



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

October 24, 1978

Docket Nos. 50-329
50-330

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OFFICE OF THE SECRETARY
D.C.

Mr. S. H. Howell
Vice President
Consumers Power Company
212 West Michigan Avenue
Jackson, Michigan 49201

Dear Mr. Howell:

SUBJECT: APPROVAL OF ELECTRICAL SEPARATION CRITERIA -
MIDLAND PLANT

Separation criteria and administrative procedures for installation of Class IE balance-of-plant (BOP) equipment and circuits for Midland Plant, Units 1 & 2 were previously approved by my letter of October 18, 1977. Your letter of March 30, 1978 notified us of a change affecting the implementation aspects of the criteria; i.e., you have decided to use isolation cabinets to isolate the majority of Class IE to non-Class IE circuits, and thereby reduce the need to demonstrate isolation of such circuits through analyses. Your letter also provided separation criteria for the nuclear steam supply system (NSSS) portion of the plant scope, and requested our approval of the NSSS criteria and our approval of the changes associated with the BOP criteria.

We discussed this matter with members of your staff on September 14, 1978. From this meeting and your letter we understand that the new BOP design utilizes isolation devices, located in isolation cabinets, to separate all but two Class IE circuits from non-Class IE circuits. Testing and/or analyses will be used to confirm that the isolation devices will prevent all coupling between the Class IE and the non-Class IE circuits. The two circuits which are not routed through the isolation cabinets provide Class IE inputs to the non-Class IE diesel generator synchronizing circuits. As previously approved, analyses will be utilized to demonstrate acceptable separation of these two circuits.

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Mr. S. H. Howell

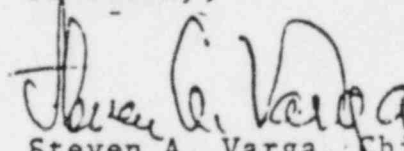
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Testing and/or analyses are acceptable methods for demonstrating adequate separation in accordance with the requirements of IEEE Std 384-1974 and the recommendations of Regulatory Guide 1.75. We find that your proposed change is consistent with the criteria specified in Amendment 32 of your PSAR which we previously approved, and we, therefore, conclude that it is acceptable. We will review the results of all tests and/or analyses as they are made available to us as part of our detailed review for operating licenses.

Your letter states that the NSSS Class IE to non-Class IE circuits will also use isolation devices. Thus, the same separation criteria applies and are acceptable for the NSSS scope. However, we further note that you classify the control rod drive control system (CRDCS) trip circuit breakers as non-Class IE. We find that these breakers are required to perform a safety function on both the input trip circuitry and the opening of the breaker contacts. The opening of the breaker contacts disconnects non-Class IE power from the non-Class IE control rod drive system. Failure of these contacts to open on demand can negate the action of the reactor trip system. Therefore, we require that these breakers be qualified to the requirements of a safety system. We discussed our position with your staff during our meeting on September 14, 1978, and they stated that documentation to support the qualification of these breakers is available and will be provided for our review. To ensure conformance, we will review the results of the qualification program, and the installation for these breakers as part of our detailed review for operating licenses.

Based upon our review of your criteria, and the oral statement that qualification data for the CRDCS trip circuit breakers to safety system requirements are available and will be provided for our review, we conclude that your separation criteria for NSSS and BOP Class IE to non-Class IE circuits are in accordance with IEEE Standard 384-1974 and the recommendations of Regulatory Guide 1.75, and are acceptable.

Sincerely,



Steven A. Varga, Chief
Light Water Reactors Branch 4
Division of Project Management

ccs: Listed on next page

Consumers Power Company

ccs:

Michael I. Miller, Esq.
Isham, Lincoln & Beale
Suite 4200
One First National Plaza
Chicago, Illinois 60670

Judd L. Bacon, Esq.
Consumers Power Company
212 West Michigan Avenue
Jackson, Michigan 49201

Mr. Paul A. Perry
Secretary
Consumers Power Company
212 W. Michigan Avenue
Jackson, Michigan 49201

Myron M. Cherry, Esq.
One IBM Plaza
Chicago, Illinois 60611

Mary Sinclair
5711 Sunnyside Drive
Midland, Michigan 48640

Frank J. Kelley, Esq.
Attorney General
State of Michigan Environmental
Protection Division
720 Law Building
Lansing, Michigan 48913

Mr. Windell Marshall
Route 10
Midland, Michigan 48640

Office of the Secretary
Docketing & Service Section
USNRC
Washington, DC 20555

Marshall E. Miller, Esq.
Atomic Safety and Licensing Board
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Dr. J. Venn Leeds, Jr.
Atomic Safety and Licensing Board
10807 Atwell
Houston, Texas 77096

Dr. Emmeth A. Luebke
Atomic Safety and Licensing Board
U.S. Nuclear Regulatory Commission
Washington, DC 20555