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 ACIL: 50-275 Diablo Canyon Nuclear Power Plant, Unit 1, Pacific Ga 05000275
 50-323 Diablo Canyon Nuclear Power Plant, Unit 2, Pacific Ga 05000323

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SUBJECT: Responds to NRC ltr re violations noted in Insp Repts
 50-275/91-07 & 50-323/91-07 on 910422 & 0524. Corrective
 actions: contests first violation re Surveillance Test
 Procedures M-9I & M-9A, "Diesel Engine Generator...."

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August 19, 1991

PG&E Letter No. DCL-91-207



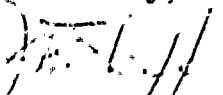
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Re: Docket No. 50-275, OL-DPR-80
Docket No. 50-323, OL-DPR-82
Diablo Canyon Units 1 and 2
Reply to Notice of Violation in NRC Inspection Report
Nos. 50-275/91-07 and 50-323/91-07

Gentlemen:

NRC Inspection Report Nos. 50-275/91-07 and 50-323/91-07 (Inspection Report), dated July 18, 1991, presented the results of the NRC Electrical Distribution System Functional Inspection conducted at Diablo Canyon between April 22 and May 24, 1991. The Inspection Report contained a Notice of Violation citing two Severity Level IV violations regarding acceptance criteria in surveillance test procedures and classification of an emergency diesel generator failure. PG&E's response to the Notice of Violation is provided in the enclosure.

Sincerely,


J. D. Shiffer

cc: Ann P. Hodgdon
John B. Martin
Phillip J. Morrill
Paul P. Narbut
Harry Rood
CPUC
Diablo Distribution

Enclosure

DC1-91-TN-N032
DC0-91-TN-N065

5451S/0085K/ALN/2237

9109050142 910819
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ENCLOSURE

REPLY TO NOTICE OF VIOLATION IN
NRC INSPECTION REPORT NOS. 50-275/91-07 AND 50-323/91-07

On July 18, 1991, NRC Region V issued a Notice of Violation citing two Severity Level IV violations for Diablo Canyon Power Plant (DCPP) Units 1 and 2. The statements of violation and PG&E's responses follow.

STATEMENT OF VIOLATION

- A. 10 CFR Part 50, Appendix B, Criterion V, requires in part that instructions, procedures or drawings include appropriate quantitative or qualitative acceptance criteria for determining that important activities have been satisfactorily accomplished. Technical Specification (TS) 6.8.1 incorporating Regulatory Guide (RG) 1.33, Revision 2, Appendix A paragraph 8.b require that specific procedures for surveillance tests be written to implement TS surveillance requirements.

Contrary to the above:

1. The acceptance criteria of Revision 3 of surveillance test procedure M-9I, "Diesel Generator Start Validity" ["Diesel Generator Testing Frequency Determination"], did not include a maximum time limit for starting and loading the Emergency Diesel Generator to the bus, within rated speed, voltage, and frequency, as required by TS surveillance requirement 4.8.1.1.2.a [4.8.1.1.2.b].
2. The acceptance criteria contained in surveillance procedure No. STP V 302, Revision 1, for emergency diesel generator air start system check valve/system leakage of 30 psig in 10 seconds, was not appropriate in that it did not ensure 45 seconds of continuous engine cranking, as specified in FSAR [Update] 8.3.1.1.13.2 [6.3.1.1.13.2], with the leakage allowed, and still be capable of starting the Emergency Diesel Generators to rated speed, voltage, and frequency and load within 10 seconds.

This is a Severity Level IV Violation (Supplement I).



RESPONSE TO VIOLATION A

Violation A is supported with two examples. PG&E addresses each of these examples separately. PG&E contests the first and admits the second.

A1. REASON FOR CONTESTING THE VIOLATION

PG&E believes that Surveillance Test Procedures (STPs) M-9I and M-9A, "Diesel Engine Generator Routine Surveillance Test," for emergency diesel generator (EDG) testing conform to and accurately implement the criteria of RG 1.108, "Periodic Testing of Diesel Generator Units Used as Onsite Electric Power Systems at Nuclear Power Plants," and the requirements of TS 4.8.1.1.2.a.

RG 1.108 does not include time limits for EDG starting or loading. As explained in Part B of RG 1.108, the failure of an EDG unit to load to its vital bus within a specified time depends on the interconnections among the entire onsite electric power system, not only on the EDG unit. Therefore, RG 1.108 does not specify that a failure to load to a vital bus within a specified time should be considered a valid failure for EDG reliability accounting purposes.

TS 4.8.1.1.2.a requires that an EDG start and accelerate to 900 revolutions per minute (RPM) within ten seconds. STP M-9A implements the ten second time limit as part of its acceptance criteria. STP M-9I is used to determine the validity of the start in accordance with RG 1.108, and thus the performance frequency of STP M-9A for all EDG starts.

Discussions with NRC personnel subsequent to issuance of the NOV indicate that the NRC agrees with PG&E's interpretation of RG 1.108, and therefore agrees that PG&E conformed with the surveillance requirements of TS 4.8.1.1.2.a.

ACTIONS TAKEN AND RESULTS ACHIEVED

PG&E will revise STP M-9I to provide a more clear interpretation of RG 1.108.

DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED.

PG&E is currently in full compliance with RG 1.108.

A2. REASON FOR THE VIOLATION IF ADMITTED

PG&E acknowledges that the acceptance criterion in STP V-302, "Exercising Valves DEG-214, 225, 236, 247, 258 & 269, Diesel Starting Air Comp. Discharge Check," was not appropriate because it did not assure that the EDG air starting system could maintain the FSAR Update requirement to supply enough air for 45 seconds of continuous EDG cranking. It should be noted that, as required by 10 CFR 50 Appendix B, the 45-second capacity of



the system had been verified previously by PG&E during pre-operational testing.

STP V-302 was intended to exercise the air starting system check valves to test for valve operability and gross air leakage and thus verify system operability, as described in the scope of the STP. The STP V-302 acceptance criteria were reviewed to determine if they were adequate to assure that the 45 second system design requirement was being maintained. While the current STP V-302 acceptance criteria assure that the valves open and close, and while testing and maintenance results indicate that the valves are functional and operable in accordance with design requirements, the criterion specifically related to closure was insufficient to assure that sufficient seating capability was developed to demonstrate that the 45 second system design requirement was maintained. The insufficient acceptance criterion was the result of a personnel error on the part of the engineer that developed STP V-302.

CORRECTIVE STEPS TAKEN AND RESULTS ACHIEVED

STP V-302 will be revised or another STP developed to include appropriate acceptance criteria consistent with the 45 second system design requirement.

CORRECTIVE STEPS THAT WILL BE TAKEN TO AVOID FURTHER VIOLATIONS

PG&E believes that no further corrective actions are required.

DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

STP V-302 will be revised or the new STP developed to include appropriate acceptance criteria by September 30, 1991.



STATEMENT OF VIOLATION

- B. TS 4.8.1.1.2.a requires, in part, that EDG starts be verified by the EDG accelerating to at least 900 RPM in less than or equal to 10 seconds, and EDG voltage and frequency be 4160 ± 420 volts and 60 ± 1.2 HZ within 13 seconds after the start signal. TS 4.8.1.1.2.a also requires, in part, that EDG testing frequency be in accordance with TS Table 4.8-1. TS Table 4.8-1 requires EDG testing frequency that is dependent on the number of valid tests and test failures. TS Table 4.8-1 requires that the criteria for determining the number of valid tests and failures be in accordance with Position C.2.e of Regulatory Guide (RG) 1.108, Revision 1. RG 1.108, Revision 1, defines "Failure" as the failure to start, accelerate, and assume the design rated load within the time prescribed during an emergency or valid test. Position C.2.e of RG 1.108, Revision 1, requires in part that all start attempts that result in failure to start and load, be considered valid tests and failures unless the failure can be definitely attributed to a malfunction of equipment that is not part of the defined EDG unit design.

Contrary to the above, an EDG 1-1 start on March 7, 1991, during a loss of offsite power event, took approximately 19.8 seconds to accelerate to rated speed, voltage and frequency, and assume its load, and was determined by the licensee to be an invalid failure, although the cause had not been definitely determined.

This is a Severity Level IV violation (Supplement I).

REASON FOR CONTESTING THE VIOLATION

On March 7, 1991, DCP Unit 1 experienced a loss of offsite power as reported in Licensee Event Report 1-91-004. The three EDGs started and loaded to their vital busses. Investigation into the loss of offsite power event identified that EDG 1-1 failed to load to its vital bus within the ten second time limit specified in TS 4.8.1.1.2.b. Investigation into the failure of the EDG to load to its vital bus within ten seconds concluded that the most probable cause of the problem was due to a component outside of the defined EDG unit.

PG&E concurs that there was not sufficient information to conclude that the problem with EDG 1-1 was limited to a component outside the defined EDG unit. However, as stated in PG&E's response to violation A.1 above, RG 1.108 does not include time limits for EDG loading. Therefore, the failure of EDG 1-1 to load to its vital bus within the ten seconds required by TS 4.8.1.1.2.b does not constitute a valid failure.

PG&E interprets time requirements for an EDG to load to be outside of the scope of RG 1.108. RG 1.108, Part B, states that "reliability objectives concerning the entire onsite electric power system's probability of failure



depend on the interconnection among the system and are not within the scope of (RG 1.108). 'Failure' is taken here to mean the failure to start, accelerate, and assume the design-rated load within and for the time prescribed during an emergency or a valid test." In accordance with PG&E's interpretation of Part B of RG 1.108, the failure of an EDG unit to load to its vital bus depends on system interconnections and therefore is not within the scope of RG 1.108.

Discussions with NRC personnel subsequent to the issuance of the NOV indicate that the NRC agrees with PG&E's interpretation of RG 1.108.

ACTIONS TAKEN AND RESULTS ACHIEVED

As stated in the response to violation A.1, STP M-9I will be revised to provide a more clear interpretation of RG 1.108.

DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

PG&E is currently in full compliance with RG 1.108.

