

U.S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

REGION III

Report No. 50-255/81-04

Docket No. 50-255

License No. DPR-20

Licensee: Consumers Power Company
212 West Michigan Avenue
Jackson, MI 49201

Facility Name: Palisades Nuclear Generating Plant

Management Meeting At: Region III Office - Glen Ellyn, IL

Management Meeting Conducted: March 18, 1981

Report Prepared By: *D.C. Boyd*
D. C. Boyd, Chief
Reactor Projects Section 1A

3-31-81

Approved By: *R.C. Knopf*
R. F. Heishman, Acting Director
Division of Resident and Project
Inspection

4-7-81

Management Meeting Summary

Management Meeting on March 18, 1981 (Report No. 50-255/81-04)

Areas Discussed: A special meeting, requested by the licensee, was held to review and discuss the Consumers Power Company review and evaluation of possible consequences of the January 6, 1981, mispositioned 125 volt battery bank output breakers event. Consumer Power Company's evaluation of the consequences of three specific items were reviewed. These were: reactor trip at full power; turbine trip at full power; and the loss of off-site power (R-bus) at full power. Consumers Power Company also provided updated information on the status of key items addressed in the Confirmatory Order of March 9, 1981.

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DETAILS

1. Attendance

Consumers Power Company Attendees (CPCo)

R. B. DeWitt, Vice President, Nuclear Operations
F. W. Buckman, Director of Nuclear Activities
D. P. Hoffman, Nuclear Licensing Administrator
K. Berry, Staff Engineer, Nuclear Services
W. P. Waudby, Senior Engineer, Systems Protection
D. M. Kennedy, General Engineer, Palisades

IE Attendees

A. B. Davis, Deputy Director, Region III
R. F. Heishman, Acting Director, Division of Resident and Project
Inspection
R. C. Knop, Chief, Projects Branch 1
D. C. Boyd, Chief, Reactor Projects Section 1A
K. R. Baker, Chief, Management Programs Section
J. F. Streeter, Acting Director, Enforcement and Investigation Staff
W. H. Schultz, Acting, Enforcement Coordinator
C. Braund, Inspector Assistant

2. Introductory Statement by the Deputy Director, Region III

The Consumers Power Company formal presentation was preceded by an introductory statement by Mr. Davis, Deputy Director of Region III, in which he summarized the Nuclear Regulatory Commission's current understanding and assessment of the January 6, 1981, battery breaker misalignment event. Mr. Davis stated that the NRC assessment is that the limiting condition for operation of the facility Technical Specification 3.7.2 was violated such that the safety function of the 125 volt batteries was lost for approximately one hour in that the batteries, in the event of the loss of off-site power, were incapable of performing their safety function in the absence of operator action. He stated that the NRC considers this to be a violation of Severity Level III.

3. Licensee's Presentation

The licensee stated that the purpose for requesting this meeting was to assure that the NRC was provided with all of the information regarding the January 6, 1981, event and specifically, to assure that the NRC was aware of the details and conclusions resulting from Consumers Power Company's Evaluation of the possible consequences of this breaker misalignment event.

The licensee stated that they had performed analyses for three specific events, each of which was assumed to have been initiated with the reactor operating at full power and supplying its own house load (normal configuration). These events were; (1) reactor trip; (2) turbine trip; and (3) loss of off-site power (loss of R-bus). The Consumers Power Company personnel involved in these analyses were present and participated in the presentation. They identified the circuits involved, discussed the relays, relay decay times, fast-transfer times, inverter and battery charger carry over times, and total system response. The Consumers Power Company analysis for items 1 and 2 above (reactor trip and turbine trip) concluded that there was no safety issue since the fast transfer relaying in both cases functioned quickly enough to transfer the house load to offsite power (R-bus) without power interruption. However, in the case of the loss of off-site power (R-bus), there would be a safety problem since manual operator action would be required to provide emergency power (diesel generators) to the emergency buses. In this event, loss of offsite power, the analysis established that the emergency diesels would automatically start but would not automatically close onto the emergency buses and that the emergency loads would not be automatically sequenced onto the buses. Thus, operator action would be required to manually close the diesel generators onto the buses and manual action would be required to start the load sequencer. The licensee expressed confidence that these manual actions would be completed quickly (within seconds) since the licensed operators are specifically trained to recognize and correct these types of events. The Consumers Power Company analysis established that the control room operators would be immediately aware of their status as follows:

All normal lighting would be lost, only the battery-pac emergency lights would be on.

Due to the immediate proximity of the diesel generators to the control room, the operators would hear and feel the emergency generators start.

Most control room annunciators and system status lights would be lost, except for the emergency safeguards systems. These would clearly indicate that the diesel generator breakers to the emergency buses were not closed, and would also show, once they were closed, that no emergency loads were automatically started.

Thus, the Consumers Power Company analysis concludes that trained and licensed operators would have clear indication of the problem and would quickly recognize and correct the situation.

The licensee pointed out that the loss of off-site power is a low probability event. The plant has not experienced any loss of off-site power events since a circuitry modification was made in 1977.

The licensee also provided updated information on the status of items addressed in the March 9, 1981 Confirmatory Order and indicated that it was their intent to provide this updated information on a monthly basis.

The licensee indicated that they would probably have a detailed plan of action, as required in the Confirmatory Order, ready to discuss with the NRC during the week of March 23, 1981.