



Pacific Gas and
Electric Company®

Barry S. Allen
Vice President, Nuclear Services

Diablo Canyon Power Plant
Mail Code 104/6
P. O. Box 56
Avila Beach, CA 93424

805.545.4888
Internal: 691.4888
Fax: 805.545.6445

April 29, 2015

PG&E Letter DCL-15-052

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Docket No. 50-275, OL-DPR-80
Docket No. 50-323, OL-DPR-82
Diablo Canyon Units 1 and 2

Response to NRC Request for Additional Information Regarding License
Amendment Request 14-01, "Revision to Technical Specification 3.8.1, 'AC Sources
– Operating'"

- References:
1. PG&E Letter DCL-14-018, License Amendment Request 14-01, "Revision to Technical Specifications 3.8.1, 'AC Sources – Operating,'" dated March 27, 2014 (ADAMS Accession No. ML14086A426)
 2. NRC Letter, "Diablo Canyon Power Station, Units 1 and 2 – [Round 2] Requests for Additional Information (RAIs) for License Amendment Request 14-01 Associated with Revision to TS 3.8.1, 'AC Sources – Operating' (TAC Nos. MF3826 and MF3827)," dated March 25, 2015

Dear Commissioners and Staff:

PG&E Letter DCL-14-018, dated March 27, 2014, submitted License Amendment Request (LAR) 14-01, "Revision to Technical Specification 3.8.1, 'AC Sources – Operating.'" LAR 14-01 proposed to:

- (1) revise Surveillance Requirements (SRs) 3.8.1.2, 3.8.1.7, 3.8.1.11, 3.8.1.12, 3.8.1.15, 3.8.1.19, and 3.8.1.20 to change the allowable steady state diesel generator (DG) operating voltage and frequency bands;
- (2) revise SR 3.8.1.3 to change the DG test loading criterion;
- (3) add verification of DG cooling system function for SRs 3.8.1.3 and 3.8.1.14, respectively;
- (4) revise SR 3.8.1.4 to change the DG day tank SR minimum volume;
- (5) revise SR 3.8.1.9 to revise the voltage and frequency recovery timing requirement;
- (6) revise SR 3.8.1.10 to change the DG full-load rejection test loading criterion and voltage limit;
- (7) revise SR 3.8.1.14 to change the DG 24-hour test loading criteria;



- (8) revise SR 3.8.1.15 to change the DG test prerequisite loading criteria; and
- (9) add a new note to SRs 3.8.1.10 and 3.8.1.14 to reduce the SR minimum DG operating power factor (PF) with the stipulation that PF limit requirements are not required if grid conditions do not permit.

On March 25, 2015, the NRC staff requested additional information required to complete the review of LAR 14-01 (Reference 2). PG&E's responses to the staff's questions are provided in the Enclosure.

This information does not affect the results of the technical evaluation or the no significant hazards consideration determination previously transmitted in PG&E Letter DCL-14-018.

PG&E makes no regulatory commitments (as defined by NEI 99-04) in this letter. This letter includes no revisions to existing regulatory commitments.

If you have any questions, or require additional information, please contact Philippe Soenen at (805) 545-6984.

I state under penalty of perjury that the foregoing is true and correct.

Executed on April 29, 2015.

Sincerely,

Barry S. Allen
Vice President, Nuclear Services

kjse/4328/50307101

Enclosure

cc: Diablo Distribution
cc/enc: Marc L. Dapas, NRC Region IV Administrator
Thomas R. Hipschman, NRC Senior Resident Inspector
Siva P. Lingam, NRR Project Manager
Gonzalo L. Perez, Branch Chief, California Dept of Public Health

PG&E Response to NRC Request for Additional Information Regarding License Amendment Request 14-01, "Revision to Technical Specification 3.8.1, 'AC Sources – Operating'"

NRC RAI PEER-1

Diablo Canyon Power Plant is revising the proposed voltage limit in SR 3.8.1.10 from 5075V to 5096V; please explain why this new voltage limit is acceptable such that none of the components, including the generator, will be adversely affected, damaged or tripped.

PG&E Response:

Technical Specification (TS) Surveillance Requirement (SR) 3.8.1.10 is performed at least once per 24 months. The test is performed to test the full load rejection capability of the emergency diesel generator (DG). The DG is paralleled to the grid and loaded to 2860 kilowatt (kW) (nominal) (i.e., proposed change from 2600 kW) with a power factor (PF) of less than or equal to 0.84. The full load rejection is initiated by opening the DG output circuit breaker. The DG is verified not to trip (e.g. overspeed) and the peak transient voltage is verified not to exceed 5096 volts (V) (i.e., proposed change from 5075 V). This voltage increase occurs under a transient condition for a very short duration. During the elevated voltage portion of this test (i.e. post load rejection), all end utilization equipment is inherently protected because the bus is not connected to the DG. The components subjected to the subsequent voltage increase are those between the generator and the output circuit breaker.

The power cables from the output circuit breaker to the generator have an insulation rating of 5000 V and an insulation level of 133 percent. Therefore, the cable insulation rating is adequate. The SR 3.8.1.10 acceptance criterion of 5096 V is derived from the generator open circuit saturation curve corresponding to a load of 2860 kW. The generator is capable of operating at the open circuit (or no load) voltage when operating within the load rating of the generator.

Therefore, the 5096 V limit is considered a safe voltage and will not result in any adverse effect on the equipment or controls.

NRC RAI PEER-2:

Please confirm that the stored diesel fuel oil volume requirements specified in Technical Specification 3.8.3 A and B remain valid for the proposed Emergency Diesel Generator (EDG) loading requirements as a result of variations in EDG frequency and voltage.

PG&E Response:

The stored diesel fuel oil volume requirements specified in TS 3.8.3 A and B remain valid for the proposed DG loading requirements as a result of the variations in the DG frequency and voltage. The analysis calculation that demonstrates that TS 3.8.3 A and

B remain valid has been revised in support of the proposed License Amendment Request. The revision incorporates electrical load values from the DG load study analysis. The electrical loading values assume a worst case bus loading frequency of 60.8 Hertz and voltage of 4340 V. The fuel oil consumption values determined by this calculation are based on the DG loads defined in the TS Bases and the Updated Final Safety Analysis Report. The analysis demonstrates that all TS requirements for the DG fuel oil inventory are met and margins are maintained.