



Point Beach Nuclear Plant
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NPL 98-0880

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

Ladies/Gentlemen:

DOCKETS 50-266 AND 50-301
FIRE ALARM CONTROL PANELS INOPERABLE
FOR MORE THAN FOURTEEN DAYS
POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

Enclosed is a special report for Point Beach Nuclear Plant (PBNP), Unit 1 and Unit 2. This report is provided in accordance with the PBNP Fire Protection Evaluation Report (FPER), Section 7.2.2.5. This section requires the submittal of a special report if fire detection system components for areas listed in Table 7.2-2 of the FPER are inoperable for more than 14 days. This report describes the inoperability of Fire Control Panels D-401 from September 13 to October 2, 1998 and D-405 being inoperable from September 23, 1998 to October 9, 1998. Compensatory measures were implemented in accordance with fire protection program requirements during the time these control panels were determined to be inoperable.

No new commitments are established in this report.

If you have any questions, please contact us.

Sincerely,

Vito A. Kaminskas
Manager,
Regulatory Services & Licensing

CWK/dms

Attachment

cc: NRC Resident Inspector
NRC Regional Administrator

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This report is submitted in accordance with the PBNP Fire Protection Evaluation Report (FPER) Section 7.2.2.5, "Reportability," which requires a special report when specified fire protection features or equipment are inoperable in excess of program requirements. As required, this report includes a description of action(s) taken, the cause of the inoperability, and the plans and schedule for restoring the system to operable status.

Fire Alarm Control Panel D-401

Description

The approved fire protection program described in the PBNP FPER requires that the fire detection system components for each area listed in Table 7.2-2, "Safe Shutdown Area Fire Protection," shall be operable whenever equipment protected by the fire detection components is required to be operable. On September 13, 1998, Fire Alarm Control Panel D-401, which includes fire detection and smoke detection coverage for the lower elevations of the PBNP Auxiliary Building, was placed in disconnect and declared inoperable due to unexpected and spurious alarms. The D-401 panel was generating false fire alarm signals on multiple smoke detectors. This condition persisted after reset of the panel. A condition report was initiated and a work order request written to troubleshoot and repair the panel.

Actions Taken

In accordance with FPER 7.2.2.3.B.1.c, appropriate compensatory measures, including hourly fire watch inspections, were initiated and continued while the D-401 panel was out of service. On September 14, 1998, the system engineer inspected the panel and observed that the 12 volt batteries that provide backup power for the panel were only 5 amp-hour capacity. The correct batteries for this application are 15 amp-hour capacity. New batteries were ordered. Pending the receipt and installation of the batteries, additional troubleshooting was deferred. New batteries were received about September 30, 1998, and installed. Following installation and post maintenance testing, the panel was returned to service on October 2, 1998. The problems with spurious alarms as described above has not recurred since the panel was returned to service. Since this period of inoperability exceeded 14 days, this special report was prepared.

Cause of the Inoperability

Troubleshooting of the D-401 panel following installation of the replacement batteries revealed no apparent cause for the spurious alarms.

Plan and Schedule for Restoration

As discussed above, fire control panel D-401 was restored to an operable status on October 2, 1998.

FIRE CONTROL PANEL D-405

Description

The approved fire protection program described in the PBNP FPER requires that the fire detection system components for each area listed in Table 7.2-2, "Safe Shutdown Area Fire Protection," shall be operable whenever equipment protected by the fire detection components is required to be operable. On September 23, 1998, Fire Alarm Control Panel D-405, which includes fire detection and smoke detection coverage for the G01 and G02 Emergency Diesel Generator rooms, the vital switchgear room, and the air compressor room fire alarm control panel was placed in disconnect and declared inoperable due to unexpected and spurious trouble supervisory alarms. The spurious alarms were manifested by intermittent flashing of the red "alarm silenced" and yellow "active trouble" LED's. Work Order 9815158 was written to troubleshoot and repair the panel.

Actions Taken

In accordance with FPER 7.2.2.3.B.1.c, appropriate compensatory measures, including hourly fire watch inspections, were initiated and continued while the D-405 panel was out of service. Troubleshooting of this panel by electrical maintenance personnel was initiated in accordance with the work order. Because the trouble supervisory alarms on this panel have been spurious and intermittent, effective troubleshooting was difficult. Circuit problems cannot be identified unless the alarms are in. The panel backup batteries were replaced after it was determined that the installed batteries were not holding a charge. Following battery replacement and post maintenance testing, the panel was returned to service on October 9, 1998. Since this period of inoperability exceeded 14 days, this special report was prepared.

Cause of the Inoperability

The installed batteries were not holding a charge and causing the power supply to deliver excessive charging current. It is postulated that this battery condition caused a drop in system DC voltage which, in turn, caused the spurious trouble indications. Troubleshooting of the D-405 panel subsequent to the battery replacement revealed no other apparent cause for the spurious and intermittent alarms.

Plan and Schedule for Restoration

As discussed above, fire control panel D-405 was restored to an operable status on October 9, 1998.