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NRC-92-032

March 9, 1992

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

Gentlemen:

DOCKETS 50-266 AND 50-301
REPLY TO NOTICE OF VIOLATION
INSPECTION REPORTS 50-266/92004(DRP); 50-301/92004(DRP)
POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

Your letter of February 14, 1992, transmitted the referenced Inspection Report. The Report contained one Severity Level IV violation. This violation cited nonconformance to 10 CFR 50, Appendix B, Criterion X, which requires that inspections of activities affecting quality be executed to verify conformance with procedures. Contrary to this, on January 20, 1992, during post-modification testing, a jumper wire specified in the procedure was inadvertently installed in the adjacent cubicle, and activities performed to verify the installation did not conform to procedural requirements. We agree that the event occurred as described in the Notice of Violation. The violation was appropriately characterized as Severity Level IV.

The jumper was installed in order to perform post-modification testing following a modification to a 4160 volt tie breaker. The improper installation of this jumper caused the deenergization of 1B03, a 480 volt safeguards bus. This resulted in a loss of power to 1Y06, a 120 volt instrument bus that supplies power to the rod position circuitry. This loss of power caused the actuation of the rod bottom bistables, which initiated a 20% turbine runback. Licensee Event Report 92-001-00, "Turbine Runback Caused by Improper Post-Maintenance Testing," dated February 18, 1992, provides a more detailed discussion of this event.

After the event, a review was conducted. The cause of the deenergization of 1B03 and the resultant turbine runback have been attributed to the improper installation of the jumper by the

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two personnel performing the post-maintenance testing. This review also revealed that independent verification of the jumper installation was also improperly performed.

As a result of this determination, the maintenance electricians were formally counseled by their supervisor. Topics discussed included proper jumpering requirements, procedural compliance, and the proper method for performing independent verification of jumper installation. The maintenance supervisor also held a meeting with all the maintenance electricians in his work group. During this meeting, the significant portions of the event and proper maintenance practices were discussed. Similar discussions have also taken place in other plant work groups.

Additionally, on January 23, 1992, the Manager of Maintenance and Engineering issued a memorandum (PBM 92-0068) to all plant maintenance and engineering personnel. This memorandum described the event and discussed the significant lessons to be learned from the event.

The maintenance supervisor also recognized that a more thorough pre-job briefing and more job supervision could have helped prevent this event from occurring. He, therefore, directed the performance of more thorough pre-job briefings and increased job supervision within his group.

In addition to these immediate corrective measures, a plant working group was established to determine measures that should be taken to prevent recurrence of similar events. This working group is comprised of personnel from Instrumentation and Control, electrical maintenance, and mechanical maintenance. They have determined that the independent verification system currently used by plant personnel may not be adequate for some maintenance applications.

The working group has recommended the implementation of a concurrent verification system similar to the system discussed in the Institute of Nuclear Power Operations (INPO) Good Practices. The group's recommendation will be added to the revised Point Beach Nuclear Plant "Writer's Guide for Maintenance Procedures" and will provide guidance concerning the incorporation of concurrent verification in maintenance procedures. This revision is expected to be implemented by June 30, 1992. Additionally, a revision is also being made to Design Guideline G02, "Guideline for the Preparation of an Installation Work Plan for PBNP Modifications." This revision will incorporate information concerning human factors issues that are contained in the

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"Writer's Guide for Maintenance Procedures." This additional information will provide guidance for personnel preparing Installation Work Plans. This revision will be implemented by September 30, 1992.

Finally, a review of the actual procedure used for the modification was performed. The procedure was found to be accurate in that it correctly described the cubicle and terminal points for jumper installation. However, while accurate, the procedure could have supplied more information with regard to the location for the jumper installation. To address this concern, a revision will be made to the "Writer's Guide for Maintenance Procedures" that will provide guidance to ensure that maintenance procedures are written to require a complete description of the location for jumper installation. The Writer's Guide will require that a description of jumper location include the identification of the actual wires associated with each terminal point. This revision will be implemented by June 30, 1992.

Please contact us if there are any questions.

Sincerely,



James J. Zach
Vice President
Nuclear Power

Copies to NRC Regional Administrator, Region III
NRC Resident Inspector