



**Consumers
Power
Company**

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May 30, 1984

Mr Harold R Denton
Office of Nuclear Reactor Regulation
Division of Licensing
US Nuclear Regulatory Commission
Washington, DC 20555

MIDLAND ENERGY CENTER PROJECT -
MIDLAND DOCKET NOS 50-329, 50-330
FIRE PROTECTION EXEMPTION REQUEST FROM
BRANCH TECHNICAL POSITION BTP-CMEB 9.5-1
FILE B9.5.1, 0505.16 SERIAL 29803

REFERENCES (1) NRC October 26, 1983 MEETING SUMMARY DATED 11/9/83
(2) NRC January 26, 1984 MEETING SUMMARY DATED 3/27/84

ENCLOSURE REQUEST FOR EXEMPTION FROM BRANCH TECHNICAL POSITION
BTP-CMEB 9.5-1 FOR CONTROL PANELS C43 AND C44

In meetings held between Consumers Power Company (CPCo) and the NRC Staff, documented in References 1 and 2, fire protection of control panels containing redundant safe shutdown components was discussed. These discussions encompassed those safe shutdown panels within the main control room, the control room peripheral rooms, and the safety-related equipment rooms. As part of the presentation of the Midland control room fire analysis, we identified that the balance of plant-engineered safety features panels, C43 and C44, contained redundant safe shutdown circuits that were susceptible to postulated fires. Recognizing the need for a positive means to protect these panels from postulated fires, we presented a brief description of a smoke detection/Halon suppression system incorporating cross-zoned smoke detection for the safety-related equipment rooms and panels C43 and C44. As previously discussed, we are requesting an exemption from Branch Technical Position BTP-CMEB 9.5-1 for control panels C43 and C44. The enclosed report provides the details of the exemption request and the corresponding smoke detection/Halon suppression system for the safety-related equipment rooms and associated C43 and C44 panels.

In order to meet the guidance of Branch Technical Position (BTP) CMEB 9.5-1, separation of redundant safe shutdown trains with no intervening combustibles, separation by rated fire barriers or electrical isolation of circuits would be necessary. However, due to cabinet construction and physical constraints, the use of fire barriers or separation of cabinets is not considered practical.

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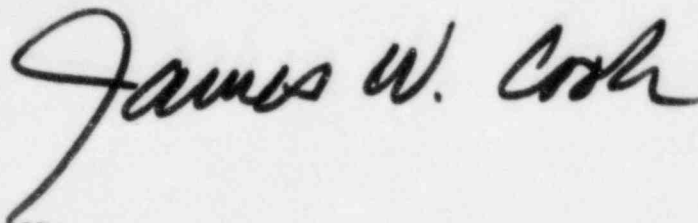
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Electrical isolation would resolve concerns associated with the output contacts of the C43 and C44 panel circuits. However, it would not address the concerns associated with the emergency core cooling actuation system sequencer, loss of offsite power sequencer and the diesel generator start logic modules. We, therefore, intend to provide a highly reliable smoke detection/Halon suppression system to protect the redundant safe shutdown equipment in the C43 and C4 cabinets.

Since the installation of a Halon system does not meet the guidelines of BTP CMEB 9.5-1, we are hereby requesting an exemption from the BTP and alternately proposing to use a smoke detection/Halon suppression system to protect the safety-related equipment rooms and associated C43 and C44 panels. The enclosed report provides the basis for our exemption request. Based on the probability of a fire in the safety-related equipment rooms and the high reliability of the smoke detection/Halon suppression system, the probability of a fire damaging both redundant trains of the C43 and C44 cabinets has been conservatively calculated to be 2.3×10^{-9} per reactor year. We, therefore, believe a fire internal or external to these panels will not compromise our ability to safely shutdown the plant.

The enclosed report and exemption request is provided for the Staff's evaluation in preparation for future meetings. In the interim, we would be pleased to discuss any aspect of the enclosed evaluation with your Staff.



JWC/CLH/RLT/bjw

CC JGKeppler, Administrator, Region III
DSHood, US NRC, Licensing Branch #4
RJCook, Midland Resident Inspector

CONSUMERS POWER COMPANY
Midland Units 1 and 2
Docket No 50-329, 50-330

Letter Serial 29803 Dated May 30, 1984

At the request of the Commission and pursuant to the Atomic Energy Act of 1954, and the Energy Reorganization Act of 1974, as amended and the Commission's Rules and Regulations thereunder, Consumers Power Company submits its exemption request to BTP CMEB 9.5-1, Section C5.6(2) for Safety Related Equipment Room cabinets C43 and C44.

CONSUMERS POWER COMPANY

By

James W. Cook
James W Cook, Vice President
Projects, Engineering and Construction

Sworn and subscribed before me this 4 day of June, 1984.

Barbara Robinson
Notary Public

Jackson County, Michigan

My Commission Expires September 8, 1984