

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

PACIFIC GAS AND ELECTRIC COMPANY

DIABLO CANYON NUCLEAR POWER PLANT, UNIT 1

DOCKET NO. 50-275

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 6 License No. DPR-80

1. The Nuclear Regulatory Commission (the Commission) has found that:

- A. The application for amendment dated August 27, 1985, (LAR 85-07) by Pacific Gas & Electric Company (the licensee) complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter 1;
- B. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission;
- C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
- D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
- E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
- Accordingly, the license is amended by a change to the combined Technical Specifications for Units 1 and 2 as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-80 is hereby amended to read as follows:

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(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 6, and the Environmental Protection Plan contained in Appendix B are hereby incorporated in the license. PG&E shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment becomes effect > at the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

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Klin Steven A. Varga, Director

PWR Project Directorate #3 Division of PWR Licensing-A

Attachment: Changes to the Technical Specifications

Date of Issuance: April 18, 1986

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

PACIFIC GAS AND ELECTRIC COMPANY

DIABLO CANYON NUCLEAR POWER PLANT, UNIT 2

DOCKET NO. 50-323

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 4 License No. DPR-82

- 1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment dated August 27, 1985, (LAR 85-07) by Pacific Gas & Electric Company (the licensee) complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter 1;
 - B. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
- Accordingly, the license is amended by a change to the combined Technical Specifications for Units 1 and 2 as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-82 is hereby amended to read as follows:

(2) Technical Specifications

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The Technical Specifications contained in Appendix A, as revised through Amendment No. 4 , and the Environmental Protection Plan contained in Appendix B are hereby incorporated in the license. PG&E shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment becomes effective at the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

w Ch Steven A. Warga, Director PWR Project Directorate #3 Division of PWR Licensing-A

Attachment: Changes to the Technical Specifications

Date of Issuance: April 18, 1986

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ATTACHMENT TO LICENSE AMENDMENT NOS. 6 AND 4

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FACILITY OPERATING LICENSE NOS. DPR-80 AND DPR-82

DOCKET NOS. 50-275 AND 50-323

Revise the following pages of the Appendix A Technical Specifications with the enclosed pages. The revised pages are identified by Amendment Number and contain vertical lines indiciating the area of change.

Remove Pages	Insert Pages
3/4 8-12	3/4 8-12
3/4 8-13	3/4 8-13
3/4 8-14	3/4 8-14
B 3/4 8-1	B 3/4 8-1

3/4.8.2 ONSITE POWER DISTRIBUTION

OPERATING

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LIMITING CONDITION FOR OPERATION

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

- 4160 volt Vital Bus F. b. 480 volt Vital Bus F, a.
- 480 volt Vital Bus G. 4160 volt Vital Bus G. d. C.
- 4160 volt Vital Bus H. f. 480 volt Vital Bus H. e.
- 120 volt Vital Instrument A.C. Bus 1 energized from its associated g. inverter connected to D.C. Bus 1*,
- 120 volt Supplemental Vital Instrument A.C. Bus 1A energized from h. its associated inverter connected to D.C. Bus 1*.
- 120 volt Vital Instrument A.C. Bus 2 energized from its associated 1. inverter connected to D.C. Bus 2*.
- 120 volt Vital Instrument A.C. Bus 3 energized from its associated j. inverter connected to D.C. Bus 3*.
- 120 volt Supplemental Vital Instrument A.C. Bus 3A energized from k. its associated inverter connected to D.C. Bus 3*.
- 120 volt Vital Instrument A.C. Bus 4 energized from its associated 1. inverter connected to D.C. Bus 2*,
- 125 volt D.C. Bus 1 energized from Battery Bank 1, and its associated m. full-capacity charger,
- 125 volt D.C. Bus 2 energized from Battery Bank 2, and its associated n. full-capacity charger, and
- 125 volt D.C. Bus 3 energized from Battery Bank 3, and its associated 0. full-capacity charger.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

- With one of the required 4160 volt and/or associated 480 volt vital 8. busses not energized, re-energize them within 8 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- With one vital instrument A.C. bus not energized from its associated b. inverter, or with one inverter not connected to its associated D.C.

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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.

LIMITING CONDITION FOR OPERATION

ACTION (Continued)

bus, re-energize the vital instrument A.C. bus from an alternate source within 2 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours; reenergize the vital instrument A.C. bus from its associated inverter connected to its associated D.C. bus within 24 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

- c. With more than one full-capacity charger receiving power simultaneously from a single 480 volt vital bus or any D.C. bus not receiving power from its associated A.C. division, restore the system to a configuration wherein each charger is powered from its associated 480 volt vital bus within 14 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- d. With one D.C. bus not energized from its associated battery bank and a full-capacity charger, re-energize it from its associated battery bank and a full-capacity charger within 2 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- e. With one supplemental vital instrument A.C. bus not energized from its associated inverter or with its inverter not connected to its associated D.C. bus, re-energize the supplemental vital instrument A.C. bus from an alternate source within 2 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours; re-energize the supplemental vital instrument A.C. bus from its associated inverter connected to its associated D.C. bus within 24 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.8.2.1 The specified busses shall be determined energized in the required manner at least once per 7 days by verifying correct breaker alignment and indicated voltage on the busses.

CNSITE POWER DISTRIBUTION

SHUTDOWN

LIMITING CONDITION FOR OPERATION

3.8.2.2 As a minimum, the following electrical busses shall be energized in the specified manner:

- a. One 4160-volt and its associated 480-volt A.C. vital bus,
- b. Two 120-volt vital instrument A.C. busses and one 120-volt supplemental vital instrument A.C. bus energized from their associated inverters connected to their respective D.C. busses, and
- c. One 125-volt D.C. bus energized from its associated battery bank and full-capacity charger supplied from its associated OPERABLE A.C. vital bus.

APPLICABILITY: MODES 5 and 6.

ACTION:

With any of the above required electrical busses not energized in the required manner, immediately suspend all operations involving CORE ALTERATIONS, positive reactivity changes, or movement of irradiated fuel, initiate corrective action to energize the required electrical busses in the specified manner as soon as possible.

SURVEILLANCE REQUIREMENTS

4.8.2.2 The specified busses shall be determined energized in the required manner at least once per 7 days by verifying correct breaker alignment and indicated voltage on the busses.

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BASES

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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. 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

DIABLO CANYON - UNITS 1 & 2 B 3/4 8-1

BASES

A.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, and 1.137 "Fuel Oil Systems for Standby Diesel Generators," Revision 1, October 1979, where applicable. The Third Diesel Generator Unit is designed to respond to a Safety Injection Signal from either Unit 1 or Unit 2. If the capability to respond to a Safety Injection Signal from one unit is maintained during surveillance testing on the other unit, then the third (common) Diesel Generator Unit shall be considered to be OPERABLE for that unit.

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

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BASES

A.C. Sources, D.C. Sources, and ONSITE POWER DISTRIBUTION (Continued)

will not be more than 0.040 below the manufacturer's full charge specific gravity and that the overall capability of the battery will be maintained within an acceptable limit; and (4) the allowable value for an individual cell's float voltage, greater than 2.07 volts, ensures the battery's capability to perform its design function.

3/4.8.4 ELECTRICAL EQUIPMENT PROTECTIVE DEVICES

The OPERABILITY of the motor operated valves thermal overload protection and bypass devices ensures that these devices will not prevent safety related valves from performing their function. The Surveillance Requirements for demonstrating the OPERABILITY of these devices are in accordance with Regulatory Guide 1.106, "Thermal Overload Protection for Electric Motors on Motor Operated Valves," Revision 1, March 1977.

Containment electrical penetrations and penetration conductors are protected by either deenergizing circuits not required during reactor operation or by demonstrating the OPERABILITY of primary and backup overcurrent protection circuit breakers during periodic surveillance.

The Surveillance Requirements applicable to lower voltage circuit breakers provide assurance of breaker reliability by testing at least one representative sample of each manufacturer's brand of circuit breaker. Each manufacturer's molded case and metal case circuit breakers are grouped into representative samples which are then tested on a rotating basis to ensure that all breakers are tested. If a wide variety exists within any manufacturer's brand of circuit breakers, it is necessary to divide that manufacturer's breakers into groups and treat each group as a separate type of breaker for surveillance

DIABLO CANYON - UNITS 1 & 2