ATTACHMENT I

# PROPOSED TECHNICAL SPECIFICATION CHANGES

# RELATED TO INTEGRATED LEAKAGE RATE TEST DURATION

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

## 4.4 CONTAINMENT TESTS

### Applicability

Applies to containment leakage.

### Objective

To verify that potential leakage from the containment is maintained within acceptable values.

### Specification

A. Integrated Leakage Rate

1. Test

a. A full pressure integrated leakage rate test shall be performed at intervals specified in A.3 at the peak accident pressure ($P_a$) of 40.6 psig minimum.

b. A test duration of 24 hours, or an NRC approved reduced duration methodology shall be used. The test shall be extended a sufficient period of time to verify, by superimposing a known leak rate on the containment, the validity and accuracy of the leakage rate results.

c. A general inspection of the accessible interior and exterior surfaces of the containment structures and components shall be performed prior to performing an integrated leak test to uncover any evidence of structural deterioration which may affect either the containment structural integrity or leak tightness. If there is evidence of structural deterioration, integrated leakage rate tests shall not be performed until corrective action is taken. Such structural deterioration and corrective actions taken shall be reported as part of the test report.

The minimum duration of 24 hours for the integrated leakage rate test is established to attain the desired level of accuracy and to allow for daily cyclic variation in temperature and thermal radiation. If an ILRT of a duration less than 24 hours is attempted, the criteria of the Bechtel Topical Report, BN-TOP-1, Revision 1, or other NRC accepted methodology, will be met.

The frequency of the periodic integrated leakage rate test is keyed to the schedule for major shutdowns for inservice inspection and refueling. The specified frequency of periodic integrated leakage rate testing is based on the following major considerations.

First is the low probability of leaks in the liner, because of

(a) the tests of the leak-tight integrity of the welds during erection;

(b) conformance of the complete containment to a low leakage rate limit at 40.6 psig or higher during pre-operational testing, and

(c) absence of any significant stresses in the liner during reactor operation.

Secondly, the Weld Channel and Penetration Pressurization System is in service continuously to monitor leakage from potential leak paths such as the containment personnel lock seals and weld channels, containment penetrations, containment liner weld channels, double-gasketed seals and spaces between certain containment isolation valves and personnel door locks. A leak would be expected to build up slowly and would, therefore, be noted before design limits are exceeded. Remedial action can be taken before the limit is reached.

During normal plant operation, containment personnel lock door seals are continuously pressurized after each closure by the Weld Channel and Penetration Pressurization System. Whenever containment integrity is required, verification is made that seals repressurize properly upon closure of an air lock door.

ATTACHMENT II

SAFETY EVALUATION

RELATED TO

INTEGRATED LEAKAGE RATE TEST DURATION

TECHNICAL SPECIFICATION CHANGES

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

Section I - Description of Changes

This change revises pages 4.4-1 and 4.4-8 of Appendix A to the Indian Point 3 Technical Specifications. This will allow a reduced integrated leakage test (ILRT) duration in accordance with an approved NRC methodology.

Section II - Evaluation of Changes

This change involves a reduction in the ILRT duration. Specific NRC approval has been granted for shorter duration testing at several sites. By letter dated February 1, 1973, from R. C. DeYoung, Assistant Director for Pressurized Water Reactors, Directorate of Licensing, to R. D. Allen, Vice President, Bechtel Corporation; the NRC approved Bechtel Topical Report BN-TOP-1, Revision 1 , which provides shorter duration testing criteria for ILRTs. Should a shortened test duration be used, the Authority plans to use the methodology contained in Section 2.0 of BN-TOP-1, Revision 1, or other NRC acceptable methodologies to judge the test acceptable.

Section III - No Significant Hazards Evaluation

In accordance with the requirements of 10 CFR 50.92, the enclosed application is judged to involve no significant hazards based upon 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 any increase in the probability or consequences of an accident previously evaluated. The proposed amendment will allow use of the Bechtel Topical Report, BN-TOP-1, or other NRC accepted methods for conducting a containment ILRT. Maintaining containment leakage within acceptable limits provides assurance that the consequences of a potential accident can be effectively mitigated. Since the acceptance values for containment leakage under the reduced duration methodology remain unchanged, the consequences of accidents previously evaluated are not affected.

(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 amendment involves methods for testing potential containment leakage. Maintaining containment leakage within acceptable limits provides assurance that the consequences of a potential accident can be effectively mitigated. Since ILRT methods and results relate to accident mitigation, event sequences and accident analyses are not affected. Therefore, the possibility of a new or different kind of accident is not created.

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

Response:

The proposed amendment allows use of an NRC acceptable reduced duration methodology for conducting an ILRT that is equivalent to the 24 hour duration test. Under the new methodology, acceptance values for containment leakage remain unchanged and therefore a significant reduction in a margin of safety is not involved.

In the April 6, 1983 Federal Register, Vol. 48, No. 67, Page 14870, the NRC published a list of examples of amendments that are not likely to involve a significant hazards concern. Example (iv) of that list applies to the reduced duration ILRT methodology and states:

> (iv) A relief granted upon demonstration of acceptable operation from an operating restriction that was imposed because acceptable operation was not yet demonstrated. This assumes that the operating restriction and the criteria to be applied to a request for relief have been established in a prior review and that it is justified in a satisfactory way that the criteria have been met.

In this case, the restriction of 24 hours duration when conducting the containment ILRT, had no firm engineering basis. BN-TOP-1, Revision 1 established the technical basis for a reduced duration test and has been found acceptable in a prior review by the NRC.

Section IV - Impact of Change

This change will not adversely impact 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 this modification: 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 VI - References

a) IP-3 FSAR

b) IP-3 SER

c) BN-TOP-1, "Testing Criteria for Integrated Leakage Rate Testing of Primary Containment Structures for Nuclear Power Plants," Revision 1: November 1, 1972.

d) Letter from R. C. DeYoung, Assistant Director for Pressurized Water Reactors, Directorate of Licensing (NRC), to R. D. Allen, Vice President, Bechtel Corporation, dated February 1, 1973.