THE CINCINNATI GAS & ELECTRIC COMPANY

CINCINNATI, OHIO 45201

E. A. BORGMANN
VICE PRESIDENT - ENGINEERING

Docket No. 50-358

February 23, 1979

Mr. Harold Denton, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

RE: WM. H. ZIMMER NUCLEAR POWER STATION - UNIT 1 - AMENDMENT 86 - SUBMITTAL OF REVISION 11 TO THE FIRE PROTECTION EVALUATION REPORT

Dear Mr. Denton:

The Cincinnati Gas & Electric Company on behalf of itself and as agent for Columbus and Southern Ohio Electric Company and The Dayton Power and Light Company hereby submits forty (40) copies of Revision 11 to the Fire Protection Evaluation Report for the Wm. H. Zimmer Nuclear Power Station - Unit 1 (ZPS-1).

Very truly yours,

THE CINCINNATI GAS & ELECTRIC COMPANY

By E. A. Borgmann
E. A. BORGMANN
Vice President - Engineering Services and Electric Production

EAB:dew
cc: Charles Bechhoefer
Glenn O. Bright
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Thomas A. Luebbers
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John D. Woliver

State of Ohio)
County of Hamilton) ss

Sworn to and subscribed before me this 16th day of February, 1979.

Mary B. Pfennig
Notary Public

MARY B. PFENNIG
Notary Public, State Of Ohio
My Commission Expires July 26, [illegible]

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WM. H. ZIMMER POWER STATION

INSTRUCTIONS FOR UPDATING YOUR FIRE PROTECTION EVALUATION REPORT

To update your copy of the ZPS-1 Fire Protection Evaluation Report, remove and destroy the following pages and insert pages and figures as indicated.

REMOVE	INSERT
Page Q7-1	Page Q7-1
Page Q12-1	Page Q12-1
Page Q21-1	Page Q21-1

QUESTION 7 (SECTION 8.4.2, DIVISION 1 SWITCHGEAR AREA)

"Describe the fire barriers to be provided for the Division 2 cable trays which pass through this area. Indicate the fire barrier rating to be specified."

RESPONSE

In the Division 1 switchgear area, the Division 2 (blue) redundant cable trays will be protected with Kaowool blanket material which has been qualified by test* for the tray configuration to be protected. The protective material will be of thickness as qualified by test to give a minimum 1-1/2-hour fire barrier. 11

7

Horizontal trays protected with the Kaowool blanket material will have the cables covered with a Kaowool blanket to given protection and retard propagation. Vertical trays (risers) will be enclosed with a Kaowool blanket material which has been qualified to give a minimum 1-1/2 hour fire barrier by test. 11

*This test titled, "Fire Protective Cable Tray Fire Test, September 1978 Through January 1979, for Wm. H. Zimmer Nuclear Station," (Engineering Report Number 78-9-FP-1) will be included in the next Fire Protection Revision.

QUESTION 12 (SECTION 8.4.9, LIFT TRUCK ROUTE INTO AUXILIARY BUILDING)

"a. Provide the results of an analysis of the effects on the redundant safety related cables and their associated systems of an exposure fire occurring in this area. Assume that the exposure fire is fueled by combustibles that are normally carried through this area by the lift trucks. If a fire should occur in this area that could not be extinguished by the sprinkler system or should the sprinkler system fail to operate, what are the consequences as they affect safe shutdown.

"b. Provide the design criteria for the sprinkler system to be provided for this area.

"c. This area is separated from the turbine building by a rated fire wall. A large opening is provided in this wall for the lift trucks to move between the turbine building and the reactor building. Describe the bulkhead type door, including the automatic or self-closing hardware to be provided and the fire rating of the door."

RESPONSE

a. Cable trays and cable bus for the Division 2 (blue) which cross this area will be protected by a 1-hour passive fire barrier in addition to the automatic sprinkler system. The cable trays will be protected by Kaowool blanket material (see Question 7). The cable bus will be protected by an enclosure of Kaowool blankets which have been qualified by test.* | 7 | 8 | 11

b. This area is protected by an automatic wet-pipe sprinkler system based on a design density of 0.30 gpm/ft^2 for a total flow of 484 gpm.

The sprinkler water for this system is a separate supply from the auxiliary building fire water supply header. | 7

c. As shown on drawing M-426, Sheet 11, in Chapter 8, this area is separated from the other areas of the auxiliary building by fire rated walls. At this elevation the lift truck route through this auxiliary building is considered an extension of the turbine building for fire protection requirements.

The removable bulkhead wall is designed to protect safety-related areas from the design-basis flood as discussed in FSAR Subsection 2.4.1.4.

See paragraph three on Page Q5-1 for a description of the water curtain wall at the turbine room entrance to the lift truck route. | 8

*This test titled, "Fire Protective Cable Tray Fire Test, September 1978 Through January 1979, for Wm. H. Zimmer Nuclear Station," (Engineering Report Number 78-9-FP-1) will be included in the next Fire Protection Revision.

QUESTION 21 (Sections 8.7.2 and 8.7.3, Fire Pump Rooms)

"The steel deck roof and supporting steel beams appear to be continuous between the two pump rooms. Analyze the effects of a fire in one pump room (i.e., rupture of the day tank in the diesel pump room) as it might affect the integrity of the wall/ceiling construction and possibly damage the other pump or control circuits, which could cause a loss of all fire fighting water."

RESPONSE

The structural steel beams in the diesel and motor-driven fire pump rooms and the columns that support the roof are protected with a fire-resistant material. The fire resistant material has a 3-hour rating in accordance with one of the following tested assemblies: UL X-708, UL N-712, X-716, X-719, X-727, and F.M. FC-206. A 3-hour rated 12-inch thick hollow concrete masonry unit firewall separates the two rooms. | 11 | 7