ATTACHMENT A

Technical Specification
Page Revisions

Consolidated Edison Company of New York, Inc.
Indian Point Unit No. 2
Docket No. 50-247
July, 1987

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 47 psig minimum.

b. The test duration shall not be less than 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.

continuously pressurizing both the penetrations and the channels over all containment liner welds. These channels were independently leak-tested during construction.

The safety analysis has been performed on the basis of a leakage rate of 0.10 w/o per day for 24 hours. With this leakage rate and with minimum containment engineered safeguards operating, the public exposure would be well below 10CFR100 values in the event of the design basis accident.(3)

The performance of a periodic integrated leakage rate test during plant life provides a current assessment of potential leakage from the containment. In order to provide a realistic appraisal of the integrity of the containment under accident conditions, the containment isolation valves are to be closed in the normal manner and without preliminary exercising or adjustments.

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 47 psig or higher during pre-operational testing; and

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

ATTACHMENT B

Safety Assessment

Consolidated Edison Company of New York, Inc.
Indian Point Unit No. 2
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SAFETY ASSESSMENT

The proposed amendment revises pages 4.4-1 and 4.4-7 of Appendix A to the Indian Point 2 Technical Specifications. This will allow an Integrated Leakage Rate Test (ILRT) duration of less than 24 hours in accordance with an NRC approved methodology.

It has been customary to conduct ILRTs on primary containment structures for a duration of at least 24 hours. However, several past primary containment tests have provided additional information regarding to containment leakage rate test duration. Test results have shown that a successful primary containment ILRT can be conducted in considerably less than 24 hours. Bechtel Corporation's containment testing program proved that the acceptability or nonacceptability of the leakage rate measurements could be determined within 4 to 6 hours after the start of the test. Their data which was based upon pressurized water reactor containments demonstrated that a reliable containment ILRT can be run successfully in less than 24 hours. As a result, it is more realistic and equally conservative to commit to an ILRT duration of less than 24 hours.

Specific NRC approval has been granted for a reduction in the ILRT duration at several sites. By letter dated February 1, 1973 from R.C. De Young, 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. Indian Point Unit 2 presently plans to use the methodology contained in the Bechtel Topical Report BN-TOP-1, Revision 1, or other NRC acceptable methodologies to judge the test acceptable, should this proposed Technical Specification amendment be approved.

Basis for No Significant Hazards Consideration Determination

The Commission has provided guidance concerning the application of the standards for determining whether a significant hazards consideration exists by providing certain examples (48 FR 14870) of amendments that are considered not likely to involve significant hazards considerations. Example (IV) of those involving no significant hazards considerations relates to 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, that it is justified in a satisfactory way, and that the criteria have been met.

The proposed change to allow a reduced duration ILRT relates to the aforementioned example (IV). In this case, the restriction of 24 hours duration when conducting the containment ILRT has no firm engineering basis. Bechtel Topical Report BN-TOP-1, Revision 1 established the

technical basis for a reduced duration test and has been found acceptable in a prior NRC review. Because of the improved testing technology and high level of confidence in the Bechtel testing program, the reduced duration test has been found to be equal to the reliablity and accuracy of the 24 hour test. Furthermore, test length is considered an integral part of the testing procedure since the test cannot be terminated until the containment leakage rate stabilizes within the acceptance criteria which remains unchanged from current IP-2 Technical Specifications.

Consistent with the Commission's criteria for determining whether a proposed amendment to an operating license involves no significant hazards consideration, 10 CFR 50.92 (48 FR 14871), we have determined that the aforementioned proposed change would not:

1) involve a significant increase in the probability or consequences of an accident previously evaluated, since the acceptance values for containment leakage under the reduced duration methodology remain unchanged. The proposed amendment will allow use of the NRC approved Bechtel Topical Report, BN-TOP-1, or other NRC accepted methods which demonstrate that sufficient data can be collected during the ILRT to permit performance of a reliable test in less than 24 hours. Maintaining containment leakage within acceptable limits provides assurance that the consequences of a potential accident can be effectively mitigated.

2) create the possibility for a new or different kind of accident from any previously evaluated, since ILRT methods and results relate to accident mitigation, event sequences and accident analyses are not affected. The proposed amendment involves more realistic 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. Therefore, the possibility of a new or different kind of accident is not created.

3) involve a significant reduction in the margin of safety, since the proposed change allows use of a methodology for conducting an ILRT with reduced duration that is equivalent to the 24 hour duration test. Under the new methodology, acceptance values for containment leakage remain unchanged and therefore do not significantly reduce the margin of safety.

Based upon the above considerations, we conclude that the proposed change does not constitute a significant hazards consideration.

The proposed changes have been reviewed by both the Nuclear Power Station Nuclear Safety Committee and the Consolidated Edison Nuclear Facilities Safety Committee. Both committees concur that the proposed change does not represent a significant hazards consideration.