

ATTACHMENT 2

PROPOSED TECHNICAL SPECIFICATION CHANGE

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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 , 0.30% by weight of the containment air per 24 hours at P_a , 14.8 psig, or
 - 2) Less than or equal to L_t , 0.14% by weight of the containment air per 24 hours at a reduced pressure of P_t , 7.4 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 , and
- c. A combined bypass leakage rate of less than $0.07 L_a^*$ for all penetrations identified as secondary containment bypass leakage paths when pressurized to P_a .

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

ACTION:

With (a) the measured overall integrated containment leakage rate exceeding $0.75 L_a$ or $0.75 L_t$, as applicable, or (b) the measured combined leakage rate for all penetrations and valves subject to Types B and C tests exceeding $0.60 L_a$, or (c) the combined bypass leakage rate exceeding $0.07 L_a^*$, restore the overall integrated leakage rate to less than $0.75 L_a$ or less than or equal to $0.75 L_t$, as applicable, and the combined leakage rate for all penetrations and valves subject to Type B and C tests to less than $0.60 L_a$, and the combined bypass leakage rate to less than $0.07 L_a^*$ 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 50 using the methods and provisions of ANSI N45.4-1972 or the mass-plot method:

* For Unit 1 Cycle 9 only the combined bypass leakage rate shall be less than $0.104 L_a$.

CONTAINMENT SYSTEMS

NO CHANGES THIS SIDE
FOR INFORMATION ONLY

SURVEILLANCE REQUIREMENTS (Continued)

- a. Three Type A tests (Overall Integrated Containment Leakage Rate) shall be conducted at 40 ± 10 month intervals during shutdown at either P_a , 14.8 psig, or at P_t , 7.4 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;*
- 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 Type A test by verifying that the difference between supplemental and Type A test data is within $0.25 L_a$ 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 the quantity of gas injected into the containment or bled from the containment during the supplemental test to be equivalent to at least 25% of the total measured leakage at P_a , 14.8 psig, or P_t , 7.4 psig.
- d. Type B and C tests shall be conducted with gas at P_a , 14.8 psig, at intervals no greater than 24 months except for tests involving:
 - 1) Air locks,
 - 2) Dual-ply bellows assemblies on containment penetrations between the containment building and the annulus, and
 - 3) Purge supply and exhaust isolation valves with resilient material seals.
 - 4) Type C tests performed on containment penetrations M372, M373 without draining the glycol-water mixture from the seats of their diaphragm valves (NF-228A, NF-233B, and NF-234A), if meeting a zero indicated leakage rate (not including instrument error) for the diaphragm valves. These tests may be used in lieu of tests which are otherwise required by Section III.C.2(a) of 10 CFR 50, Appendix J to use air or nitrogen as the test

*They Type A test on Unit 1 which is scheduled for the 10-year ISI outage (EOC 7, 1991) will be performed instead during the EOC 6 outage (1990). The 40 ± 10 month interval will be maintained. This constitutes an exemption to 10 CFR 50, Appendix J, Paragraph III.D.1.(a).

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SURVEILLANCE REQUIREMENTS (Continued)

medium. The above required test pressure (Pa) and test interval are not changed by this exception.

- e. Purge supply and exhaust isolation valves with resilient material seals shall be tested and demonstrated OPERABLE by the requirements of Specification 4.6.1.9.3 or 4.6.1.9.4, as applicable;
- f. The combined bypass leakage rate shall be determined to be less than $0.07 L_a^*$ by applicable Type B and C tests at least once per 24 months except^a for penetrations which are not individually testable; penetrations not individually testable shall be determined to have no detectable leakage when tested with soap bubbles while the containment is pressurized to P_a , 14.8 psig, or P_t , 7.4 psig, during each Type A test;
- g. Air locks shall be tested and demonstrated OPERABLE per Specification 4.6.1.3;
- h. The space between each dual-ply bellows assembly on containment penetrations between the containment building and the annulus shall be vented to the annulus during Type A tests. Following completion of each Type A test, the space between each dual-ply bellows assembly shall be subjected to a low pressure test at 3-5 psig to verify no detectable leakage^{**} or the dual-ply bellows assembly shall be subjected to a leak test with the pressure on the containment side of the dual-ply bellows assembly at P_a , 14.8 psig, or P_t , 7.4 psig, to verify the leakage to be within the limits of Specification 4.6.1.2f.;^{***}
- i. All test leakage rates shall be calculated using observed data converted to absolute values. Error analyses shall be performed to select a balanced Integrated Leakage Measurement System; and
- j. The provisions of Specification 4.0.2 are not applicable.

* FOR UNIT 1 CYCLE 9 ONLY, THE COMBINED BYPASS LEAKAGE RATE SHALL BE LESS THAN $0.104 L_a$.

** FOR UNIT 1 CYCLE 9 ONLY, BELLOWS 3 AND 4 OF PENETRATION M441 SHALL BE TESTED ONCE PER 31 DAYS WITH THE UNIT IN MODES 1-3 TO VERIFY THE LEAKAGE TO BE WITHIN THE LIMITS OF SPECIFICATION 4.6.1.2.f.

*** FOR UNIT 1 CYCLE 9 ONLY, PENETRATION M441 SHALL BE TESTED PRIOR TO ENTERING MODE 4, FOLLOWING UNIT SHUT DOWN.

ATTACHMENT 3

No Significant Hazards Analysis

10 CFR 50.91 requires that the following analysis be provided concerning whether the proposed amendment request involves a significant hazards consideration as defined in 10 CFR 50.92. Standards for determination that an amendment does not involve a significant hazards consideration are 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 previously evaluated; or, 3) Involve a significant reduction in a margin of safety.

Safety Basis For The Request

Recent testing of the bellows assembly M-441 (1D main steam line containment penetration) identified increased secondary bypass leakage through the penetration. This leakage in addition to other small leaks, results in a total containment bypass leakage approaching the limit of .07 La as stated in 3.6.1.2 c of the McGuire Technical Specifications. The .07 La leakage limit corresponds to a leakage of 9,427 sccm for McGuire.

The Offsite and Control Room Dose calculations were reviewed to determine the dose significance of increased bypass leakage. These calculations showed that McGuire was currently well within the 10CFR100 limits for all analyzed accidents which have containment bypass leakage as an input. The dose most sensitive to a change in bypass leakage was the dose to control room personnel in the event of a large break LOCA with substantial fuel melting. This accident also considers a passive failure of the ECCS system which releases 50 gpm of ECCS water for 30 minutes prior to isolation. General Design Criteria 19 (GDC 19) establishes a dose limit of 5 Rem whole body or equivalent for these personnel while responding to an accident. The accident scenario was reevaluated considering bypass leakage of 14000 sccm or .104 La during the first 24 hours of the accident. The leakage is assumed to drop to one half this value after 24 hours in correspondence to the reduced containment pressure assumed after 24 hours. The results of this reanalysis showed that the dose to control room personnel was still in compliance with GDC 19.

Based on this review, it is determined that the increase in bypass leakage to .104 La is not a significant hazard to the health and safety of the public. Sufficient leakage margin above the leakage as measured through tests is available to ensure that leakage will not increase above the revised limit during the period when the Technical Specification change is in

effect. Since the bypass leakage is primarily through one penetration, a program of increased testing of this penetration is being implemented along with this change in allowable leakage. This will further ensure the bypass leakage remains well within the revised limits during unit operation.

The main steam penetration assembly acts as a part of the primary containment boundary and is thus a fission product barrier. The increase in leakage through this barrier results in an increase in consequence for accidents which require containment integrity for accident mitigation. Analysis of these accidents show that all dose consequences are within acceptable bounds considering increased containment bypass leakage. There is no increase in the probability of an accident since no accident initiators are involved with this change. The function of all equipment remains the same except that the outer bellows is now considered a part of the containment pressure boundary. The space between the inner and outer bellows is vented to the annulus where any leakage is filtered by the Annulus Ventilation system. This leakage is considered within the total containment leakage allowable of .3% containment air mass per day. The amount of leakage following this path is small compared to the total allowable which is considered in dose analysis. The .6 La limit for total measured leakage from penetrations and valves subject to type B and C testing continues to be met considering this increased leakage. Therefore, there are no new accidents made credible by this change in technical specifications.

The increased monitoring of the penetration will ensure that no unacceptable degradation of the containment will occur during operation. Therefore, there is no increase in the probability or consequence of a malfunction of equipment necessary for mitigation of an accident.

All fission product barriers remain in place and function as previously considered in safety evaluations to limit accident consequences to acceptable levels. No new accidents are made credible which would lead to consequences beyond those considered acceptable. Therefore, there is no reduction in the margin of safety as defined in the Technical Specifications and safety evaluation of the station.

The increase in allowable bypass leakage will not increase dose to the public or personnel required for accident mitigation to an unacceptable level. Increased monitoring of the penetration will ensure that no unacceptable degradation of containment integrity will occur. No new accidents are made credible by the proposed change. Therefore, it is concluded that the Technical

Specification change is acceptable with regard to the health and safety of the public and will not create a safety hazard.

Environmental Impact Analysis

The proposed amendment has been reviewed against the criteria of 10 CFR 51.22 for environmental considerations. The proposed amendment does not involve a significant increase in the amounts, and no significant change in the types, of any effluent that may be released offsite and that there is no significant increase in individual or cumulative occupational exposure. Therefore, the proposed amendment meets the criteria given in 10 CFR 51.22(c)(9) for a categorical exclusion from the requirement for an environmental impact statement.