

April 29, 1999

Mr. Gregory M. Rueger
Senior Vice President and General Manager
Pacific Gas and Electric Company
Diablo Canyon Nuclear Power Plant
P. O. Box 3
Avila Beach, California 93424

SUBJECT: ISSUANCE OF AMENDMENTS FOR DIABLO CANYON NUCLEAR POWER PLANT, UNIT NO. 1 (TAC NO. MA0743) AND UNIT NO. 2 (TAC NO. MA0744)

Dear Mr. Rueger:

The Commission has issued the enclosed Amendment No. 132 to Facility Operating License No. DPR-80 and Amendment No. 130 to Facility Operating License No. DPR-82 for the Diablo Canyon Nuclear Power Plant (DCNPP), Unit Nos. 1 and 2, respectively. The amendments authorize changes to the Final Safety Analysis Report Update in response to your application dated January 14, 1998, as supplemented by letters dated May 19, 1998, September 28, 1998, and three letters dated February 5, 1999.

These amendments authorize revisions to the licensing basis as described in the Final Safety Analysis Report Update to incorporate the modification to the 230 kV offsite power system.

A copy of the related Safety Evaluation is enclosed. The Notice of Issuance will be included in the Commission's next regular biweekly Federal Register notice.

Sincerely,
Original Signed By

Steven D. Bloom, Project Manager, Section 2
Project Directorate IV & Decommissioning
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-275
and 50-323

Enclosures: 1. Amendment No. 132 to DPR-80
2. Amendment No. 130 to DPR-82
3. Safety Evaluation

cc: See next page

DISTRIBUTION:

Docket PUBLIC
PDIV Reading
JZwolinski/SBlack
SRichards
SBloom
EPeyton
ACRS
OGC
WBeck
JKnox
JCalvo
KBrockman, RIV
LSmith, RIV
LHurley, RIV
JKilcrease, RIV
RCN (SE)

FILE CENTER COPY

Document Name: DCA0743A.WPD

OFC	PDIV-2	PDIV-2	OGC	PDIV-2/SC
NAME	SBloom	EPeyton	set	SDembek
DATE	4/12/99	4/9/99	4/20/99	4/26/99

OFFICIAL RECORD COPY

9905040135 990429
PDR ADOCK 05000275
PDR

046077

1/1
DF01



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

April 29, 1999

Mr. Gregory M. Rueger
Senior Vice President and General Manager
Pacific Gas and Electric Company
Diablo Canyon Nuclear Power Plant
P. O. Box 3
Avila Beach, California 93424

SUBJECT: ISSUANCE OF AMENDMENTS FOR DIABLO CANYON NUCLEAR POWER
PLANT, UNIT NO. 1 (TAC NO. MA0743) AND UNIT NO. 2 (TAC NO. MA0744)

Dear Mr. Rueger:

The Commission has issued the enclosed Amendment No. 132 to Facility Operating License No. DPR-80 and Amendment No. 130 to Facility Operating License No. DPR-82 for the Diablo Canyon Nuclear Power Plant (DCNPP), Unit Nos. 1 and 2, respectively. The amendments authorize changes to the Final Safety Analysis Report Update in response to your application dated January 14, 1998, as supplemented by letters dated May 19, 1998, September 28, 1998, and three letters dated February 5, 1999.

These amendments authorize revisions to the licensing basis as described in the Final Safety Analysis Report Update to incorporate the modification to the 230 kV offsite power system.

A copy of the related Safety Evaluation is enclosed. The Notice of Issuance will be included in the Commission's next regular biweekly Federal Register notice.

Sincerely,

A handwritten signature in black ink, appearing to read "S.D. Bloom", with a long horizontal line extending to the right.

Steven D. Bloom, Project Manager, Section 2
Project Directorate IV & Decommissioning
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-275
and 50-323

Enclosures: 1. Amendment No. 132 to DPR-80
2. Amendment No. 130 to DPR-82
3. Safety Evaluation

cc: See next page

Diablo Canyon Power Plant, Units 1 and 2

cc w/encls:

**NRC Resident Inspector
Diablo Canyon Nuclear Power Plant
c/o U.S. Nuclear Regulatory Commission
P. O. Box 369
Avila Beach, California 93424**

**Dr. Richard Ferguson, Energy Chair
Sierra Club California
1100 11th Street, Suite 311
Sacramento, California 95814**

**Ms. Nancy Culver
San Luis Obispo
Mothers for Peace
P. O. Box 164
Pismo Beach, California 93448**

**Chairman
San Luis Obispo County Board of
Supervisors
Room 370
County Government Center
San Luis Obispo, California 93408**

**Mr. Truman Burns
Mr. Robert Kinosian
California Public Utilities Commission
505 Van Ness, Room 4102
San Francisco, California 94102**

**Mr. Steve Hsu
Radiologic Health Branch
State Department of Health Services
Post Office Box 942732
Sacramento, California 94232**

**Diablo Canyon Independent Safety
Committee
ATTN: Robert R. Wellington, Esq.
Legal Counsel
857 Cass Street, Suite D
Monterey, California 93940**

**Regional Administrator, Region IV
U.S. Nuclear Regulatory Commission
Harris Tower & Pavillion
611 Ryan Plaza Drive, Suite 400
Arlington, Texas 76011-8064**

**Christopher J. Warner, Esq.
Pacific Gas & Electric Company
Post Office Box 7442
San Francisco, California 94120**

**Mr. David H. Oatley, Vice President
Diablo Canyon Operations and
Plant Manager
Diablo Canyon Nuclear Power Plant
P.O. Box 3
Avila Beach, California 93424**

**Telegram-Tribune
ATTN: Managing Editor
1321 Johnson Avenue
P.O. Box 112
San Luis Obispo, California 93406**



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

PACIFIC GAS AND ELECTRIC COMPANY

DOCKET NO. 50-275

DIABLO CANYON NUCLEAR POWER PLANT, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 132
License No. DPR-80

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Pacific Gas and Electric Company (the licensee) dated January 14, 1998, as supplemented by letters dated May 19, 1998, September 28, 1998, and three letters dated February 5, 1999, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, 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.
2. Accordingly, by Amendment No. 132, the license is amended to authorize revision of the Final Safety Analysis Report (FSAR) Update as set forth in the application for amendment by Pacific Gas and Electric Company dated January 14, 1998, as supplemented by letters dated May 19, 1998, September 28, 1998, and three letters dated February 5, 1999. Pacific Gas and Electric Company shall update the FSAR Update to reflect the revised licensing basis authorized by this amendment in accordance with 10 CFR 50.71(e).

9905040145 990429
PDR ADOCK 05000275
P PDR

3. This license amendment is effective as of its date of issuance and shall be implemented in the next periodic update to the FSAR Update in accordance with 10 CFR 50.71(e). Implementation of the amendment is the incorporation into the Final Safety Analysis Report Update, the changes to the description of the facility as described in the licensee's application dated January 14, 1998, as supplemented by letters dated May 19, 1998, September 28, 1998, and three letters dated February 5, 1999, and evaluated in the staff's Safety Evaluation attached to this amendment.

FOR THE NUCLEAR REGULATORY COMMISSION



Stephen Dembek, Chief, Section 2
Project Directorate IV & Decommissioning
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Date of Issuance: April 29, 1999



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

PACIFIC GAS AND ELECTRIC COMPANY

DOCKET NO. 50-323

DIABLO CANYON NUCLEAR POWER PLANT, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 130
License No. DPR-82

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Pacific Gas and Electric Company (the licensee) dated January 14, 1998, as supplemented by letters dated May 19, 1998, September 28, 1998, and three letters dated February 5, 1999, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, 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.
2. Accordingly, by Amendment No. 130, the license is amended to authorize revision of the Final Safety Analysis Report (FSAR) Update as set forth in the application for amendment by Pacific Gas and Electric Company dated January 14, 1998, as supplemented by letters dated May 19, 1998, September 28, 1998, and three letters dated February 5, 1999. Pacific Gas and Electric Company shall update the FSAR Update to reflect the revised licensing basis authorized by this amendment in accordance with 10 CFR 50.71(e).

3. This license amendment is effective as of its date of issuance and shall be implemented in the next periodic update to the FSAR Update in accordance with 10 CFR 50.71(e). Implementation of the amendment is the incorporation into the Final Safety Analysis Report Update, the changes to the description of the facility as described in the licensee's application dated January 14, 1998, as supplemented by letters dated May 19, 1998, September 28, 1998 and three letters dated February 5, 1999, and evaluated in the staff's Safety Evaluation attached to this amendment.

FOR THE NUCLEAR REGULATORY COMMISSION



Stephen Dembek, Chief, Section 2
Project Directorate IV & Decommissioning
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Date of Issuance: April 29, 1999



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 132 TO FACILITY OPERATING LICENSE NO. DPR-80
AND AMENDMENT NO. 130 TO FACILITY OPERATING LICENSE NO. DPR-82
PACIFIC GAS AND ELECTRIC COMPANY
DIABLO CANYON NUCLEAR POWER PLANT, UNITS 1 AND 2
DOCKET NOS. 50-275 AND 50-323

1.0 INTRODUCTION

By letter dated January 14, 1998, as supplemented by letters dated May 19, 1998, September 28, 1998, and three letters dated February 5, 1999, Pacific Gas and Electric Company (PGE) submitted a License Amendment Request for the review and approval of a modification to the Diablo Canyon Nuclear Power Plant (DCNPP), Units 1 and 2, 230 kV offsite power system with the installation of a startup transformer having an automatic load tap changer (LTC), along with the installation of shunt capacitor banks.

The supplemental letters dated September 28, 1998, and February 5, 1999 (3 letters), provided additional clarifying information, did not expand the scope of the application as originally noticed, and did not change the staff's original proposed no significant hazards consideration determination published in the Federal Register on October 7, 1998 (63 FR 53952).

2.0 EVALUATION

The offsite power system for the Diablo Canyon Power Plant consists of one 230 kV immediate and one 500 kV delayed access circuits from the transmission network. The immediate access circuit consists of: (a) two transmission lines (one from Morro Bay Power Plant switchyard and the other from the Mesa Substation) to Diablo's 230 kV switchyard, (b) the Diablo 230 kV switchyard, and (c) one transmission line from Diablo's 230 kV switchyard to each unit's startup transformer and safety busses. The delayed access circuit consists of: (a) three 500 kV transmission lines to Diablo's 500 kV switchyard, (b) a Diablo 500 kV switchyard, and (c) two transmission lines (one for each unit) from Diablo's 500 kV switchyard through each unit's main transformer to the safety buses. The delayed circuit is made available to safety systems through operation of a motor-operated disconnect switch from the main control room.

On August 8, 1995, the licensee determined that the 230 kV system may not have been able to meet its operability requirements for some system loading conditions. Studies conducted at that time indicated that during peak system loading, all 230 kV lines and the Morro Bay Power

9905040152 990429
PDR ADOCK 05000275
P PDR

Plant Units 3 and 4 needed to be in service to ensure operability (i.e., minimum 230 kV voltage requirements are met at the Diablo Canyon safety buses following unit trip to a design basis event). This finding was reported to the NRC by License Event Report 1-95-007.

In addition, California is in the process of restructuring its electric industry. Legislation passed by the California legislature and signed into law describes requirements associated with restructuring of the electric industry. This legislation, in part, required the establishment of an Independent System Operator (ISO) that will be responsible for directing operation of the transmission system and controlling power flow and availability. Various decisions of the California Public Utilities Commission which preceded the enactment of the restructuring legislation also required that the licensee (Pacific Gas and Electric) and Southern California Edison submit plans to voluntarily divest at least half of their fossil-fueled generation facilities to assure that the utilities do not exercise market power in California due to their generation capability. In complying with this requirement, the licensee has agreed to sell the Morro Bay Power Plant. Morro Bay is an approximately 1000 MWe power plant consisting of four natural gas fired units.

To resolve voltage/operability issues on the 230 kV system (reported in Licensee Event Report 1-95-007) and in preparation for electric industry restructuring (primarily the sale of Morro Bay), the licensee implemented the following changes. The startup transformer for each unit was replaced with a transformer having an automatic load tap changer (LTC); and shunt capacitor banks were installed at the Diablo Canyon 230 KV switchyard and at the Mesa 115 kV Substation. The objective of these changes was (1) to provide DCPD with an adequate immediate access offsite power source from the 230 kV system assuming operation of the transmission network in accordance with Western System Coordinating Council (WSCC) emergency and normal operating voltage criteria, and (2) to ensure that DCPD is no longer dependent on Morro Bay operation. WSCC emergency and normal operating voltage criteria allows the transmission system to be operated with voltages of +5 percent/-10 percent (241.5 kV to 207 kV) during emergency conditions and +5 percent/-5 percent (241.5 kV to 218.5 kV) during normal conditions.

By letter dated December 12, 1997, and in a subsequent meeting on December 22, 1997, the licensee submitted information and discussed issues relating to electric industry restructuring and the above described changes. As part of this information exchange, the licensee indicated that they had reviewed the changes in accordance with 10 CFR 50.59, and concluded that the changes do not involve an unreviewed safety question (USQ). NRC approval was, thus, considered not required prior to implementing the changes. The NRC staff disagreed and indicated that some of the changes may involve a USQ and require NRC review and approval prior to their implementation. As a result, the licensee, by letter dated January 14, 1998, requested that the NRC review the appropriateness of their USQ determination and, if the NRC determined that the 230 kV changes involve a USQ, the licensee requested that the changes then be reviewed and approved as a license amendment request in accordance with 10 CFR 50.90.

Because the staff concluded that the changes should be deemed a USQ, an evaluation was initiated, as requested by the licensee, for the review and approval of the changes as a license amendment in accordance with 10 CFR 50.90.

In response to an NRC request for additional information, the licensee, by letter dated May 19, 1998, provided results of stability analysis for the following offsite system configurations:

1. Normal configuration:

All 230 kV transmission lines in service (which could have an impact on operability of offsite power at DCPD) including voltage support devices such as the automatic load tap changer and capacitor banks at DCPD and Mesa.

2. Off-normal configurations:

- a. Capacitor banks at DCPD and Mesa unavailable,
- b. Capacitor banks at DCPD and Mesa unavailable and both Units 1 and 2 aligned to a single startup transformer,
- c. Automatic load tap changer unavailable,
- d. One of two startup transformer unavailable,
- e. Capacitor banks at Mesa unavailable,
- f. Capacitor banks at Mesa unavailable and both Units 1 and 2 aligned to a single startup transformer,
- g. Capacitor banks at DCPD unavailable,
- h. Capacitor banks at DCPD unavailable and both Units 1 and 2 aligned to a single startup transformer.
- i. Any single 230 kV transmission line between DCPD and Midway or Gates unavailable,
- j. Both 230 kV transmission lines between Morro Bay and Gates or between Morro Bay and Midway unavailable,
- k. One 230 kV bus (or bus section) located in the DCPD or Morro Bay switchyard unavailable, and
- l. Startup or shutdown of one unit with the other unit operating.

Normal System Configurations

For the normal offsite system configuration (defined above), analysis results indicate that the 230 kV system will continue to remain operable in accordance with licensing basis requirements described above following offsite system contingencies or events. These analysis results satisfy staff review procedures/guidelines described in Section 8.2, Part III.1.(f), of the NRC's Standard Review Plan (NUREG-0800) for meeting the requirements of Criterion 17 of 10 CFR

Part 50, Appendix A. The results provide reasonable assurance that offsite power will be operable and thus available to safety system loads when needed following a accident. The failure of equipment (such as the capacitor banks and automatic load tap changers which have been added to the system as either new or replacement equipment) have been included as single contingencies/events in the analysis. The NRC staff thus concludes that the proposed new offsite system configuration, which utilizes the availability of power from the Gates and Midway substations and automatic load tap changers and capacitors to maintain/support voltage, has sufficient reliability to be available when needed, and is considered acceptable.

Off-Normal System Configurations

For the off-normal configurations (defined above) and for various combinations of these configurations, analysis results also indicated operability or inoperability with actions (if available) that are needed to reestablish operability for each configuration. Operability was clarified/defined with respect to the DCPD technical specifications. Operability is assumed when analysis demonstrates the availability of the 230 kV system following a design basis accident.

Criterion 17 of 10 CFR Part 50, Appendix A, requires the availability of offsite power to safety system loads following a design basis accident. The licensee's clarification/definition for operability meets this requirement. Thus, when the offsite system will be operated with an off-normal configuration, the system's reliability (the availability of the 230 kV system with sufficient capacity and capability when needed following a design basis event) will not be significantly affected. Individual system components have excellent reliability as demonstrated by their operating history. The majority of components perform their design function on a continuous basis and thus their operability (or availability) is also continuously monitored. Loss of availability, monitored by offsite system operators, is immediately reported by procedure to DCPD operators. The newly installed load tap changers and capacitor banks have been conservatively designed and are likewise considered to have excellent reliability. Operability of the load tap changer is monitored from the DCPD control room. Operability of capacitor banks is monitored remotely by offsite system operators and inoperability is immediately reported by procedure to DCPD operators.

The NRC staff concludes that the component parts of the offsite system have the necessary reliability to assure the availability of offsite power when needed following a design basis event. The proposed offsite system changes meet the requirements of Criterion 17 of 10 CFR Part 50, Appendix A, and are considered acceptable.

Based on the above, the NRC staff concludes that there is reasonable assurance that the proposed new offsite system configuration will have sufficient capacity and capability to supply power when needed to safety system loads and other required equipment following a design basis event, that it meets Criterion 17 of 10 CFR Part 50, Appendix A, and that it is therefore acceptable.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the California State official was notified of the proposed issuance of the amendments. The State official had no comments.

4.0 ENVIRONMENTAL CONSIDERATION

These amendments change a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration, and there has been no public comment on such finding (63 FR 53952). Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

5.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributors: J. Knox

Date: April 29, 1999