August 2, 1984

Mr. H. R. Derton, Director Office of Nuclear Reactor Regulation U. S. NUCLEAR REGULATORY COMMISSION Washington, D. C. 20555

Attention: Mr. J. R. Miller, Chief

Operating Reactors, Branch 3

Gentlemen:

DOCKET NOS. 50-266 AND 50-301
ENVIRONMENTAL QUALIFICATION OF
PRESSURIZER SAFETY VALVE DIRECT POSITION INDICATORS
AND INCORE THERMOCOUPLE CONNECTORS
POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

This letter will inform you of the current status of the environmental qualification (EQ) program for the Crosby lift indicating switch assemblies (LISAs), which will be installed on our Unit 1 and 2 pressurizer safety valves, and the Veam thermocouple connectors, which are being installed on the Unit 1 and 2 Incore Thermocouple Systems. This letter also requests an extension of the EQ deadline to June 7, 1985 for the LISAs and the thermocouple connectors pursuant to paragraph (g) of the NRC rule 10 CFR 50.49. The current EQ deadlines for the LISAs were established in Mr. H. R. Denton's letter to Mr. S. Burstein dated January 3, 1984 as November 2, 1984 for Unit 2 and May 24, 1985 for Unit 1. The current EQ deadline for the thermocouple connectors is November 2, 1584 for both Units.

Due to continued problems in qualifying the LISAs using the original electrical interface method and the fact that the original interface method could have caused delays in disconnecting the LISAs during safety valve testing every refueling, we have revised the electrical interface design. Unlike the original method, the new design uses previously qualified sealed components (i.e., flexible conduit and connectors) which would prevent steam and chemical spray from coming in contact with the LISA electrical components. This new design greatly increases our confidence that the LISAs will be qualified. A new LISA test specimen using the new interface design has been assembled by Crosby for qualification testing. The qualification test program using the new specimen is expected to begin in July, 1984 with completion of testing expected by the end of 1984.

This means that we will be unable complete the qualification documentation for the LISAs by the current Unit 2 deadline of November 2, 1984. In your letter of January 3, 1984, you concurred with our decision not to install the Crosby LISAs prior to resolution of the qualification test difficulties. However, with the added assurance of qualification given by the new sealed interface design, we intend to install the unqualified Crosby LISAs in Unit 2 during the fall 1984 outage. We still intend to install the qualified LISAs on Unit 1 during the spring 1985 refueling outage. Our review of the Crosby test report and the plant-specific qualification documentation are expected to be completed by June 7, 1984, the scheduled end of the next refueling outage for Unit 1.

In a related matter, the Incore Thermocouple Systems at Point Beach Units 1 and 2 are being upgraded by replacing the connectors at the reactor vessel head and all cabling from the connectors to the computer room with qualified components, and by relocating the reference junction boxes to a mild environment. These modifications were completed on Unit 1 during the steam generator replacement outage which ended this past April and are planned on Unit 2 during a refueling outage scheduled to begin September 28, 1984. The seismic qualification tests of the connectors have been completed successfully. However, the environmental qualification tests of the Veam thermocouple connectors were recently halted prior to LOCA testing because the test cable being used for the electrical interface to the test specimens appeared to have been damaged by overaging during the preconditioning tests. In order to prevent the damaged cable from jeopardizing the environmental qualification of the connectors, we decided to restart the environmental qualification testing using new connector cable specimens and a revised test plan which minimizes the cable damage during aging. The new specimen must now undergo the entire sequence of qualification tests including thermal aging and irradiation. The new qualification tests are scheduled to be completed in January 1985 with a final test report to be issued in approximately March 1985. The review of the test report and plantspecific documentation of qualification are expected to be completed by June 7, 1985.

A new method for installing the connectors on the mineral-insulated (MI) thermocouple cable, which exits through the reactor vessel head, is being used for Unit 2. This installation method adds epoxy to the open end of the MI cable after preparing the conductors for actual connector installation. The Unit 1 installation method did not use epoxy for this connector and may be susceptible to moisture intrusion. The new qualification program includes connectors both with and without the epoxy. If the connector without the epoxy fails the qualification test and the connector with the epoxy passes, the Unit 1 connectors will have to be reworked during the next Unit 1 refueling outage.

We therefore request that the EQ deadline for the Unit 1 and Unit 2 LISAs and Incore Thermocouple connectors be extended to coincide with the revised scheduled end of the next Unit 1 refueling outage, i.e., June 7, 1985, in accordance with the provisions of 10 CFR 50.49(q). We believe that this request is timely in that we were only recently advised of the qualification program completion schedule for both the Crosby LISAs and Veam connectors. We believe that this request shows good cause because test program difficulties have been directly related to the method of installation for the LISAs and because of actual test complications for the thermocouple connectors.

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We would be pleased to answer any questions you may have regarding this information or these requests for extension of the environmental qualification deadline.

Very truly yours,

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R. W. Britt

RWB/cj

Copy to NRC Resident Inspector