

Commonwealth Edison Company

ONE FIRST NATIONAL PLAZA ★ CHICAGO, ILLINOIS

Address Reply to:

POST OFFICE BOX 767 ★ CHICAGO, ILLINOIS 60690

April 27, 1971

Regulatory

File Cy.

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Dr. Peter A. Morris, Director
Division of Reactor Licensing
U.S. Atomic Energy Commission
Washington, D.C. 20545

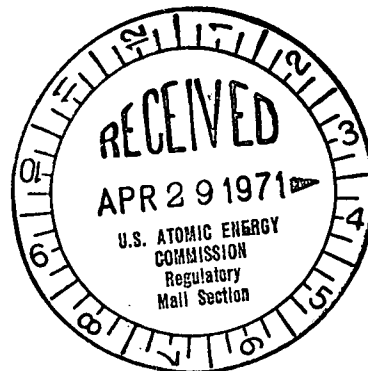
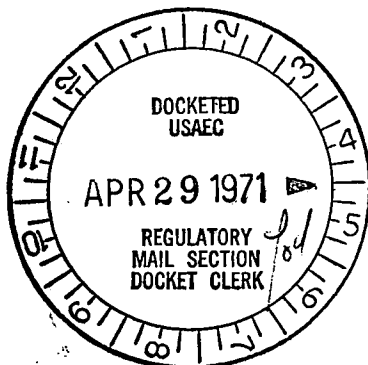
Dear Dr. Morris:

Enclosed are 60 copies of a Summary Technical Report describing a secondary containment leak rate test which was performed on Dresden Unit 2. This test was performed on February 25, 1971 in accordance with Section 4.7.C.1.c of the Dresden Unit 2 Technical Specifications.

This report is submitted in accordance with the requirements of Section 6.6.E of Appendix A of DPR-19.

Very truly yours,

Wayne L. Stiede
Nuclear Licensing Administrator



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Misc

DRESDEN NUCLEAR POWER STATION UNIT 2

Received w/Ltr Dated _____

SUMMARY TECHNICAL REPORT OF SECONDARY CONTAINMENT LEAK RATE TESTFebruary 25, 1971INTRODUCTION:

On February 25, 1971, prior to shutdown of Dresden Unit 2 for the fuel replacement outage, a secondary containment leak rate test was conducted, as required by the Dresden Unit 2 Technical Specifications, DPR-19, Section 4.7.C.1.c. The purpose of the test was to demonstrate "secondary containment capability to maintain 1/4 inch of water vacuum under calm wind (<5 mph) conditions with a filter train flow rate of not more than 4000 cfm".

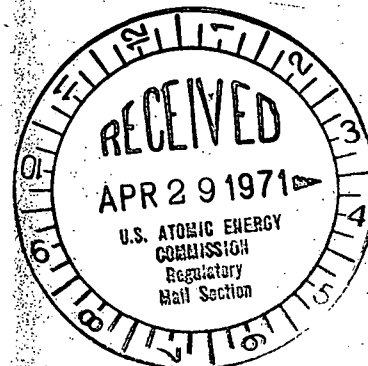
DESCRIPTION:

The test was conducted on February 25, 1971, just prior to shutting down Unit 2 for fuel replacement on February 26, 1971. Secondary containment status was typical of normal reactor building conditions. Routine work was allowed to continue within the reactor building during conduct of the test, with normal traffic moving unheeded through the secondary containment personnel air locks, and with one of the two large railroad lock doors open.

The test was initiated by manually tripping the reactor building ventilation monitors on both Units 2 and 3, which resulted in automatic shutdown and isolation of the ventilation systems, and automatic start of the "2/3 A" standby gas treatment system.

Data on wind speed and direction inside and outside air temperature and building differential pressures were obtained at a standby gas treatment system exfiltration flow rate of approximately 4070 cfm. The flow rate is measured downstream of both standby gas treatment system filter trains and it includes approximately 300 cfm of cooling air flow through the idle train. Consequently the vacuum obtained on the secondary containment is a result of a filter train flow rate significantly less than 4000 cfm.

Measurements of building differential pressures at zero flow conditions were obtained for use in correcting test data to "zero wind conditions". That is, the effect on building differential pressures due to wind conditions only, was subtracted from the data to obtain a "net" differential pressure due only to standby gas treatment system operation.



TEST RESULTS

Data collected during the test are tabulated in Table I. Differential pressures obtained, corrected for "zero wind conditions", are as follows.

<u>FILTER TRAIN</u>	<u>UNIT 2/3 AVERAGE REACTOR BUILDING WALL DP (inches H₂O)</u>				
<u>FLOW RATE (CFM)</u>	<u>AVERAGE</u>	<u>NORTH</u>	<u>EAST</u>	<u>SOUTH</u>	<u>WEST</u>
4070	-0.27	-0.30	-0.19	-0.27	-0.34

The results of the test indicate that the standby gas treatment filter train is capable of maintaining one-quarter inch of water vacuum under calm wind conditions in all areas of the building with a filter flow rate of not more than 4000 cfm. Average building differential pressure for the train results in approximately -0.27 inches of water with one of the two railroad doors open, indicating an adequate safety and performance margin for the building and standby gas treatment system.

TABLE I

SECONDARY CONTAINMENT INTEGRATED LEAK RATE TEST DATA

February 25, 1971

"A" SGTS TRAIN

NOTE: Outer RR Airlock Door Open
Inner RR Airlock Door Closed

<u>FLOW</u> <u>(cfm)</u>	<u>Average Wall DP (Inches Water)</u>			
	<u>NORTH</u>	<u>SOUTH</u>	<u>EAST</u>	<u>WEST</u>
0	+0.06	+0.05	-0.02	+0.07
4070	-0.24	-0.29	-0.21	-0.20

TEMPERATURE (°F)

Indoor: Wet Bulb 61
Dry Bulb 79

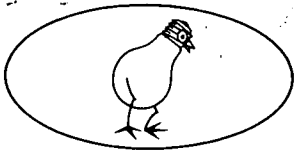
OUTDOOR: Dew Point 18
Dry Bulb 44

WIND VELOCITY (MPH)

35' Above Grade Level 5 ± 2
125' Above Grade Level 9 ± 2
300' Above Grade Level 8 ± 2
400' Above Grade Level 8 ± 2

WIND DIRECTION (DEGREES: 360° = NORTH)

35' Above Grade Level 180°
125' Above Grade Level 165°
300' Above Grade Level 185°
400' Above Grade Level 195°



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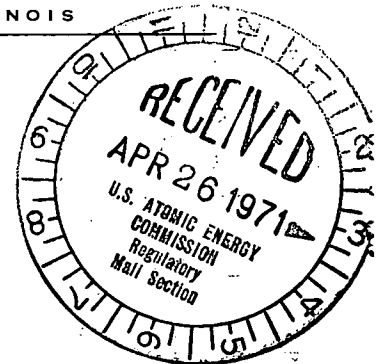
Commonwealth Edison Company

ONE FIRST NATIONAL PLAZA ★ CHICAGO, ILLINOIS

Address Reply to:

POST OFFICE BOX 767 ★ CHICAGO, ILLINOIS 60690

April 24, 1971



Dr. Peter A. Morris, Director
Division of Reactor Licensing
U.S. Atomic Energy Commission
Washington, D.C. 20545

Subject: Additional Information Concerning the Operation
of Dresden Unit 2

Dear Dr. Morris:

On April 7, 1971, a meeting was held with members of your staff to discuss current operational problems on Dresden Unit 2. At this meeting, we presented information concerning the indications which were found in the core spray safe ends, recent problems associated with limiter operators of the LPCI system, the torus paint problem, and the problem associated with the seismic restraints of the core spray system. Following this discussion, it was requested that information concerning the above items be submitted as formal reports to the Atomic Energy Commission.

Enclosed herewith are Report Nos. 10 through 13 covering the above items. These reports are being submitted as Special Reports as were the reports which we submitted to you in our March 22, 1971 letter. These reports discuss the nature of the four problems, their history, solutions to these problems, and the involvement of Commonwealth Edison in the decisions which we made relating to them.

In addition to three signed originals, 19 copies of this submittal are also being transmitted.

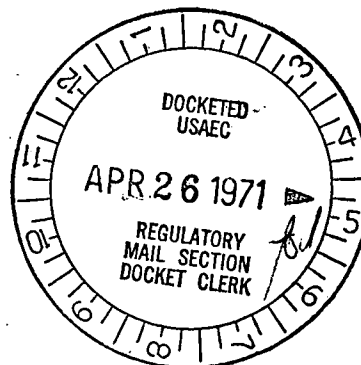
Very truly yours,

Byrdn Lee, Jr.
Byrdn Lee, Jr.

Assistant to the President

SUBSCRIBED and SWORN to
before me this 24th day
of April, 1971.

Patricia A. Nelson
Notary Public



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DV