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April 5, 1983

Mr. James G. Keppler, Regional Administrator
Directorate of Inspection and
Enforcement - Region III
U.S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, IL 60137

Subject: Quad Cities Station Unit 1
Response to I. E. Inspection Reports
50-254/82-24 and 50-265/82-28
NRC Docket Nos. 50-254 and 50-265

Dear Mr. Keppler:

The subject NRC Inspection Reports deal with the conduct of an Integrated Primary Containment Leak Rate Test (IPCLRT) for Quad-Cities Unit 1 in December, 1982. Although there were no items of non-compliance, the NRC noted two items that are of significance:

1. It was determined that the computer program used in the conduct of the IPCLRT is not subjected to the same quality assurance requirements as the procedures used to implement the test. A response was requested for this open item.

2. The NRC's review of the last 2 consecutive IPCLRT's for Unit One indicated that they apparently failed to meet the acceptance criteria of 10 CFR 50, Appendix J. Therefore, it is the contention of the NRC that this necessitates the performance of an IPCLRT on Unit One during each refuel outage until 2 consecutive tests meet the acceptance criteria.

Attached is a response to item 1. above which outlines the corrective actions taken to prevent recurrence. Commonwealth Edison disagrees with the NRC's conclusion relative to item 2. A response is also attached for this item, indicating the bases for disagreement.

Please be advised that we are still researching this issue and that (1) additional justification for our position may be forthcoming (2) a request for a meeting with Region III for justification of their position on this matter may be made and (3) possible appeal to NRR for resolution of this matter. We trust you will give full consideration to our enclosed response.

Please address any questions on this matter to this office.

B. Rybak

Bob Rybak
Nuclear Licensing Administrator

rh/lm

cc: R. Bevan NRR
R. Gilbert NRR
Resident Inspector Quad Cities
Resident Inspector Dresden

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ATTACHMENT 1

Response to Open Item 50-254/82-24-01; 50-265/82-28-01

It was noted by the inspector that a major portion of the IPCLRT held December 14, 1982 through December 16, 1982 was performed by the plant computers and computer software. This software did not undergo the same level of review and approval prior to the test as the test procedures.

To rectify this situation, a Station On-Site Review was held on February 28, 1983 which documented the computer program used for the computation for the Integrated Leak Rate Test. The documentation package contains a flow chart, a program listing, and a series of benchmarks for the program written by Station personnel. The program flow chart and listing were supplied to show the exact coding used to accomplish the calculations. A series of benchmarks documents the accuracy of the calibrations and compares the results to several examples given in Appendix B of the BN-TOP-1, Revision 1, November 1, 1972 topical report. The comparison of results indicated the results of the Station's computer program were well within the computational accuracy of the BN-TOP-1 report results. Revisions to this computer program and other computer programs used for conducting an IPCLRT will be similarly reviewed.

ATTACHMENT 2

Quad-Cities Unit One IPCLRT Schedule

The NRC Region III contends that the Quad-Cities Unit One LLRT results (Type B and C testing) during the Fall 1982 refueling outage constitute a failure to satisfy the IPCLRT (Type A test) acceptance criteria in 10 CFR 50, Appendix J. Section III.A.5.(b). It appears that regularly scheduled Type B and C testing as required by Section III.D.2 and 3 may not be performed prior to the Type A test or that a penalty must be added on to the Type A test result equal to the total "as-found minus as-left" leak rate for all leakage paths from the Containment. Region III also contends that the Type A test for Unit One in February of 1979 also failed to meet the acceptance criteria. During the Type A testing in 1979, a leakage path was discovered from the Containment through Drywell cooler instrument air lines. On this occasion it was necessary to make repairs correcting the leakage, repressurize the Containment, and re-start the Type A test including a stabilization phase. Therefore, Quad-Cities Unit One must perform a Type A test each refueling outage until two consecutive Type A tests meet the acceptance requirements (reference Section III.A.6.(b).).

The Station disagrees with the Region III position for a number of reasons. Let us first examine the contention that Type B and C tests performed in September of 1982 found to exceed the acceptance criteria in Sections III.B.3 and III.C.3 causes the Type A test performed in December of 1982 to automatically fail to comply with Section III.A.5.(b). Section A.5.(b). states "Acceptance Criteria --. . (2) Peak pressure tests shall be conducted. Lam shall be less than 0.75 L_a. If local leakage measurements are taken to affect repairs in order to meet the acceptance criteria, these measurements shall be taken at a test

pressure of P_a." The acceptance criteria specifically states that local leakage measurements (LLRT) and repairs may be performed in order to meet the acceptance requirements. The opposite position is apparently being taken by Region III.

Section III.A.1. defines the pretest requirements for Type A testing and gives the intended purpose of Type A testing, namely to test the Containment in as close to the "as is" condition as practical. Section III.A.1. states, "During the period between the completion of one Type A test and the initiation of the Containment inspection for the subsequent Type A test, repairs or adjustments shall be made to components whose leakage exceeds that specified in the Technical Specification as soon as practical after identification." The pretest Containment inspection, as defined in Section V.A., is the start of a Type A test. Type B and C test results in excess of Technical Specification limits were not only anticipated in Section III.A.1. but were also excluded from consideration in the Type A test. There is no reference in 10 CFR 50, Appendix J, to the "as found" Type A test results referred to by Region III. Section III.A.1. gives the explicit goal of determining an "as is" Containment leakage after all repairs made necessary by Type B and C test results have been performed.

The contention by Region III that Quad-Cities Unit One has failed to satisfy Type A test acceptance criteria for two consecutive Type A tests depends on the presumption that the February, 1979 testing failed to meet the acceptance criteria. We believe this was not the case. Section III.A.1. states "If during a Type A test, including the supplemental test . . ., potentially excessive leakage paths are identified which will interfere with satisfactory completion of the test, or which result in the Type A test not meeting the acceptance criteria . . ., the Type A test shall be terminated and the leakage through such paths shall be measured . . . . Repairs and/or adjustments to

equipment shall be made and a Type A test performed." In February, 1979, such a leakage path was identified. The test was terminated. Repairs were made; another Type A test was performed which satisfied the Type A test acceptance criteria of an L_{am} less than 0.75 L_a. Region III seems to be contending that the first test failure makes the second test also a failure. In fact, there have been two consecutive Type A tests that meet the acceptance criteria given in 10 CFR 50, Appendix J. Section III.A.5.(b).