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DOCKET NUMBER: NP 50-275/323

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DESCRIPTION

Furnishing additional information concerning review of the temperature monitoring and recording system proposed for balance-of-plant electrical eqqipment... w/att description of the proposed system supplementing information dubmitted in Amend. No. 55...

1p + 3p

ENCLOSURE

PLANT NAME: DIABLO CANYON UNITS 1 & 2

jvm 12/07/77

10 ENCL ✱/REPOD BALANE

FOR ACTION/INFORMATION

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December 5, 1977

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U.S. NUCLEAR REGULATORY COMMISSION
Mail Section

Mr. John F. Stolz, Chief
Light Water Reactors Branch No. 1
Division of Project Management
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Re: Docket No. 50-275-OL
Docket No. 50-323-OL
Diablo Canyon Units 1 & 2

Dear Mr. Stolz:

In support of our operating license application this letter and Attachment A provide additional information to the Staff for its review of the temperature monitoring and recording system proposed for balance-of-plant electrical equipment. The description of the proposed system in Attachment A supplements information submitted in Amendment No. 55.

The following procedures will also be instituted for the system:

1. Complete time history records of overtemperature occurrences will be maintained.

2. Each such occurrence will be reported.

3. An evaluation will be provided for each such occurrence to demonstrate the continued acceptability of the affected equipment.

This system, as described, will be installed and operational prior to loading fuel and a statement to this effect will be added to the FSAR. All components utilized in the temperature monitoring system will be of high quality, with power supplied from a reliable, safety-grade bus. The system will be capable of being tested at various points including the sensor and the plant operator alarm.

Very truly yours,

Philip A. Crane, Jr.

Enclosures (10)
CC w/enc.: Service List

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ATTACHMENT A

TEMPERATURE MONITORING SYSTEM FOR ELECTRICAL EQUIPMENT

A temperature monitoring system shall be installed which shall measure the ambient air temperature in spaces containing Class I electrical equipment. The monitoring system shall sense the ambient air temperature and alert the plant operator if it exceeds some preset value. This value shall be based on the operating limits of the equipment.

In addition to providing a high temperature alarm, the monitoring system shall periodically record (at approximately 5-minute intervals) the ambient temperature of any and all spaces where the temperature exceeds the present value mentioned above.

Due to limited space in the main control room, the recorders will be mounted remotely. The recorder for the pump rooms will be located adjacent to the auxiliary building control board. This location is nearly always attended and is located nearer the pump rooms than the control room.

The recorder for the electrical equipment spaces will be located in the cable spreading room, which is just below the control room. This location is between the control room and the majority of the electrical equipment spaces.

The criteria for monitoring air temperature are given below:

(1) Where only one class 1E redundant train or division of safety related balance of plant electrical equipment is in a given room or area and the ventilation there is neither redundant nor class 1E, the ambient air temperature monitoring system will be redundant and of a grade meeting class 1E criteria of supply and separation.

(2) Where only one class 1E redundant train or division is in a given room or area and the ventilation is class 1E, but is not redundant within the area, then one temperature monitor of a grade meeting class 1E criteria of supply and separation will be placed in the area.

(3) Where one or more class 1E redundant trains or divisions are in a given room or area and the ventilation is class 1E and redundant, then one non-redundant temperature monitor will be supplied.

Temperature monitors shall be arranged as follows:

Monitor/Recorder A (In Cable Spreading Room)	Monitor/Recorder B (At auxiliary building control board)
480V bus F	RHR Pump 11
480V bus G	RHR Pump 12
480V bus H	Spray Pumps
Battery Room 11	Charging Pumps 11 & 12
Battery Room 12	Charging Pump 13
Battery Room 13	CCW Pump 11
DC Equipment Room 11	CCW Pump 12
DC Equipment Room 12	CCW Pump 13
DC Equipment Room 13	SI Pump 11
Diesel Generator 11	SI Pump 12
Diesel Generator 12	Aux. F.W. Pumps
Diesel Generator 13	Battery Room 11
4kV bus F	Battery Room 12
4kV bus G	Battery Room 13
4kV bus H	Cable Spreading Room
Cable Spreading Room	

The Auxiliary Salt Water Pumps shall have individual thermostatically controlled recorders.

The monitoring system is not Design Class I, however, high quality components shall be utilized. The system will be testable. In addition, quality assurance procedures shall be employed in design, procurement and installation. All conductors shall be routed in seismically qualified raceways. Circuit routing shall be verified using existing computer checks. Installation data shall be returned to engineering for record keeping.