



**Wisconsin
Electric**
POWER COMPANY

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VPNPD-90-505
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10 CFR 2.201

December 27, 1990

Document Control Desk
U. S. NUCLEAR REGULATORY COMMISSION
Mail Station P1-137
Washington, DC 20555

Gentlemen:

DOCKETS 50-266 AND 50-301
RESPONSE TO NOTICE OF VIOLATION EA NO. 90-159
ELECTRICAL DISTRIBUTION SYSTEM FUNCTIONAL INSPECTION
POINT BEACH NUCLEAR PLANT UNITS 1 AND 2

On November 30, 1990, the Nuclear Regulatory Commission issued a Notice of Violation for Inspection Reports No. 50-266/90201, 50-301/90201; and 50-266/90018(DRS), 50-301/90018(DRS). This notice and the referenced reports were a result of the special Electrical Distribution System Functional Inspection (EDSFI) conducted by the NRC at the Point Beach Nuclear Plant during March and April 1990 and the follow-up inspection conducted by the NRC Region III staff in August 1990. On October 4, 1990, an enforcement conference was held in the Region III offices concerning these inspections and the apparent violations of NRC requirements identified in the inspection reports.

Pursuant to the provisions of 10 CFR 2.201, Wisconsin Electric Power Company is providing this letter in response to this Notice of Violation. We have addressed each of the three specific violations in the attachment to this letter and included a statement regarding the corrective actions taken to resolve the discrepancies, preclude further violations, and the date when full compliance will be achieved. We have concluded that each of the three issues discussed in this notice were appropriately characterized as violations and accorded the appropriate severity level.

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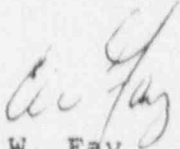
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Please contact us if you have any questions concerning the information provided with this letter. We appreciate the opportunity to respond to these issues and thank you for the time you have taken to inspect our facility.

Very truly yours,



C. W. Fay
Vice President
Nuclear Power

Copy to: Regional Administrator, Region III
NRC Resident Inspector, Point Beach

**REPLY TO A NOTICE OF VIOLATION
POINT BEACH NUCLEAR PLANT**

- A. 10 CFR 50, Appendix B, Criterion III, "Design Control" requires, in part that measures be established to assure that applicable regulatory requirements and the design basis are correctly translated into specifications, drawings, procedures, and instructions. Contrary to this, the design basis was not properly translated in that:
1. As of March 31, 1990, the design basis for the licensee's emergency diesel generator (EDG) loading capacity, as described in Calculation No. 0870-103-011, did not reflect the actual loads that the EDGs would be subject to during the use of the plant's emergency procedures.
 2. Since May 26, 1988 for Unit 1 and October 13, 1988 for Unit 2 until April 6, 1990, there existed the potential for the safety-related bus undervoltage relays to be damaged during a seismic event by movement of the 4.16 kV breakers. This could have prevented the automatic closure of the G01 EDG output breaker. This was due to the failure of the licensee to adequately address the seismic implications of the 4.16 kV tie breakers in their racked out position.

Response: We acknowledge and accept this violation. We will first address our corrective actions for the two specific examples cited then summarize some of the initiatives we have taken to better define our design bases and implementation of design controls. These items were also discussed during our enforcement conference on October 4, 1990.

Concerning the first example the need for a revised EDG loading analysis was self-identified by our staff in early 1988. A consultant was contracted to create a formal EDG loading calculation and to conduct an evaluation of which electrical loads would be added or removed from the generators by operator action. Revision 0 of this calculation was issued on March 31, 1990, and showed a worst case loading of approximately 99% of the EDG 200 hour load rating. This evaluation did not include the load resulting from the operation of an accident fan in the non-affected unit but did include the manual addition of several auxiliary building ventilation loads which are not required to mitigate the accident or shutdown the non-affected unit. Subsequent to the EDSFI this calculation, 0870-103-011, was revised to include the accident fan in the non-affected unit and to remove the several non-essential auxiliary building ventilation fans from the EDG loading. These changes resulted in a maximum EDG loading of 2918 KW or 98.5% of the 200 hour rating.

As a result of the EDSFI inspector's concerns, two separate detailed walkdowns of the plant Emergency Operating Procedures

(EOPs) were conducted by staff engineers, plant operators, and shift superintendents in April 1990 to verify the acceptability of the EDG loading and revise the guidance provided to the operator concerning EDG loading. These reviews confirmed that the EOP as written would not result in the overloading of the diesels. The walkdowns also identified the need for more specific guidance to the operators for EDG load management. Several revisions to the EOPs were identified which improved the details of the guidance provided for the operators and revised the load tables in the procedures. These revisions have been completed. Training has been conducted for all licensed operators and Duty Technical Advisors to clarify the concepts of EDG load management using the EOPs. We are now in compliance with this item.

In the second example cited, after the inspection team identified this concern, the 4.16 kV tie breakers were physically removed from the breaker cubicle and placed in storage outside the safe shutdown area. The breakers were originally racked out in response to single failure concerns identified in a 1987 vendor 10 CFR Part 21 notification and a related NRC Information Notice, 87-16. The modification requests which approved the breaker rackout included a final design verification in accordance with our quality procedure QP 3.1; however, this review did not include an evaluation of the seismic acceptability of the breakers in the racked out position. Our subsequent evaluation indicates that only the GO1 EDG output breaker could potentially have been affected by relay damage during a postulated seismic event. We are now in full compliance.

At the enforcement conference we also discussed a number of other issues and the initiatives which Wisconsin Electric is taking to address these items. We believe these efforts will also serve as corrective steps to help avoid further violations of this nature. These efforts include:

- A multi-year project to reconstitute and validate the design basis for the Point Beach Nuclear Plant.
- The recent appointment of a Safety Evaluation Group in our corporate nuclear engineering office to improve the consistency of our safety evaluations.
- Continued reevaluation of systems for proper safety classification and upgrading of designated systems to safety-related status.
- A continuing program of self-initiated SSFI-type and Vertical Slice audits to verify system design, functionality, and operation.
- Significant staffing additions to permit us to address identified issues on a more timely basis.

- B. Technical Specification 15.6.8 and 10 CFR Part 50, Appendix B, Criterion V, require, in part, that activities affecting quality be prescribed by appropriate documented instructions, procedures, or drawings. Contrary to the above, since installation of the inverters in 1988 until April 1990, the licensee failed to include in an approved procedure the calibration of the Elgar inverter undervoltage trip function.

Response: We acknowledge and accept this violation. Six Elgar inverters were installed in 1984 to provide uninterrupted power supplies for the third and fourth Point Beach instrumentation channels. The EDSFI team was concerned that a feature on these inverters, whereby the inverter shuts down should the DC input voltage fall below a pre-set value, could result in the inverters shutting down prior to the one hour design capacity of the station batteries being reached. Although the application of these inverters at Point Beach requires no such protection, we verified in contacts with the manufacturer that the Point Beach inverters were provided with this feature with a factory pre-set voltage of 105 VDC. Our startup and subsequent surveillance of these inverters had not included calibration of this feature. This was an oversight on our part.

Each of the six inverters was tested to determine the as-found setting of this cutoff feature. Inverter 1DY03 was found to have a setting of 110.83 VDC and the other five inverters were found to have setting below 105 VDC. The inverters were all calibrated and adjusted to a DC voltage cutoff of approximately 100 VDC. Routine Maintenance Procedure RMP 45 has been revised to include calibration of the low voltage cutoff feature on a periodic basis. We are also evaluating other features of the station battery chargers and inverters to determine if there is a need for additional periodic surveillance of the features and their associated settings. This evaluation is expected to be completed in February 1991. At that time we should be in complete compliance.

- C. 10 CFR 50 Appendix B, Criterion II, requires, in part, that the quality assurance program shall provide control over activities affecting the quality of structures, systems, and equipment consistent with their importance to safety. Contrary to this, as of April 6, 1990, the licensee's quality assurance program failed to provide control over the calibration of safety-related protective relays which are not addressed in the technical specifications.

Response: We acknowledge and accept this violation. Upon identification of this issue by the EDSFI team, Wisconsin Electric personnel immediately issued a stop-work order on the safety-related relay calibrations for Unit 1 which were in progress at that time. A non-conformance report was initiated. Our review of the existing conditions verified that certain quality assurance controls were not being adequately implemented and that additional actions were necessary to allow continuation of the work. We subsequently reviewed and established setting tolerances for all the Unit 1 safety-related relays not included in the Technical Specifications. We also reviewed the existing work procedures and the calibration status of the test equipment in use. Acceptably calibrated test equipment was identified and subsequently used to complete the relay calibrations. We evaluated the past usage of spare parts for relay repairs and determined that the one instance of relay part replacement by non-qualified personnel was acceptable since the relay itself was later replaced.

Prior to conducting the Unit 2 relay calibrations this fall, the following actions were also completed. We formally verified the Unit 2 relay setpoints and compared them to the PBNP setpoint document. Work procedures for safety-related non-technical specification relays were developed and approved. Quality assurance indoctrination was provided to the personnel involved in the protective relay calibration program. Surveillance by QA Section personnel of the relay calibrations was performed during the Unit 2 refueling outage. No additional problems with the calibration program were identified. The last step in our corrective action is to formalize the calibration program for the test equipment used for these relay calibrations. This will be done by February 1, 1991, at which time we should be in full compliance.