Commonwealth Edison Company
1400 Opus Place
Downers Grove, IL 60515

ComEd

May 25, 1995

Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Attn: Document Control Desk

Subject: Information Regarding Commonwealth Edison Company
Leak Rate Test Program for
Byron and Braidwood Stations
NRC Docket Numbers 50-454 and 50-456

References:
1. Teleconference between Commonwealth Edison Company and the Nuclear Regulatory Commission dated May 23, 1995, Regarding the Leak Rate Test Program

2. May 9, 1995, Meeting between Commonwealth Edison Company and the Nuclear Regulatory Commission Regarding the Leak Rate Test Program

3. D. Saccomando letter to Nuclear Regulatory Commission dated April 3, 1995, transmitting ComEd's Proposed Leak Rate Test Program

In Reference letter the Commonwealth Edison Company (ComEd) submitted to the Nuclear Regulatory Commission (NRC) proposed test program that will determine the bounding Main Steam Line Break leak rate for indications restricted from burst by the presence of a tube support plate.

On May 9th a meeting was held with the NRC to discuss results of the first two test specimens. During this meeting minor changes to the test program was discussed by the Staff and ComEd. On May 23rd the referenced teleconference was held in which ComEd provided clarification to the test program and discussed an additional minor change to the program. The Attachment documents the clarification/changes. ComEd would like to stress that the minimal changes to the test program will have no impact on the validity of the test results.

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If you have any questions concerning this correspondence, ComEd would welcome the opportunity to meet with the Staff to provide further clarification and justification.

Sincerely,

Denise M. Saccomando
Nuclear Licensing Administrator

cc: D. Lynch, Senior Project Manager, NRR
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Attachment

COMED BOUNDING LEAK RATE TEST PROGRAM

INTRODUCTION

This document was created to clearly identify changes as of May 19, 1995, to the Bounding Leak Rate Test Program submitted by ComEd to the NRC in a letter dated April 3, 1995.

TEST PLAN OBJECTIVE

The following is the test plan objective as defined in the April 3, 1995 transmittal:

"Develop a bounding MSLB leak rate for large (> 0.6 inch) indications which have been restricted from burst (IRB) by the presence of a tube support plate (TSP). This bounding leak rate value will be used in a leak rate calculation which takes into account both free span and IRB leakage.

ComEd does not have an objective to create or test a low voltage (1 volt or less) 3/4 inch long crack. However, long cracks (> 0.6 inch) will be created and tested."

BOUNDING TEST PROGRAM

As indicated in Attachment C of the April 3, 1995, ComEd submittal to the NRC, a bounding test program consisting of nine separate tests was developed. This test program is underway at this time. Of the nine tests, ComEd further stated that "...the only testing required to bound the MSLB leak rate are tests 2-1, 2-4, 2-7 and 1-7. Other tests are only planned to improve the industry's understanding of leakage from IRBs."

The industry/ComEd bounding leak rate test program is well underway with specimens 4-1 and 2-4. Preliminary results for these specimens were presented to the NRC at a meeting on May 9, 1995. Subsequent to that meeting, during the week of May 15, 1995, the corrosion test facility specimens were removed and examined and four cracked specimens were identified in 3/4 inch tubes. These specimens contained .45, .59, .6 and .66 inch long OD cracks. The ID crack length varied between 0.2 inches and 0.4 inches.

With the recognition that these corrosion specimens were available, ComEd and Westinghouse had extensive discussions to outline: 1) the best use of these four specimens in completing the four specimen 3/4 inch test program and 2) to schedule this testing to achieve the maximum number of leak rate test results at the earliest possible date. When this testing is complete, ComEd believes that the test program for specimens 2-10, 2-4 and 2-7 will be complete and test 1-7 will be partially complete. This will complete testing of the high priority 3/4 inch specimens. The only remaining specimen testing required to complete the ComEd defined minimum test program is specimen 2-1, this is 7/8 inch specimen with testing scheduled to be complete by July 15, 1995.

Additional sample preparation and testing to complete the bounding test program for specimens 1-1, 1-2, 1-6, 2-10 and 4-1 is underway. Specimen 4-1 testing will be completed following the 3/4 inch specimen testing. Specimens 1-2, 1-1 and 2-1 will be completed as cracked tubes become available for testing from the corrosion test facility with the necessary crack lengths. ComEd and Westinghouse continue to evaluate the best method to complete testing of all nine specimens by July 15, 1995.

TEST PLAN CHANGES

As proposed in the Commonwealth Edison submittal dated April 3, 1995, four different test sequences were proposed. Of the four sequences, only three sequences contained high priority tests needed to develop a bounding leak rate. These were test sequences 1, 2 and 4. Test sequence 4 testing will be completed when specimen 4-1 tests are complete.

The following are changes to the details to test sequence 2 to expedite testing for specimens 2-4, 2-7 and 2-10:

1. During leak testing, the crack tip will be located at the edge of the tube support plate for leak tests without TSP offset. This is a clarification of the April 3, 1995 test program as discussed at the May 9, 1995 meeting.

2. Leak testing for offset conditions will be conducted with the crack tip 0.10 inches offset (3/4 inch tubes) outside the tube support plate. This is a clarification of the April 3, 1995 test program as discussed at the May 9, 1995 meeting.

3. For test 2-7 conduct room temperature leak rate test with the crack tip at the edge of the tube support plate at about 1800, 1900 and 2000 pounds ΔP.

4. Conduct test 2-7 free span leak rate test at room temperature and about 2000, 2150 and 2335 psi ΔP.

Items 3 and 4 are minor changes to the test plan proposed April 3, 1995. The objective of conducting these tests at room temperature is to eliminate approximately 4-6 days in test time for this one specimen. Specimen 2-7 will be tested both hot and cold with the ΔP of 2335 pounds. This data, with the hot and cold testing under the same ΔP conditions for specimens 2-4 and 2-10, will provide the necessary data to support a hot to cold correlation. ComEd believes this change to the test program will expedite the testing while providing valid sufficient data. It is important to note that the important test conditions of crack tip offset at 2335 and 2560 will give leak test data based upon hot conditions.

5. Conduct test 2-7 hot leak test with the crack tip offset 0.1 inch at about 2335, 2560, 2700 and at the highest ΔP allowed by the test facility. This is a clarification of the April 3, 1995 test program.

6. Testing for specimens 2-4 and 2-10 is primarily at hot conditions as defined in the April 3, 1995 test program.

7. For specimens with burst pressure > 4000 psi, initial bladder pressurization will be performed at an intermediate value lower than calculated burst followed by the appropriate hot and cold leak rate measurements. This change to the April 3, 1995, test program provides an intermediate leak rate data point prior to bladder pressurization at the calculated burst pressure.

Following review of the test results for specimens 1-7, 2-1, 2-4 and 2-7, ComEd believes sufficient data will be available when considered in the context of the existing free span leak test data to clearly justify the Technical Specification change requested. However, the industry and ComEd are committed to completion of the bounding leak rate test matrix as soon as possible.