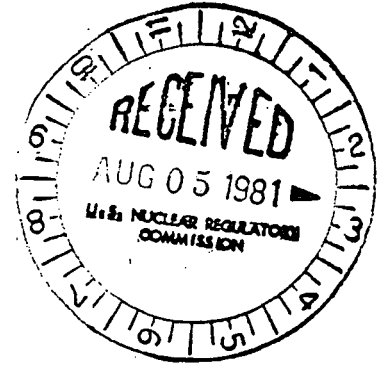




**Commonwealth Edison**  
 One First National Plaza, Chicago, Illinois  
 Address Reply to: Post Office Box 767  
 Chicago, Illinois 60690

August 3, 1981



Mr. Darrell G. Eisenhut, Director  
 Division of Licensing  
 U.S. Nuclear Regulatory Commission  
 Washington, DC 20555

Subject: Dresden Station Units 2 and 3  
 Quad Cities Station Units 1 and 2  
 Information Concerning Fire  
Protection Safe Shutdown Analyses

Reference (a): D. G. Eisenhut to All Power  
 Reactor Licensees with Plants  
 Licensed Prior to January 1,  
 1979, dated February 20, 1981.

(b): T. A. Ippolito letter to J. S. Abel  
 dated March 24, 1981.

Dear Mr. Eisenhut:

Enclosure 1 to Reference (a) requested that certain information concerning fire protection safe shutdown analysis be provided to complete the staff's review. Responses to Items 8-a through 8-l for Dresden Station Units 2 and 3 and Quad Cities Station Units 1 and 2 were submitted in letters to T. A. Ippolito from R. F. Janecek, dated January 23, 1980, February 29, 1980, and June 9, 1980.

This letter provides our response for Dresden Station Units 2 and 3 concerning all items requested in enclosure 2 of Reference (a) except items 1.D and 1.E. It should be noted that 1.D and 1.E are identical to items L and M of Reference (b). Due to the detailed work effort necessary to provide the information requested, items 1.D and 1.E for Dresden Station Units 2 and 3 and items 1.A through 1.E and 2.A through 2.D for Quad Cities Station Units 1 and 2 have not been completed. A response to items 1.A, B, C and 2.A through 2.D for Quad Cities Station will be provided by August 31, 1981. A response to items 1.D and 1.E for Dresden and Quad Cities Stations will be provided by November 15, 1981.

Enclosed with this response are ten (10) copies of drawings ES-374 sheets 1 through 13 and ES-375 sheets 1 through 9, which relate to Dresden Units 2 and 3 responses to items 1.A, B, and C.

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D. G. Eisenhut

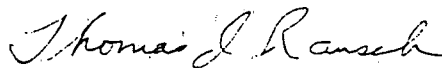
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August 3, 1981

Please address any questions concerning this matter to this office.

One (1) signed original and fifty-nine (59) copies of this transmittal are provided for your use.

Very truly yours,



Thomas J. Rausch  
Nuclear Licensing Administrator  
Boiling Water Reactors

Enclosure

cc: Region III Inspector - Dresden  
Region III Inspector - Quad Cities

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## Dresden Units 2/3

### Additional Information Request 1.A

Provide a table that lists all equipment including instrumentation and support system equipment that are required by the alternative or dedicated method of achieving and maintaining hot shutdown.

### Response

All equipment necessary for safe hot shutdown including instrumentation and support system equipment are listed in drawings ES-374 sheet 1 and ES-375 sheet 1 for Dresden Units 2 and 3, respectively. Because the method of hot shutdown is dependent upon the location of a fire within the plant, both tables list the equipment necessary for safe hot shutdown per fire zone. Logic diagrams tracing the power sources for safe hot shutdown equipment are shown on drawings ES-374 sheets 2 to 4 and ES-375 sheets 2 to 4, for Dresden 2 and 3, respectively.

### Additional Information Requests 1.B and 1.C

For each alternate shutdown equipment listed in 1.A above, provide a table that lists the essential cables (instrumentation, control, and power) that are located in the fire area.

Provide a table that lists safety related and non-safety related cables associated with the equipment and cables constituting the alternative or dedicated method of shutdown that are located in the fire area.

### Response

Essential cables (instrumentation, control, and power) for all safe shutdown related equipment are shown on drawings ES-374 sheets 5 to 13 and ES-375 sheets 5 to 9 for Dresden Units 2 and 3, respectively. All equipment necessary for safe hot shutdown is listed in the vertical column on each table. All fire zones containing safe shutdown associated circuits are listed at the top of each table. The cable numbers for every cable related to any specific piece of safe shutdown equipment are listed in the blocks to the right of each piece of equipment. Every cable is then listed under every fire zone through which it is routed. The cable identification and cable routing for every cable related to each piece of safe hot shutdown equipment can be determined by following the horizontal listing to the right of each piece of equipment. The total number of cables and cable identification found in each fire zone can be found by following the vertical listing below each listed fire zone.

Additional Information Requests 1.D and 1.E

Show that fire-induced failures of the cables listed in B and C above will not prevent operation or cause maloperation of the alternative or dedicated shutdown method.

For each cable listed in 1.B above, provide detailed electrical schematic drawings that show how each cable is isolated from the fire area.

Response

As a result of our review of safe shutdown associated circuits for Dresden Units 2 and 3, we have identified over 600 cables related to over 200 pieces of equipment in over 40 fire zones. The detailed work effort necessary to provide the information requested in items 1.D and 1.E is very large and has not been completed as yet. The information will be provided by November 15, 1981.

Additional Information Requests 2.A, B, C, D

The residual heat removal system is generally a low pressure system that interfaces with the high pressure primary coolant system. To preclude a LOCA through this interface, we require compliance with the recommendations of Branch Technical Position RSB 5-1. Thus, this interface most likely consists of two redundant and independent motor-operated valves. These two motor-operated valves and their associated cable may be subject to a single fire hazard. It is our concern that this single fire could cause the two valves to open, resulting in a fire-initiated LOCA through the subject high-low pressure system interface. To assure that this interface and other high-low pressure interfaces are adequately protected from the effects of a single fire, we require the following information:

Identify each high-low pressure interface that uses redundant electrically controlled devices (such as two series motor-operated valves) to isolate or preclude rupture of any primary coolant boundary.

Identify the device's essential cabling (power and control) and describe the cable routing (by fire area) from source to termination.

Identify each location where the identified cables are separated by less than a wall having a three-hour fire rating from cables for the redundant device.

For the areas identified in the above paragraph, provide the bases and justification as to the acceptability of the existing design or any proposed modifications.

Response

This was previously responded to in the May 19, 1981, R. F. Janecek letter to T. A. Ippolito. There are no high-to-low pressure interfaces at Dresden 2 and 3 which utilize only motor operated valves for isolation.

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