR FACILITY
OPERATING LICENSES NPF-37, NPF-66, NPF-72, and NPF-77

Revised Pages

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CONTAINMENT SYSTEMS

CONTAINMENT LEAKAGE

LIMITING CONDITION FOR OPERATION

3.6.1.2 Containment leakage rates shall be limited to:

- a. An overall integrated leakage rate of:
 - 1) Less than or equal to L_a , 0.10% by weight of the containment air per 24 hours at P_a , 44.4 psig, or
 - 2) Less than or equal to L_t , 0.07% by weight of the containment air per 24 hours for Unit 1 (0.07% by weight of the containment air per 24 hours for Unit 2) at P_t , 22.2 psig.
- b. A combined leakage rate of less than $0.60 L_a$ for all penetrations and valves subject to Type B and C tests, when pressurized to P_a .

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

With either the measured overall integrated containment leakage rate exceeding $0.75 L_a$ or $0.75 L_t$, as applicable, or the measured combined leakage rate for all penetrations and valves subject to Types B and C tests exceeding $0.60 L_a$, restore the overall integrated leakage rate to less than $0.75 L_a$ or less than $0.75 L_t$, as applicable, and the combined leakage rate for all penetrations subject to Type B and C tests to less than $0.60 L_a$ prior to increasing the Reactor Coolant System temperature above 200°F.

SURVEILLANCE REQUIREMENTS

4.6.1.2 The containment leakage rates shall be demonstrated at the following test schedule and shall be determined in conformance with the criteria specified in Appendix J of 10 CFR Part 50 using the methods and provisions of ANSI N45.4-1972:

Insert A

- ~~a. Three Type A tests (Overall Integrated Containment Leakage Rate) shall be conducted at 40 ± 10 month intervals during shutdown at a pressure not less than P_a , 44.4 psig, or P_t , 22.2 psig, during each 10-year service period. The third test of each set shall be conducted during the shutdown for the 10-year plant inservice inspection;~~

Insert A

- a. 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;

CONTAINMENT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- b. If any periodic Type A test fails to meet either $0.75 L_a$ or $0.75 L_t$, the test schedule for subsequent Type A tests shall be reviewed and approved by the Commission. If two consecutive Type A tests fail to meet $0.75 L_a$, a Type A test shall be performed at least every 18 months until two consecutive Type A tests meet $0.75 L_a$ / ~~at which time the above test schedule may be resumed;~~
- c. The accuracy of each Type A test shall be verified by a supplemental test which:
- 1) Confirms the accuracy of the test by verifying that the supplemental test result, L_s , minus the sum of the Type A and the superimposed leak, L_o , is equal to or less than $0.25 L_a$ or $0.25 L_t$;
 - 2) Has a duration sufficient to establish accurately the change in leakage rate between the Type A test and the supplemental test; and
 - 3) Requires that the rate at which gas is injected into the containment or bled from the containment during the supplemental test is between $0.75 L_a$ and $1.25 L_a$.
- d. Type B and C tests shall be conducted with gas at a pressure not less than P_a , 44.4 psig, at intervals no greater than 24 months except for tests involving:
- 1) Air locks, and
 - 2) Purge supply and exhaust isolation valves with resilient material seals.
- e. Air locks shall be tested and demonstrated OPERABLE by the requirements of Specification 4.6.1.3;
- f. Purge supply and exhaust isolation valves with resilient material seals shall be tested and demonstrated OPERABLE by the requirements of Specification 4.6.1.7.3 or 4.6.1.7.4, as applicable; and
- g. The provisions of Specification 4.0.2 are not applicable.

CONTAINMENT SYSTEMS

CONTAINMENT LEAKAGE

LIMITING CONDITION FOR OPERATION

3.6.1.2 Containment leakage rates shall be limited to:

- a. An overall integrated leakage rate of:
 - 1) Less than or equal to L_a , 0.10% by weight of the containment air per 24 hours at P_a , 44.4 psig, or
 - 2) Less than or equal to L_t , 0.07% by weight of the containment air per 24 hours for Unit 1 (0.07% by weight of the containment air per 24 hours for Unit 2) at P_t , 22.2 psig.
- b. A combined leakage rate of less than $0.60 L_a$ for all penetrations and valves subject to Type B and C tests, when pressurized to P_a .

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

With either the measured overall integrated containment leakage rate exceeding $0.75 L_a$ or $0.75 L_t$, as applicable, or the measured combined leakage rate for all penetrations and valves subject to Types B and C tests exceeding $0.60 L_a$, restore the overall integrated leakage rate to less than $0.75 L_a$ or less than $0.75 L_t$, as applicable, and the combined leakage rate for all penetrations subject to Type B and C tests to less than $0.60 L_a$ prior to increasing the Reactor Coolant System temperature above 200°F.

SURVEILLANCE REQUIREMENTS

4.6.1.2 The containment leakage rates shall be demonstrated at the following test schedule and shall be determined in conformance with the criteria specified in Appendix J of 10 CFR Part 50 using the methods and provisions of ANSI N45.4-1972:

- Insert A*
- a. ~~Three Type A tests (Overall Integrated Containment Leakage Rate) shall be conducted at 40 ± 10 month intervals during shutdown at a pressure not less than P_a , 44.4 psig, or P_t , 22.2 psig, during each 10-year service period. The third test of each set shall be conducted during the shutdown for the 10-year plant inservice inspection;~~

Insert A

- a. 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;

CONTAINMENT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- b. If any periodic Type A test fails to meet either $0.75 L_a$ or $0.75 L_t$, the test schedule for subsequent Type A tests shall be reviewed and approved by the Commission. If two consecutive Type A tests fail to meet either $0.75 L_a$ or $0.75 L_t$, a Type A test shall be performed at least every 18 months until two consecutive Type A tests meet either $0.75 L_a$ or $0.75 L_t$ at which time the above test schedule may be resumed;
- c. The accuracy of each Type A test shall be verified by a supplemental test which:
- 1) Confirms the accuracy of the test by verifying that the supplemental test result, L_c , is in accordance with the appropriate following equation:
$$\left| L_c - (L_{am} + L_o) \right| \leq 0.25 L_a \quad \text{or} \quad \left| L_c - (L_{tm} + L_o) \right| \leq 0.25 L_t$$
where L_{am} or L_{tm} is the measured Type A test leakage and L_o is the superimposed leak;
 - 2) Has a duration sufficient to establish accurately the change in leakage rate between the Type A test and the supplemental test; and
 - 3) Requires that the rate at which gas is injected into the containment or bled from the containment during the supplemental test is between $0.75 L_a$ and $1.25 L_a$, or $0.75 L_t$ and $1.25 L_t$.
- d. Type B and C tests shall be conducted with gas at a pressure not less than P_a , 44.4 psig, at intervals no greater than 24 months except for tests involving:
- 1) Air locks, and
 - 2) Purge supply and exhaust isolation valves with resilient material seals.
- e. Air locks shall be tested and demonstrated OPERABLE by the requirements of Specification 4.6.1.3;
- f. Purge supply and exhaust isolation valves with resilient material seals shall be tested and demonstrated OPERABLE by the requirements of Specification 4.6.1.7.3 or 4.6.1.7.4, as applicable; and
- g. The provisions of Specification 4.0.2 are not applicable.

ATTACHMENT C

EVALUATION OF SIGNIFICANT HAZARDS CONSIDERATION

Commonwealth Edison has evaluated the proposed amendment and determined that it involves no significant hazards consideration. According to 10 CFR 50.92(c), a proposed amendment to an operating license involves no significant hazards if operation of the facility in accordance with the proposed amendment would not:

- (1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or
- (2) Create the possibility of a new or different kind of accident from any accident previously evaluated; or
- (3) Involve a significant reduction in a margin of safety.

The proposed amendment would modify the Byron and Braidwood Station Technical Specification Surveillance Requirement 4.6.1.2.a by removing the schedule requirement for Type A (overall integrated containment leakage rate) testing to be performed specifically at 40 ± 10 month intervals. The schedule for Type A testing will continue to conform to the requirements specified in Appendix J of 10 CFR 50, as modified by approved exemptions, using the provisions of ANSI N45.4-1972.

- A. The proposed changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.**

Specification 4.6.1.2.a

The proposed change will allow flexibility in the scheduling for Type A tests in the 10-year service period while still meeting the requirements in 10 CFR 50 Appendix J. Additional flexibility is needed for plants using an 18-month fuel cycle to allow refueling outages and 10-year inservice testing intervals to coincide. For performance of the third Type A test at Byron, the change would allow an extension of four (4) months beyond the current maximum 50-month surveillance interval. The third test would be completed at the fifty-four (54) month interval for Byron Units 1 and 2.

For Braidwood Units 1 and 2, an extension on the surveillance time interval will not be necessary to satisfy the requirements of Appendix J. The Braidwood Units have scheduled the third Type A test to be conducted with the 10-year Inservice Inspection.

The results of the previous Type A leak tests show the overall leakage from the Byron containment buildings at very low levels. The extension of the Type A test by four months would not cause the consequences of a previously evaluated accident to increase. By continuing to conform to the requirements of 10 CFR 50 Appendix J, the test frequency, methodology, and acceptance criteria for containment leakage remains the same. Therefore, there is no significant increase in the probability or the consequences of an accident previously evaluated.

Specification 4.6.1.2.b

An editorial change was required to delete reference to "the above test schedule" since the schedule requirement for Type A (overall integrated containment leakage rate) testing to be performed specifically at 40 ± 10 month intervals will be removed. The editorial change will not increase the probability or consequences of any accident previously evaluated. Testing will continue to be performed in accordance with ANSI N45.4-1972 as it is referenced in Appendix J of 10 CFR 50.

- B. The proposed changes do not create the possibility of a new or different type of accident from any accident previously evaluated.**

Specification 4.6.1.2.a

The proposed changes do not affect the design or operation of any system, structure or component in the plant. There are no changes to parameters governing plant operation and no new or different type of equipment will be installed. No new accident scenarios are created by the proposed change because the test frequency continues to meet the requirements of Appendix J of 10 CFR 50. There is no affect on containment structure, the penetrations, or the facility. The proposed change to the test schedule only provides flexibility in meeting the same requirement for three tests in a 10-year period. The testing method and bases have not changed. Therefore, operation of the units with this more flexible test schedule will not result in an accident previously not

analyzed in the Updated Final Safety Analysis Report (UFSAR). The proposed changes do not impact the design bases of the containment and do not modify the response of the containment during a design basis accident. Therefore, the changes do not create the possibility of a new or different type of accident from any accident previously evaluated.

Specification 4.6.1.2.b

The editorial change to delete reference to "the above test schedule" will not affect the design or operation of any system, structure or component in the plant. There are no changes to parameters governing plant operation and no new or different type of equipment will be installed. No new accident scenarios are created by the proposed change because the test performance will continue to meet the requirements of Appendix J of 10 CFR 50, as modified by approved exemptions, using the methods and provisions of ANSI N45.4-1972.

- C. The proposed changes do not involve a significant reduction in a margin of safety.**

Specification 4.6.1.2.a

The proposed changes do not affect the margin of safety for any Technical Specifications. The initial conditions and methodologies used in the accident analyses remain unchanged, therefore, the results of the accident analyses are not impacted. The proposed change to the schedule allows for additional flexibility in meeting the requirement for three tests in a 10-year period. Elimination of the specified time interval for Type A testing would allow Byron Unit 1 and 2 to extend the surveillance requirement of the third Type A test by four (4) months. This would exceed the existing maximum 50 month interval currently specified in Technical Specifications. The extension will allow performance of the Type A test to coincide with the seventh refueling outage, 10 year Inservice Inspection, and continue to meet the requirements of Appendix J of 10 CFR 50. These proposed changes do not affect or change any limiting conditions for operation (LCO), or any other surveillance requirements in the Technical Specifications.

The results of the previous Type A leak tests have shown that the overall leakage rates from the Byron containment buildings were at low levels. The latest test results for Unit 1 and 2 were 0.0175 weight percent per day and 0.0376 weight percent per day, respectively. The overall containment leakage rates have consistently remained well below the acceptance criteria for Byron Station Type A tests of 0.075 weight percent per day. The testing method, acceptance criteria, and bases for the surveillance requirement will not be changed by the proposed amendment.

The present test performance margins, coupled with the Type B & C test program for monitoring and repairing individual leakage components provides justification for the proposed change. The Type B & C tests provide 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.

In summary, Commonwealth Edison concludes that this change does not involve a significant reduction in a margin of safety because the containment integrity will be maintained. Testing in accordance with Appendix J requirements ensures confidence in containment integrity. The proposed Technical Specifications amendment will continue to require testing that is consistent with Appendix J requirements. Additionally, results from previous tests have shown acceptable low overall containment leakage rates. Extension of Type A testing for four months would not involve a significant reduction in a margin of safety.

Specification 4.6.1.2.b

The editorial change to delete reference to "the above test schedule" will not decrease the margin of safety. Testing will continue to conform to the requirements of Appendix J of 10 CFR 50, as modified by approved exemptions, using the methods and provisions of ANSI N45.4-1972. The initial conditions and methodologies used in the accident analyses remain unchanged. Therefore, the results of the accident analyses are not impacted.

SUMMARY

Therefore, based on the above evaluation, Commonwealth Edison has concluded that these changes do not involve any significant hazards considerations.

ATTACHMENT D

ENVIRONMENTAL ASSESSMENT

Commonwealth Edison has evaluated the proposed amendment against the criteria for and identification of licensing and regulatory actions requiring environmental assessment in accordance with 10 CFR 51.21. It has been determined that the proposed change meets the criteria for a categorical exclusion as provided for under 10 CFR 51.22(c)(9). This determination is based on; the fact that this change is being proposed as an amendment to a license issued pursuant to 10 CFR 50, it involves changes to a surveillance requirement and the amendment meets the following specific criteria:

- (i) the amendment involves no significant hazards consideration.

As demonstrated in Attachment C, this proposed amendment does not involve any significant hazards considerations.

- (ii) there is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite.

As documented in Attachment A there will be no change in types or increases in the amounts of any effluents released offsite.

- (iii) there is no significant increase in individual or cumulative occupational radiation exposure.

This proposed change will not result in changes in the operation or configuration of the facility. There will be no change in the level of controls or methodology used for processing of radioactive effluents or handling of solid radioactive waste nor will the proposal result in any change in the normal radiation levels within the plant. Therefore, there will be no increase in individual or cumulative occupational radiation exposure resulting from this change.

ATTACHMENT E

BYRON'S PERIODIC TYPE A TEST SCHEDULE

ATTACHMENT E
BYRON'S PERIODIC TYPE A TEST SCHEDULE

Byron Periodic Type A Tests

