

September 15, 1994

Mr. Gregory M. Rueger  
Nuclear Power Generation, B14A  
Pacific Gas and Electric Company  
77 Beale Street, Room 1451  
P.O. Box 770000  
San Francisco, California 94177

SUBJECT: CORRECTIONS TO ISSUED AMENDMENTS FOR DIABLO CANYON POWER PLANT,  
UNIT NO. 1 (TAC NO. M88426) AND UNIT NO. 2 (TAC NO. M88427)

Dear Mr. Rueger:

On August 23, 1994, the Commission issued Amendment Nos. 93 and 92 to Facility Operating License Nos. DPR-80 and DPR-82, for the Diablo Canyon Power Plant, Unit Nos. 1 and 2, respectively.

These amendments revise Technical Specification (TS) 3/4.8.1, "A.C. Sources," to increase the required quantity of emergency diesel generator fuel oil in the engine-mounted tank (day tank) from 200 gallons to 250 gallons.

We have found typographical errors in these amendments. Page 3/4 8-11 should have the words "A separate engine-mounted fuel tank" in place of "An separate engine-mounted fuel tank," and page B 3/4 8-2 should have "2%" in place of "20%". Please replace TS pages 3/4 8-11 and B 3/4 8-2 with the enclosed corrected pages.

We are sorry if these errors have inconvenienced you in any way.

Sincerely,  
ORIGINAL SIGNED BY THEODORE R. QUAY FOR:  
Sheri R. Peterson, Project Manager  
Project Directorate IV-2  
Division of Reactor Projects - III/IV  
Office of Nuclear Reactor Regulation

Docket Nos. 50-275 and 50-323

Enclosures: TS pages 3/4 8-11  
and B 3/4 8-2

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

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Pacific Gas and Electric Company  
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A handwritten signature in cursive script, appearing to read "Sheri R. Peterson for".

Sheri R. Peterson, Project Manager  
Project Directorate IV-2  
Division of Reactor Projects - III/IV  
Office of Nuclear Reactor Regulation

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Mr. Gregory M. Rueger  
Pacific Gas and Electric Company

Diablo Canyon

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ELECTRICAL POWER SYSTEMS

A.C. SOURCES

SHUTDOWN

LIMITING CONDITION FOR OPERATION

3.8.1.2 As a minimum, the following A.C. electrical power sources shall be OPERABLE:

- a. One circuit between the offsite transmission network and the Onsite Class 1E Distribution System, and
- b. One diesel generator with:
  - 1. For Unit 1 Cycle 6 and Unit 2 Cycle 6:  
A separate engine-mounted fuel tank containing a minimum volume of 200 gallons of fuel,  
For Unit 1 Cycle 7 and after, Unit 2 Cycle 7 and after:  
A separate engine-mounted fuel tank containing a minimum volume of 250 gallons of fuel,
  - 2. One supply train of the Diesel Fuel Oil Storage and Transfer system containing a minimum storage of 26,000 gallons\* of fuel in addition to the fuel required for the other unit.

APPLICABILITY: MODES 5 and 6.

ACTION:

With less than the above minimum required A.C. electrical power sources OPERABLE, immediately suspend all operations involving CORE ALTERATIONS, positive reactivity changes, movement of irradiated fuel or crane operations with loads over the fuel storage pool. In addition, when in MODE 5 with the reactor coolant loops not filled, or in MODE 6 with the water level less than 23 feet above the reactor vessel flange, immediately initiate corrective action to restore the required sources to OPERABLE status as soon as possible.

SURVEILLANCE REQUIREMENTS

4.8.1.2 The above required A.C. electrical power sources shall be demonstrated OPERABLE by the performance of each of the requirements of Specifications 4.8.1.1.1, 4.8.1.1.2, 4.8.1.1.3, and 4.8.1.1.4, except for Specifications 4.8.1.1.1.b.2) and 4.8.1.1.2.a.2)c), b.2) for ESF timers, b.6), b.7), b.10), and b.11).

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\*The performance of Technical Specification Surveillance Requirement 4.8.1.1.3.e requires one fuel oil storage tank to be removed from service to be drained and cleaned. During this surveillance, the diesel generator fuel oil storage requirement for one unit operation in Modes 5 or 6 and one unit operation in Mode 6 with at least 23 feet of water above the reactor vessel flange or with the reactor vessel defueled is 35,000 gallons. The tank being cleaned may be inoperable for up to 10 days. For the duration of tank cleaning, temporary onsite fuel oil storage of 24,000 gallons will be maintained. Prior to removal of a tank from service, the offsite circuits required by Technical Specification 3.8.1.2.a will be verified to be OPERABLE.

ELECTRICAL POWER SYSTEMS

3/4.B.2 ONSITE POWER DISTRIBUTION

OPERATING

LIMITING CONDITION FOR OPERATION

3.8.2.1 The following electrical busses shall be energized in the specified manner:

For Units 1 and 2, Cycle 6:

- a. 4160 volt Vital Bus F.
- b. 480 volt Vital Bus F.
- c. 4160 volt Vital Bus G.
- d. 480 volt Vital Bus G.
- e. 4160 volt Vital Bus H.
- f. 480 volt Vital Bus H.
- g. 120 volt Vital Instrument A.C. Bus 1 energized from its associated inverter connected to D.C. Bus 1\*.
- h. 120 volt Supplemental Vital Instrument A.C. Bus 1A energized from its associated inverter connected to D.C. Bus 1\*.
- i. 120 volt Vital Instrument A.C. Bus 2 energized from its associated inverter connected to D.C. Bus 2\*.
- j. 120 volt Vital Instrument A.C. Bus 3 energized from its associated inverter connected to D.C. Bus 3\*.
- k. 120 volt Supplemental Vital Instrument A.C. Bus 3A energized from its associated inverter connected to D.C. Bus 3\*.
- l. 120 volt Vital Instrument A.C. Bus 4 energized from its associated inverter connected to D.C. Bus 2\*.
- m. 125 volt D.C. Bus 1 energized from Battery Bank 1, and its associated full-capacity charger.
- n. 125 volt D.C. Bus 2 energized from Battery Bank 2, and its associated full-capacity charger, and
- o. 125 volt D.C. Bus 3 energized from Battery Bank 3, and its associated full-capacity charger.

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\*Two vital instrument A.C. inverters or one vital and one supplemental vital instrument A.C. inverter may be disconnected from their D.C. busses for up to 24 hours for the purpose of performing an equalizing charge on their associated battery bank provided: (1) their vital busses are energized, and (2) the vital busses associated with the other battery banks are energized from their associated inverters and connected to their associated D.C. busses.

## 3/4.8 ELECTRICAL POWER SYSTEMS

### BASES

#### 3/4.8.1, 3/4.8.2, and 3/4.8.3 A.C. SOURCES, D.C. SOURCES, and ONSITE POWER DISTRIBUTION

The OPERABILITY of the A.C. and D.C. power sources and associated distribution systems during operation ensures that sufficient power will be available to supply the safety-related equipment required for: (1) the safe shutdown of the facility, and (2) the mitigation and control of accident conditions within the facility. The minimum specified independent and redundant A.C. and D.C. power sources and distribution systems satisfy the requirements of General Design Criterion 17 of Appendix A to 10 CFR Part 50.

The ACTION requirements specified for the levels of degradation of the power sources provide restriction upon continued facility operation commensurate with the level of degradation. The OPERABILITY of the power sources is consistent with the initial condition assumptions of the safety analyses and is based upon maintaining sufficient redundancy of the onsite A.C. and D.C. power sources and associated distribution systems OPERABLE during accident conditions coincident with an assumed loss-of-offsite power and single failure of one onsite A.C. source. The A.C. and D.C. source allowable out-of-service times are based on Regulatory Guide 1.93, "Availability of Electrical Power Sources," December 1974 except for the allowed outage time associated with Action Statement b. of Specification 3.8.1.1. This allowed outage time was changed to be consistent with the recommendation of Diablo Canyon Power Plant Diesel Generator Allowed Outage Time Study, May 1989. When one diesel generator is inoperable, there is an additional ACTION requirement to verify that all required systems, subsystems, trains, components and devices, that depend on the remaining OPERABLE diesel generators as a source of emergency power, are also OPERABLE, and that at least two auxiliary feedwater pumps are OPERABLE. This requirement is intended to provide assurance that a loss-of-offsite power event will not result in a complete loss of safety function of critical systems during the period one of the diesel generators is inoperable. The term, verify, as used in this context means to administratively check by examining logs or other information to determine if certain components are out-of-service for maintenance or other reasons. It does not mean to perform the surveillance requirements needed to demonstrate the OPERABILITY of the component.

The OPERABILITY of the minimum specified A.C. and D.C. power sources and associated distribution systems during shutdown and refueling ensures that: (1) the facility can be maintained in the shutdown or refueling condition for extended time periods, and (2) sufficient instrumentation and control capability is available for monitoring and maintaining the facility status.

The design of the 125-volt D.C. distribution system is such that a battery can have associated with it a full capacity charger powered from it associated 480-volt vital bus or an alternate full capacity charger powered from another 480-volt vital bus. Technical Specification 3.8.2.1 ACTION c. limits operation in the latter configuration to 14 days. Technical Specification 3.8.3.1 requires either charger be OPERABLE.

The Surveillance Requirements for demonstrating the OPERABILITY of the diesel generators are in accordance with the recommendations of Regulatory

ELECTRICAL POWER SYSTEMSBASESA.C. SOURCES, D.C. SOURCES, and ONSITE POWER DISTRIBUTION (Continued)

Guides 1.9, "Selection of Diesel Generator Set Capacity for Standby Power Supplies," March 10, 1971, 1.108, "Periodic Testing of Diesel Generator Units Used as Onsite Electric Power Systems at Nuclear Power Plants," Revision 1, August 1977, where applicable.

The steady state voltage and frequency Surveillance Requirements for demonstrating the OPERABILITY of the diesel generators are consistent with the second level undervoltage relay allowable values. This is the minimum steady state voltage needed on 4160 volt vital buses to ensure adequate 4160 volt, 480 volt and 120 volt levels. The maximum steady state output voltage of 4400 V is the maximum operating voltage for 4000 V motors specified in ANSI C84.1. The maximum steady state output voltage of 4400 V ensures that, for a lightly loaded distribution, system, the voltage at the terminals of 4000 V motors is no more than the maximum rated operating voltages. The specified minimum and maximum frequencies of the DG are 58.8 Hz and 61.2 Hz, respectively. These values are equal to  $\pm 2\%$  of the 60 Hz nominal frequency and are derived from the recommendations given in Regulatory Guide 1.9.

The Surveillance Requirements for demonstrating the OPERABILITY of the batteries are based on the recommendations of Regulatory Guide 1.129, "Maintenance Testing and Replacement of Large Lead Storage Batteries for Nuclear Power Plants," February 1978, and IEEE Std 450-1980, "IEEE Recommended Practice for Maintenance, Testing, and Replacement of Large Lead Storage Batteries for Generating Stations and Substations."

Verifying average electrolyte temperature above the minimum for which the battery was sized, total battery terminal voltage onfloat charge, connection resistance values and the performance of battery service and discharge tests ensures the effectiveness of the charging system, the ability to handle high discharge rates and compares the battery capacity at that time with the rated capacity.

Table 4.8-3 specifies the normal limits for each designated pilot cell and each connected cell for electrolyte level, float voltage and specific gravity. The limits for the designated pilot cells float voltage and specific gravity, greater than 2.13 volts and 0.015 below the manufacturer's full charge specific gravity or a battery charger current that had stabilized at a low value, is characteristic of a charged cell with adequate capacity. The normal limits for each connected cell for float voltage and specific gravity, greater than 2.13 volts and not more than 0.020 below the manufacturer's full charge specific gravity with an average specific gravity of all the connected cells not more than 0.010 below the manufacturer's full charge specific gravity, ensures the OPERABILITY and capability of the battery.

Operation with a battery cell's parameter outside the normal limit but within the allowable value specified in Table 4.8-3 is permitted for up to 7 days. During this 7-day period: (1) the allowable values for electrolyte level ensures no physical damage to the plates with an adequate electron transfer capability; (2) the allowable value for the average specific gravity of all the cells, not more than 0.020 below the manufacturer's recommended full charge specific gravity ensures that the decrease in rating will be less than the safety margin provided in sizing; (3) the allowable value for an individual cell's specific gravity ensures that an individual cell's specific gravity