

Docket Nos. 50-275
and 50-323

JUN 26 1991

Mr. J. D. Shiffer
Nuclear Power Generation
Senior Vice President
Pacific Gas and Electric Company
77 Beale Street, Room 1451
San Francisco, CA 94106

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Dear Mr. Shiffer:

SUBJECT: ISSUANCE OF AMENDMENTS (TAC NOS. 77908 AND 77909)

The Commission has issued the enclosed Amendment No. 63 to Facility Operating License No. DPR-80 and Amendment No. 62 to Facility Operating License No. DPR-82 for the Diablo Canyon Nuclear Power Plant, Unit Nos. 1 and 2, respectively. The amendments consist of changes to the Technical Specifications (TS) in response to your application dated October 18, 1990.

These amendments revise the combined Technical Specifications (TS) for Diablo Canyon Power Plant Unit Nos. 1 and 2. The change allows the determination of Quadrant Power Tilt Ratio by either a full incore flux map or by symmetric flux thimble measurement in the event that a single power range channel becomes inoperable above 75 percent rated thermal power. The existing TS permit only the use of the four pairs of symmetric core thimbles in this situation.

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

Sincerely,

ORIGINAL SIGNED BY

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

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PDR ADOCK 05000275
P PDR

Enclosures:

1. Amendment No. 63 to License No. DPR-80
2. Amendment No. 62 to License No. DPR-82
3. Safety Evaluation

cc w/enclosures:
See next page

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JFO/111



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

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Sincerely,

A handwritten signature in cursive script that reads "Harry Rood".

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

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1. Amendment No. 63 to
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2. Amendment No. 62 to
License No. DPR-82
3. Safety Evaluation

cc w/enclosures:
See next page

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

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

PACIFIC GAS AND ELECTRIC COMPANY
DIABLO CANYON NUCLEAR POWER PLANT, UNIT NO. 1
DOCKET NO. 50-275
AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 63
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 October 18, 1990, 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-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. 63 , 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 is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

for *Charles M. Trammell*
James E. Dyer, Director
Project Directorate V
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: June 26, 1991



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

PACIFIC GAS AND ELECTRIC COMPANY
DIABLO CANYON NUCLEAR POWER PLANT, UNIT NO. 2
DOCKET NO. 50-323
AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No.62
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 October 18, 1990, 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. 62 , 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 is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

for Charles M. Trammell
James E. Dyer, Director
Project Directorate V
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: June 26, 1991

ATTACHMENT TO LICENSE AMENDMENT NOS. 63 AND 62

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

DOCKET NOS. 50-275 AND 50-323

Revise Appendix A Technical Specifications by removing the pages identified below and inserting the enclosed pages. The revised pages are identified by the captioned amendment number and contain marginal lines indicating the area of change. Overleaf pages are also included, as appropriate.

REMOVE

3/4 2-20

INSERT

3/4 2-20

POWER DISTRIBUTION LIMITS

SURVEILLANCE REQUIREMENTS

4.2.4.1 The QUADRANT POWER TILT RATIO shall be determined to be within the limit above 50% of RATED THERMAL POWER by:

- a. Calculating the ratio at least once per 7 days when the alarm is OPERABLE, and
- b. Calculating the ratio at least once per 12 hours during steady-state operation when the alarm is inoperable.

4.2.4.2 The QUADRANT POWER TILT RATIO shall be determined to be within the limit when above 75% of RATED THERMAL POWER with one Power Range channel inoperable by using the movable incore detectors to confirm that the normalized symmetric power distribution, obtained from the 4 pairs of symmetric thimble locations or from a full incore flux map per specification 3.3.3.2, is consistent with the indicated QUADRANT POWER TILT RATIO at least once per 12 hours.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 63 TO FACILITY OPERATING LICENSE NO. DPR-80
AND AMENDMENT NO. 62 TO FACILITY OPERATING LICENSE NO. DPR-82
PACIFIC GAS AND ELECTRIC COMPANY
DIABLO CANYON NUCLEAR POWER PLANT, UNIT NOS. 1 AND 2
DOCKET NOS. 50-275 AND 50-323

1.0 INTRODUCTION

By letter dated October 18, 1990, Pacific Gas and Electric Company proposed a change to the Technical Specifications (TS) for the Diablo Canyon Power Plant (DCPP) Units 1 and 2. The change to TS 3/4.2.4, "Quadrant Power Tilt Ratio" would permit the determination of the Quadrant Power Tilt Ratio (QPTR) by either a full incore flux map or by symmetric flux thimble measurement in the event that a single power range channel becomes inoperable above 75 percent of Rated Thermal Power (RTP). The existing DCPP TS permits only the use of four pairs of symmetric core thimbles in this situation. The proposed change would avoid reduction in plant load and subsequent adjustment of Nuclear Instrumentation System protection bistables in the event that one or more symmetric flux thimbles is unavailable for flux mapping.

2.0 EVALUATION

The excore detectors are the sensors for the Nuclear Instrumentation System (NIS). At greater than 50 percent RTP, the NIS continuously monitors the QPTR. It is important that changes do not go undetected and invalidate the radial power distribution assumed in the accident analyses. Excore detector inoperability is not a routine occurrence except for surveillance. Inoperability has occurred due to events such as the failure of electronic components.

The Moveable Incore Detector System, or Flux Mapping System, is used to measure the actual core power distribution. A full core map and a symmetric thimble map are two of the flux mapping methods referred to in the DCPP TS and plant procedures. The full incore map provides the most accurate representation of power distribution and is used for the monthly hot channel factor surveillance. By TS 3.3.3.2, at least 75 percent of the 58 neutron detector thimbles with a minimum of two detector thimbles per quadrant are required for a full core map. In a symmetric thimble map, eight of the core's fuel assemblies are monitored. This type of map is used to verify that the actual radial power distribution is consistent with the NIS-measured QPTR when one power range channel is inoperable above 75 percent RTP. All eight symmetric thimbles must be operable for the performance of a symmetric thimble map.

There is both industry and DCPP history of inoperable neutron detector thimbles for various reasons. If one of the eight symmetric thimbles were inoperable

and a power range channel were also inoperable, plant output would have to be reduced to 75 percent RTP. This would not be necessary if a full incore flux map were permitted in this situation.

The proposed change has previously been approved at other facilities and is also consistent with the Draft Revision 5 of the Westinghouse Standard Technical Specifications. The proposed change to permit QPTR determination by a full incore flux map as well as by symmetric thimble measurement is warranted because the full incore map is the most accurate method of determining core power distribution. Based on the above considerations, the Technical Specification change as proposed is acceptable.

4.0 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.

5.0 ENVIRONMENTAL CONSIDERATION

The 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 and change a surveillance requirement. 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. 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.

6.0 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 amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: M. Chatterton

Date: June 26, 1991