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January 4, 1979

1/4/79

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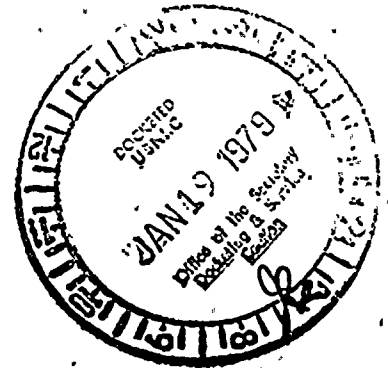
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Mr. John F. Stolz, Chief
Light Water Reactors Branch No. 1
Division of Project Management
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

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



Dear Mr. Stolz:

The enclosed information concerns procedures for seismic retesting of Class IE electrical equipment. This information is being supplied at your request for Staff review prior to equipment retesting.

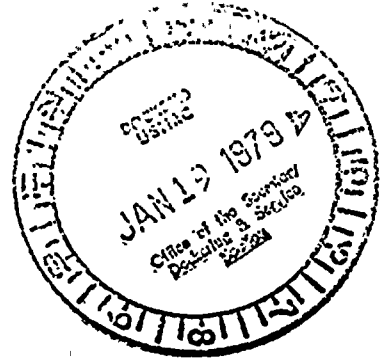
Kindly acknowledge receipt of the above material on the enclosed copy of this letter and return it to me in the enclosed addressed envelope.

Very truly yours,

Philip A. Crane, Jr.

Enclosures
CC w/enc.: Service List

PACIFIC GAS AND ELECTRIC COMPANY
SAN FRANCISCO, CALIFORNIA
ELECTRICAL ENGINEERING DEPARTMENT



SEISMIC TEST PROCEDURE
FOR
DIABLO CANYON
FAN COOLER MOTOR CONTROLLER

DATE: January 4, 1979

APPROVED BY:

R. A. Young *R. A. Young*
J. E. Herbst *J. E. Herbst*
D. Nielsen *D. Nielsen*
J. W. Colwell *J. W. Colwell*

TEST PROCEDURE

Fan Cooler Motor Controller

1. Description of Equipment

The Fan Cooler Motor Controller is a two speed circuit breaker type combination motor controller. The complete controller is an integral part of the Vital Load Center described in Diablo Canyon FSAR Section 10.3.26. High and low speed contactors are NEMA size 6 and 5 respectively. The equipment is mounted in full height section of the Vital Load Center. There are five controllers, each for Units 1 and 2 of the Diablo Canyon Power Plant, two on Bus F, two on Bus G and one on Bus H. The controllers of Unit 2 are arranged differently because of the use of newer components. However, electrically they are alike. For that reason, one typical controller of Unit 1 and one typical controller of Unit 2 will be tested. In addition, the Unit 1 controller will also be tested with a replacement contactor.

2. Test Criteria and Plan

The typical Unit 1 and Unit 2 Fan Cooler Motor Controllers had been tested earlier to demonstrate that they are free of chatter, do not sustain physical damage during seismic events and perform satisfactorily after seismic events. Refer to Diablo Canyon FSAR Section 10.3.25B.

The criteria of this test is to demonstrate that the controllers change state on command during seismic events. No inadvertant operation of the controllers must occur and the main contacts shall not chatter during the shake.

The plan for this supplemental testing is to subject the two Fan Cooler Motor Controllers to three SSE test runs each in the front to back and side to side orientation of the equipment. The seismic requirements are the same as for the earlier testing and are defined in WYLE's Test Procedure No. 3642 dated November 30, 1977.

3. Test Procedure and Set-Up

The Fan Cooler Motor Controllers shall be mounted on test fixtures described in WYLE's Test Procedure No. 3642, Figure 29, dated November 30, 1977, thus simulating their actual mounting in the vital load centers and their mounting during the earlier testing.

Single phase 480V shall be connected to control circuitry as shown on Attachment "A". Wires between the circuit breakers and fuses must be lifted. The circuit breaker 52-2G-1 shall be closed throughout the test series. The controller main contacts shall be monitored on a direct readout recorder for chatter and change of state. The second

pole of switches S1 and S2 shall also be monitored thus indicating a command causing the change of state of the controller main contacts. The low speed motor starter auxiliary relay 42X-2G-1 shall be set for three (3) seconds time delay. This will permit the demonstration of its delay function during the test sequences.

In addition to the contact monitoring described above, the vertical and horizontal time histories of the shake table and time traces shall be recorded.

The test sequences shall be conducted as follows:

Check and document the timing of relay 42X-2G-1 by closing of switch S2 and monitoring the operation of contactor 42-2G-1.

Front to Back orientation -

SSE 1 Switch S1 closed, high speed contactor closed, low speed contactor open.

SSE 2 Switch S2 closed, low speed contactor closed.

SSE 3 Switch S1 to close after 10 seconds into the run.
Switch S2 to close after 15 seconds into the run.
Open Switch S1 and then S2 after 22 seconds into the run.

Install replacement contactor on the Unit 1 controller and repeat the test sequences.

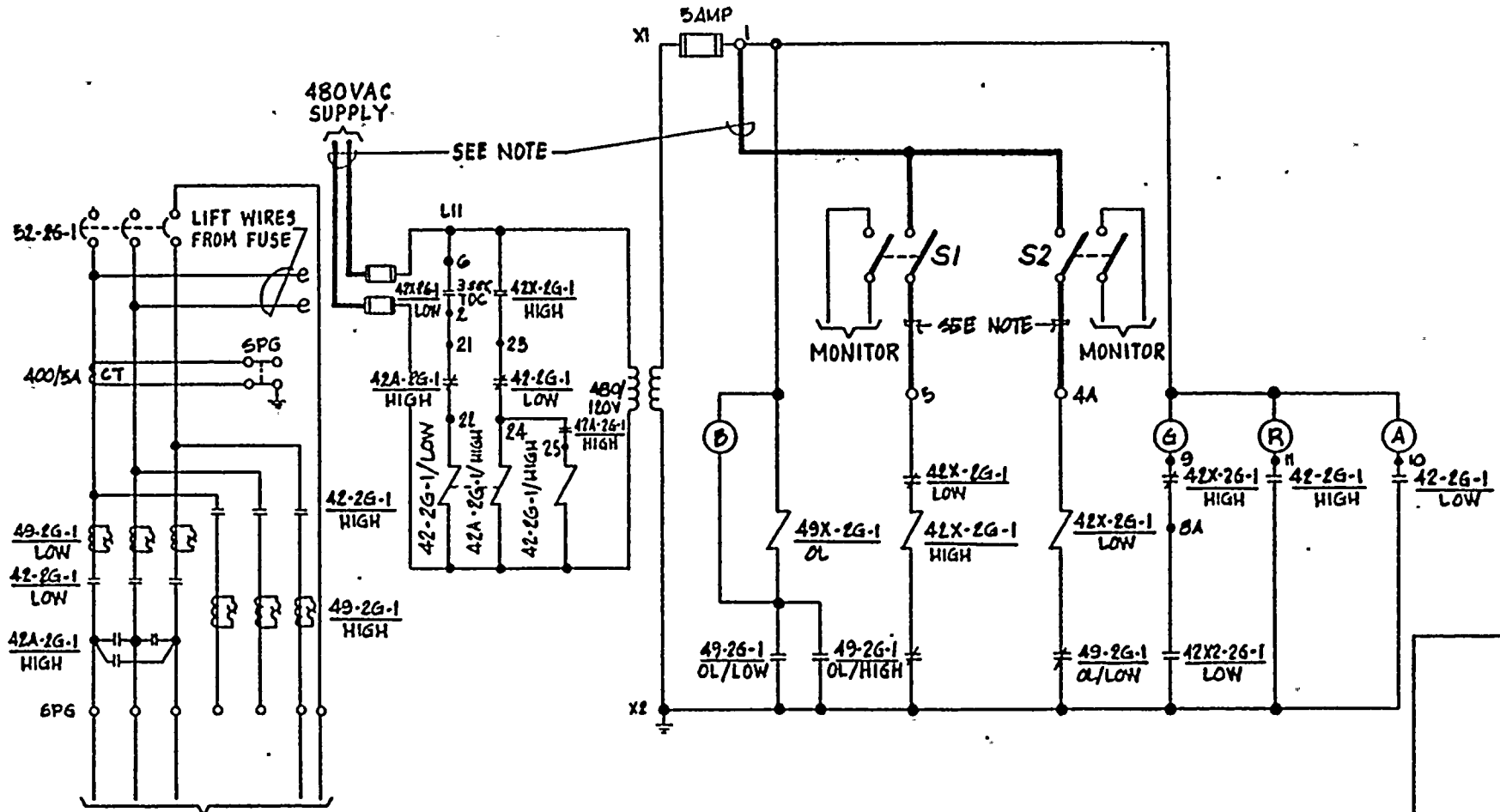
Side to Side orientation -

Repeat all sequences for the Front to Back orientation with the exception that the replacement contactor shall be tested first.

Check and document all operations after completion of test runs.

1 2 3 4 5 6 7 8 9 10

E
D
C
B
A



NOTE: HEAVY LINES TO BE WIRED BY WYLE LABORATORY.

NO.	DATE	DESCRIPTION	GM	DWN.	CHKD.	SUPV.	APVD.

APPROVED BY	GM
1-4-78	SUPV.
J&U	DSGN.
	DWN.
	CHKD.
	O.K.
	DATE
	SCALES

CONTAINMENT FAN COOLER MOTOR STARTER
SEISMIC TEST SCHEMATIC
DIABLO CANYON
DEPARTMENT OF ENGINEERING
PACIFIC GAS AND ELECTRIC COMPANY
SAN FRANCISCO, CALIFORNIA

MICROFILM	
BILL OF MATL	
DWG LIST	
SUPSDS	
SUPSD BY	
SHEET NO.	SHEETS
ATTACHMENT A	REV.

