

February 6, 1990

Docket Nos. 50-275
and 50-323

Mr. J. D. Shiffer, Vice President
Nuclear Power Generation
c/o Nuclear Power Generation, Licensing
Pacific Gas and Electric Company
77 Beale Street, Room 1451
San Francisco, California 94106

Dear Mr. Shiffer:

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SUBJECT: ISSUANCE OF AMENDMENTS (TAC NOS. 72723 AND 72724)

The Commission has issued the enclosed Amendment No. 48 to Facility Operating License No. DPR-80 and Amendment No. 47 to Facility Operating License No. DPR-82 for the Diablo Canyon Power Plant (DCPP), Units 1 and 2, respectively. The amendments change the Diablo Canyon combined Technical Specifications (TS) in response to your application for license amendments dated March 22, May 15, as supplemented by letter dated December 26, 1989 (Reference LAR 89-03). The amendments revise the TS to (1) change TS 4.3.1.1, Table 4.3-1, Item 23, "Seismic Trip," to increase the surveillance test interval (STI) for the seismic trip system actuating device operational test from 6 to 18 months to eliminate the need to perform seismic trip system surveillance testing at power, and (2) Change TS 3.3.1, Table 3.3-1, Item 23, "Seismic Trip," to allow any one of the three seismic trip system channels to be bypassed for up to 72 hours for surveillance testing or maintenance while operating at power.

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

Sincerely,

ORIGINAL SIGNED BY HARRY ROOD

Harry Rood, Senior Project Manager
Project Directorate V
Division of Reactor Projects - III,
IV, V and Special Projects Office of
Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 48 to DPR-80
2. Amendment No. 47 to DPR-82
3. Safety Evaluation

cc w/enclosures:
See next page

DRSP/PD5
JLee
01/12/90

DRSP/PD
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01/9/90

DET/BC:ESGB
GBagchi
01/14/90

OGC
R. Buchanan
01/24/90
w/changes to SE

DRSA/D(A):PD5
CT Hammett
01/16/90

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PDR ADOCK 05000275
PDC
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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

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

Sincerely,

A handwritten signature in cursive script, reading "Harry Reed", is positioned above the typed name.

Harry Reed, Senior Project Manager
Project Directorate V
Division of Reactor Projects - III,
IV, V and Special Projects Office of
Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 48 to DPR-80
2. Amendment No. 47 to DPR-82
3. Safety Evaluation

cc w/enclosures:
See next page

Mr. J. D. Shiffer
Pacific Gas and Electric Company

Diablo Canyon

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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.48
License No. DPR-80

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Pacific Gas & Electric Company (the licensee), dated March 22 and May 15, 1989, as supplemented by letter dated December 26, 1989 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 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.

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PDC

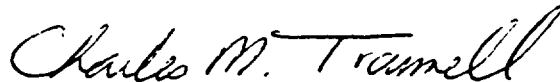
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-80 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 48, are hereby incorporated in the license. Pacific Gas & Electric Company shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan, except where otherwise stated in specific license conditions.

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

FOR THE NUCLEAR REGULATORY COMMISSION



Charles M. Trammell, Acting Director
Project Directorate V
Division of Reactor Projects - III,
IV, V and Special Projects
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: February 6, 1990



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. 47
License No. DPR-82

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Pacific Gas & Electric Company (the licensee), dated March 22 and May 15, 1989, as supplemented by letter dated December 26, 1989 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 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.

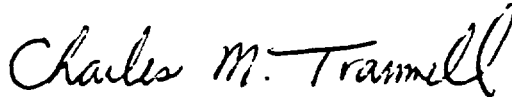
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-82 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 47, are hereby incorporated in the license. Pacific Gas & Electric Company shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan, except where otherwise stated in specific license conditions.

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

FOR THE NUCLEAR REGULATORY COMMISSION



Charles M. Trammell, Acting Director
Project Directorate V
Division of Reactor Projects - III,
IV, V and Special Projects
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: February 6, 1990

ATTACHMENT TO LICENSE-AMENDMENT NOS. 48 AND 47
FACILITY OPERATING LICENSE NOS. DPR-80 and DPR-82
DOCKET NOS. 50-275 AND 50-323

Replace the following pages of the Appendix "A" Technical Specifications with the attached pages. The revised pages are identified by Amendment number and contain vertical lines indicating the areas of change. Overleaf pages are also included, as appropriate.

Remove Page

3/4 3-4
3/4 3-7
3/4 3-12

Insert Page

3/4 3-4
3/4 3-7
3/4 3-12

TABLE 3.3-1 (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION

<u>FUNCTIONAL UNIT</u>	<u>TOTAL NO. OF CHANNELS</u>	<u>CHANNELS TO TRIP</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ACTION</u>
18. Safety Injection Input from ESF	2	1	2	1, 2	10
19. Reactor Coolant Pump Breaker Position Trip above P-7	1/breaker	2	1/breaker	1	9
20. Reactor Trip Breakers	2 2	1 1	2 2	1, 2 3*, 4*, 5*	10, 12 11
21. Automatic Trip and Interlock Logic	2 2	1 1	2 2	1, 2 3*, 4*, 5*	10 11
22. Reactor Trip System Interlocks					
a. Intermediate Range Neutron Flux, P-6	2	1	2	2##	8
b. Low Power Reactor Trips Block, P-7 P-10 Input	4	2	3	1	8#
P-13 Input	2	1	2	1	8#
c. Power Range Neutron Flux, P-8	4	2	3	1	8#
d. Power Range Neutron Flux, P-9	4	2	3	1	8#
e. Power Range Neutron Flux, P-10	4	2	3	1, 2	8#
f. Turbine Impulse Chamber Pressure, P-13 (Input to P-7)	2	1	2	1	8#
23. Seismic Trip	3 direc- tions (x,y,z) in 3 locations	2/3 loca- tions one direction	2/3 loca- tions all directions	1, 2	13#

TABLE 3.3-1 (Continued)

ACTION STATEMENTS (Continued)

- ACTION 9 - With less than the Minimum Number of Channels OPERABLE, operation may continue provided the inoperable channel is placed in the tripped condition within the next 6 hours.
- ACTION 10 - With the number of channels OPERABLE one less than the Minimum Channels OPERABLE requirement, be in at least HOT STANDBY within 6 hours; however, one channel may be bypassed for up to 2 hours for surveillance testing per Specification 4.3.1.1, provided the other channel is OPERABLE.
- ACTION 11 - With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 48 hours or open the Reactor trip breakers within the next hour.
- ACTION 12 - With one of the diverse trip features (Undervoltage or shunt trip attachment) inoperable, restore it to OPERABLE status within 48 hours or declare the breaker inoperable and apply ACTION 10. The breaker shall not be bypassed while one of the diverse trip features is inoperable except for the time required for performing maintenance to restore the breaker to OPERABLE status.
- ACTION 13 With the number of OPERABLE channels one less than the Total Number of Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied:
- a. The Minimum Channels OPERABLE requirement is met, and
 - b. The inoperable channel is placed in the tripped conditions within 6 hours; however, the inoperable channel may be bypassed for up to 72 hours for surveillance testing per Specification 4.3.1.1 or for performing maintenance.

TABLE 4.3-1 (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>FUNCTIONAL UNIT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>ANALOG CHANNEL OPERATIONAL TEST</u>	<u>TRIP ACTUATING DEVICE OPERATIONAL TEST</u>	<u>ACTUATION LOGIC TEST</u>	<u>MODES FOR WHICH SURVEILLANCE IS REQUIRED</u>
20. Reactor Trip System Interlocks (Continued)						
d. Power Range Neutron Flux, P-9	N.A.	R(4)	R	N.A.	N.A.	1
e. Low Setpoint Power Range Neutron Flux, P-10	N.A.	R(4)	R	N.A.	N.A.	1, 2
f. Turbine Impulse Chamber Pressure, P-13	N.A.	R	R	N.A.	N.A.	1
21. Reactor Trip Breaker	N.A.	N.A.	N.A.	M(7, 10)	N.A.	1, 2, 3*, 4*, 5*
22. Automatic Trip and Interlock Logic	N.A.	N.A.	N.A.	N.A.	M(7)	1, 2, 3*, 4*, 5*
23. Seismic Trip	N.A.	R	N.A.	R	R	1, 2
24. Reactor Trip Bypass Breaker	N.A.	N.A.	N.A.	M(7,15),R(16)	N.A.	1,2,3*,4*,5*



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 48 TO FACILITY OPERATING LICENSE NO. DPR-80
AND AMENDMENT NO. 47 TO FACILITY OPERATING LICENSE NO. DPR-82
PACIFIC GAS AND ELECTRIC COMPANY
DIABLO CANYON NUCLEAR POWER PLANT, UNIT NOS. 1 AND 2
DOCKET NO. 50-275 AND 50-323

1.0 INTRODUCTION

By letters dated March 22, May 15, and December 26, 1989 (Reference LAR 89-03), Pacific Gas and Electric Company (PG&E or the licensee) requested amendments to the combined Technical Specifications (TS) appended to Facility Operating License Nos. DPR-80 and DPR-82 for the Diablo Canyon Power Plant (DCPP), Unit Nos. 1 and 2, respectively. The amendments change the TS to (1) change TS 4.3.1.1, Table 4.3-1, Item 23, "Seismic Trip," to increase the surveillance test interval (STI) for the seismic trip system actuating device operational test from "SA" (at least once per 184 days, or approximately 6 months) to "R" (at least once per 18 months to eliminate the need to perform seismic trip system surveillance testing at power, and (2) Change TS 3.3.1, Table 3.3-1, Item 23, "Seismic Trip," to allow any one of the three seismic trip system channels to be bypassed for up to 72 hours for surveillance testing or maintenance while operating at power.

The staff evaluation of these changes is given below and is based on the licensee's letters of March 22, May 15, and December 26, 1989. The information contained in the licensee's letter of December 26, 1989 did not change the action noticed in, or alter the staff's proposed determination of no significant hazards consideration published in the Federal Register on May 31, 1989 at 54 FR 23318.

2.0 EVALUATION

The NRC staff has evaluated the proposed changes and finds them acceptable, based on the analyses and evaluations given by the licensee. A discussion of each of the specific technical specification changes made by these amendments, is presented below.

- (1) Item 23, "Seismic Trip," of Table 4.3-1, "Reactor Trip System Instrumentation Surveillance Requirements", of TS 3/4.3.1, "Reactor Trip System Instrumentation", is modified to increase the surveillance test interval (STI) for the seismic trip system actuating device operational test from "SA" (at least once per 184 days) to "R" (at least once per 18 months) to eliminate the need to perform seismic trip system surveillance testing at power.

The licensee notes that operation of the seismic trip system is not required or assumed to mitigate the consequences of any accident analyzed in Chapter 15 of the FSAR. The plant was licensed on the basis of its capability to safely shut down following the "Hosgri" and the "Double-Design Earthquake" without relying on the seismic trip system.

The licensee has had an unavailability evaluation performed by Westinghouse to determine the effect on core damage frequency of changing the STI from 6 to 18 months. The evaluation indicated that the core damage frequency would be increased by a negligible amount (approximately 0.012 percent).

The licensee also states that the operating history of the seismic trip system demonstrates that component failures would not have prevented a reactor trip had a seismic event of the prescribed magnitude occurred. Because the system design does not permit reliable testing at power, two inadvertent reactor trips have occurred during testing. Such challenges to the reactor protection system cause an increase in core damage frequency. Increasing the STI to allow testing to be performed during shutdown periods will eliminate the risk of inadvertent reactor trips and establishing an out of service time will allow for maintenance or component replacement at power.

Therefore, the licensee concludes that increasing the STI of the trip actuating device operational test from 6 to 18 months will result in a net increase in plant safety, because of the reduction in the number of unnecessary plant trips is more significant than the longer time between system surveillances.

Each seismic trip sensor is provided with internal batteries to assure operation in the event the normal power source is lost. The normal power source is vital instrument power installed in accordance with Class 1E requirements with each of the three sensors powered from a separate protection set. Thus, the battery backup power supply for a sensor would be relied upon only if the protection set power supply for that sensor were to become inoperable. The battery vendor recommends that the battery be checked semiannually. To ensure that the seismic monitor battery check is performed in accordance with the manufacturer's recommendations, the licensee has committed to create a new surveillance test procedure which will require that the batteries be checked semiannually. The licensee has also committed to track battery surveillance using PG&E's computerized recurring task scheduler system to further assure that it is performed semiannually, as planned. The NRC staff has reviewed the licensee's commitment to semiannually check the seismic monitor batteries and finds it acceptable.

The NRC staff has reviewed the licensee's evaluations and analyses described above and agrees that the proposed increase in the STI will not adversely affect the safety of the plant.

- (2) Item 23, "Seismic Trip," of Table 3.3-1, "Reactor Trip System Instrumentation", of TS 3/4.3.1, "Reactor Trip System Instrumentation", is modified to allow any one of the three seismic trip system channels to be bypassed for up to 72 hours for surveillance testing or maintenance while operating at power. When one channel is bypassed, a two of two coincidence in one of the three axes would generate a reactor trip if the trip setpoint of 0.35g is exceeded. When no channels are bypassed, two of three coincidence is required to generate a trip.

The licensee states that this change does not result in a significant reduction in plant safety, based on an evaluation of the effect on core damage frequency of taking all three channels out of service for 72 hours while operating at power. This study showed that the core damage frequency was increased by a negligible amount (0.002 percent). Since placing one channel in bypass for 72 hours will have a much smaller effect than removing three channels from service for 72 hours, the licensee concludes that no adverse safety consequences result.

The NRC staff has reviewed the licensee's evaluation and agrees that it will not have an adverse affect on safety.

In summary, the NRC staff has reviewed the request by the Pacific Gas and Electric Company to modify the combined Technical Specifications for Diablo Canyon Units 1 and 2 to change the STI for the seismic trip system to 18 months, and to allow one channel of the system to be placed in bypass for 72 hours during power operation, and finds it acceptable, as discussed above.

3.0 ENVIRONMENTAL CONSIDERATION

These amendments involve changes to a requirement with respect to the installation or use of facility components located within the restricted area as defined in 10 CFR Part 20 and a change in surveillance requirements. At Diablo Canyon, the restricted area coincides with the site boundary. We have 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. Accordingly, these 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 these amendments.

4.0 CONCLUSION

We have 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, and
(2) such activities will be conducted in compliance with the Commission's regulations and (3) the issuance of these amendments will not be inimical to the common defense and security or the health and safety of the public.

Principal Contributors: Harry Rood
Robert Rothman

Dated: February 6, 1990