

ATTACHMENT I TO IPN-94-154

PROPOSED TECHNICAL SPECIFICATION CHANGES
ASSOCIATED WITH
LEAK RATE TESTING INTERVAL FOR RESIDUAL HEAT REMOVAL
CONTAINMENT ISOLATION VALVES
AC-732, AC-741, AC-MOV-743, AC-MOV-744, AND AC-MOV-1870

NEW YORK POWER AUTHORITY
INDIAN POINT 3 NUCLEAR POWER PLANT
DOCKET NO. 50-286
DPR-64

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E. Containment Isolation Valves

1. Tests and Frequency

- a. Isolation valves in Table 4.4-1 shall be tested for operability at intervals no greater than 30 months (24 months + 25%).
- b. Isolation valves in Table 4.4-1 which are pressurized by the Weld Channel and Penetration Pressurization System shall be leakage tested as part of the Weld Channel and Penetration Pressurization System Test at intervals no greater than 30 months (24 months + 25%).
- c. Isolation valves in Table 4.4-1 which are pressurized by the Isolation Valve Seal Water System shall be tested at intervals no greater than 30 months (24 months + 25%)* as part of an overall Isolation Valve Seal Water System Test.
- d. Isolation valves in Table 4.4-1 which are not pressurized will be tested at intervals no greater than 30 months (24 months + 25%)*.
- e. Isolation valves in Table 4.4-1 shall be tested with the medium and at the pressure specified therein.

2. Acceptance Criteria

- a. The combined leakage rate for the following shall be less than $0.5 L_a$: isolation valves listed in Table 4.4-1 subject to gas or nitrogen pressurization testing, air lock testing as specified in D.1, portions of the sensitive leakage rate test described in C.1 which pertain to containment penetrations and double-gasketed seals.
- b. The leakage rate into containment for the isolation valves sealed with the service water system is 0.36 gpm per fan cooler.
- c. The leakage rate for the Isolation Valve Seal Water System shall not exceed 14,700 cc/hr.

* During the Restart and Continuous Improvement Outage, leakage testing of Containment Isolation Valves AC-732, AC-741, AC-MOV-743, AC-MOV-744, and AC-MOV-1870 may exceed the 30 month interval requirement provided the valves are tested prior to T_{avg} exceeding 350°F.

ATTACHMENT II TO IPN-94-154

SAFETY EVALUATION OF PROPOSED TECHNICAL SPECIFICATION CHANGES

ASSOCIATED WITH

LEAK RATE TESTING INTERVAL FOR RESIDUAL HEAT REMOVAL

CONTAINMENT ISOLATION VALVES

AC-732, AC-741, AC-MOV-743, AC-MOV-744, AND AC-MOV-1870

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Section I - Description of Changes

This application for amendment to the Indian Point Unit 3 (IP3) Technical Specifications proposes to revise Section 4.4 of Appendix A of the Operating License. The proposed change would allow a one time extension to the leakage rate test interval for Residual Heat Removal (RHR) containment isolation valves AC-732, AC-741, AC-MOV-743, AC-MOV-744, and AC-MOV-1870. The leak rate tests for these valves will be performed prior to T_{avg} exceeding 350°F.

Section II - Evaluation of Changes

In accordance with Technical Specification 4.4.E.1, containment isolation valves are currently required to be leak rate tested at intervals no greater than 30 months. Technical Specification 4.1 allows this 30 month interval to be exceeded while T_{avg} remains below 200°F. This application for amendment proposes a one time change to Technical Specification 4.4.E.1 that would allow the testing interval for the RHR Containment Isolation Valves to exceed 30 months while T_{avg} remains below 350°F. The Authority has already received an exemption from the requirements of 10 CFR Part 50, Appendix J, Paragraph III.D.3 that would allow the interval for Type C tests of the RHR containment isolation valves to be extended until T_{avg} exceeds 350°F (Issuance of Exemption dated November 4, 1994).

IP3 has been in an extended non-refueling outage (the Restart and Continuous Improvement Outage) since February 1993. Due to this outage, it was necessary for the Authority to evaluate whether leak rate testing of RHR containment isolation valves AC-732, AC-741, AC-MOV-743, AC-MOV-744, and AC-MOV-1870 during the current outage was beneficial considering the fact that the RHR system was being relied upon to ensure the removal of reactor decay heat and to prevent boron stratification. Initially, the Authority determined that, due to reactor decay heat removal requirements and boron stratification concerns, it would not be beneficial to remove the RHR system from service to test these valves until the next refueling outage. The Authority has reevaluated this determination, and has concluded that the RHR containment isolation valves can be safely tested when T_{avg} is above 200°F and below 350°F. When T_{avg} is above 200°F and below 350°F, the reactor coolant pumps and steam generators can be used to remove reactor decay heat.

The proposed Technical Specification change, in conjunction with the aforementioned exemption to paragraph III.D.3 of 10 CFR 50 Appendix J, would allow the Authority to exceed 200°F without having tested RHR containment isolation valves within their required periodicity. The proposed Technical Specification change, which would require the Authority to test the valves before T_{avg} exceeds 350°F, would allow the RHR system to be taken out of service at a time when it would be practical to do so. Although current Technical Specifications require that the valves be tested

prior to T_{avg} exceeding 200°F, the Authority believes that when T_{avg} is below 200°F, the benefit of testing the valves would not justify the removal of the RHR system from service while it is being relied upon to remove reactor decay heat.

Each of the three RHR lines associated with valves AC-732, AC-741, AC-MOV-743, AC-MOV-744, and AC-MOV-1870 has redundant isolation barriers and is supplied by the Isolation Valve Seal Water System (IVSWS) which would minimize any leakage past the isolation barriers. Further, due to the periodic surveillance that ensures that leakage from RHR components located outside containment does not exceed two gallons per hour, even if significant leakage past the RHR containment isolation valves occurred, this would not significantly affect off-site exposures. Additionally, the most recent test results associated with valves AC-732, AC-741, AC-MOV-743, AC-MOV-744, and AC-MOV-1870 show that the leak rates of the valves were well within the acceptance criteria of the tests. Therefore, there is assurance of containment integrity while T_{avg} is above 200°F and below 350°F.

The revised testing procedure required to test the RHR containment isolation valves with T_{avg} above 200°F and below 350°F can be performed in accordance with the current Technical Specifications. During testing of these valves, Technical Specification 3.3.A.2 will ensure that either the RHR system is returned to service within 20 hours or the reactor is brought to cold shutdown within 20 hours following expiration of the one hour limiting condition of operation. Additionally, during testing of these valves, Technical Specification 3.6.A.3 will ensure containment integrity is restored within 30 hours or the reactor is brought to cold shutdown within 30 hours following expiration of the one hour limiting condition of operation.

Section III - No Significant Hazards Evaluation

Consistent with the criteria of 10 CFR 50.92, the enclosed application is judged to involve no significant hazards based on the following information:

- (1) Does the proposed license amendment involve a significant increase in the probability or consequences of an accident previously evaluated?

Response:

The proposed license amendment does not involve a significant increase in the probability or consequences of an accident previously evaluated. The proposed change is limited to a one-time extension of the containment isolation valve leak rate tests for RHR valves AC-732, AC-741, AC-MOV-743, AC-MOV-744, and AC-MOV-1870. Testing the RHR containment isolation valves while T_{avg} is above 200°F and below 350°F is considered to be a more practical time to test the valves because, in this configuration, the reactor coolant pumps and steam generators can be used to remove decay heat. Additionally, the revised testing procedure required to test the RHR containment isolation valves with T_{avg} above 200°F and below 350°F can be performed in accordance with the current Technical Specifications. Therefore, the probability of a previously evaluated accident is not significantly increased. The consequences of a previously evaluated accident would

not be significantly increased because each of the three RHR lines associated with valves AC-732, AC-741, AC-MOV-743, AC-MOV-744, and AC-MOV-1870 has redundant isolation barriers and is supplied by the IVSWS which would minimize any leakage past the isolation barriers. Further, due to the periodic surveillance that ensures that leakage from RHR components located outside containment does not exceed two gallons per hour, even if significant leakage past the RHR containment isolation valves occurred, this would not significantly affect off-site exposures.

- (2) Does the proposed license amendment create the possibility of a new or different kind of accident from any accident previously evaluated?

Response:

The proposed license amendment does not create the possibility of a new or different kind of accident from any accident previously evaluated. The proposed change does not introduce new accident initiators or failure mechanisms since the change does not alter the physical characteristics of any plant system or component. The change is limited to a one-time extension to the leak rate test interval for RHR valves AC-732, AC-741, AC-MOV-743, AC-MOV-744, and AC-MOV-1870.

- (3) Does the proposed amendment involve a significant reduction in a margin of safety?

Response:

The proposed amendment does not involve a significant reduction in a margin of safety. Testing the RHR containment isolation valves while T_{avg} is above 200°F and below 350°F is considered to be a more practical time to test the valves because, in this configuration, the reactor coolant pumps and steam generators can be used to remove decay heat. Additionally, the revised testing procedure required to test the RHR containment isolation valves with T_{avg} above 200°F and below 350°F can be performed in accordance with the current Technical Specifications. Therefore, there is not a significant reduction in a margin of safety. With respect to containment integrity, there is not a significant reduction in a margin of safety because each of the three RHR lines associated with valves AC-732, AC-741, AC-MOV-743, AC-MOV-744, and AC-MOV-1870 has redundant isolation barriers and is supplied by the IVSWS which would minimize any leakage past the isolation barriers. The most recent test results associated with valves AC-732, AC-741, AC-MOV-743, AC-MOV-744, and AC-MOV-1870 show that the leak rates of the valves were well within the acceptance criteria of the tests. Further, due to the periodic surveillance that ensures that leakage from RHR components located outside containment does not exceed two gallons per hour, even if significant leakage past the RHR containment isolation valves occurred, this would not significantly affect off-site exposures.

Section IV - Impact of Changes

These changes will not adversely affect the following:

ALARA Program
Security and Fire Protection Programs
Emergency Plan
FSAR or SER Conclusions
Overall Plant Operations and the Environment

Section V - Conclusions

The incorporation of these changes: a) will not increase the probability nor the consequences of an accident or malfunction of equipment important to safety as previously evaluated in the Safety Analysis Report; b) will not increase the possibility for an accident or malfunction of a different type than any evaluated previously in the Safety Analysis Report; c) will not reduce the margin of safety as defined in the bases for any technical specification; d) does not constitute an unreviewed safety question; and e) involves no significant hazards considerations as defined in 10 CFR 50.92.

Section VII - References

- a) IP3 FSAR
- b) IP3 SER
- c) NRC Letter, N. F. Conicella to W. J. Cahill, Jr., "Issuance of One-Time Exemption from the Requirements of 10 CFR Part 50, Appendix J, Paragraph III.D.3," dated November 4, 1994.

ATTACHMENT III TO IPN-94-154

COMMITMENTS RELATED TO
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<u>Commitment Number</u>	<u>Commitment Description</u>	<u>Due Date</u>
IPN-94-154-01	The leak rate tests for Residual Heat Removal (RHR) containment isolation valves AC-732, AC-741, AC-MOV-743, AC-MOV-744, and AC-MOV-1870 will be performed prior to T_{avg} exceeding 350°F.	Prior to T_{avg} exceeding 350°F.
IPN-94-154-02	Revise 3PT-R35 to test valves AC-732, AC-741, AC-MOV-743, AC-MOV-744 and AC-MOV-1870, above 200°F and prior to T_{avg} exceeding 350°F.	Prior to T_{avg} exceeding 350°F.