

June 8, 1987

Docket No. 50-275
and 50-323

Mr. J. D. Shiffer, Vice President
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c/o Nuclear Power Generation, Licensing
Pacific Gas and Electric Company
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SUBJECT: ISSUANCE OF AMENDMENT NO. 13 TO FACILITY OPERATING LICENSE NO. DPR-80 AND AMENDMENT NO. 11 TO FACILITY OPERATING LICENSE NO. DPR-82 DIABLO CANYON NUCLEAR POWER PLANT, UNIT NOS. 1 AND 2 (TAC NO. 64749 AND 64750)

Dear Mr. Shiffer:

The Commission has issued the enclosed Amendment No. 13 to Facility Operating License No. DPR-80 and Amendment No. 11 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 in response to your application transmitted by letter dated February 10, 1987.

These amendments allow replacement of fuel rods in fuel assemblies with filler rods or vacancies on a limited basis provided that such replacement is demonstrated to be acceptable by a cycle-specific reload analysis.

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

Sincerely,

Original signed by

Charles M. Trammell, Project Manager
Project Directorate V
Division of Reactor Projects - III/IV/V
& Special Projects

Enclosures:

1. Amendment No. 13 to DPR-80
2. Amendment No. 11 to DPR-82
3. Safety Evaluation

cc w/enclosures:
See next page

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PDR ADOCK 05000275
P PDR

DSRP/PD5
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5/21/87

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Diablo Canyon

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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. 13
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 February 10, 1987, 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 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.

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P PDR


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. 13, 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


for George W. Knighton, Director
Project Directorate V
Division of Reactor Projects - III/IV/V
& Special Projects

Attachment:
Changes to the Technical
Specifications

Date of Issuance: June 8, 1987



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. 11
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 February 10, 1987, 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 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.

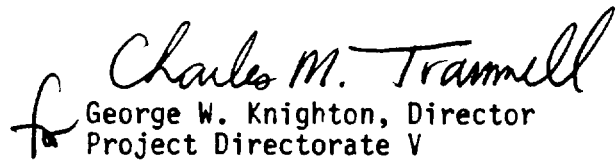
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-82 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 11, 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


George W. Knighton, Director
Project Directorate V
Division of Reactor Projects - III/IV/V
& Special Projects

Attachment:
Changes to the Technical
Specifications

Date of Issuance: June 8, 1987

June 8, 1987

ATTACHMENT TO LICENSE AMENDMENT NOS. 13 AND 11
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 area of change.

Remove

5 - 5

Insert

5 - 5

DESIGN FEATURES

DESIGN PRESSURE AND TEMPERATURE

5.2.2 Containment is designed and shall be maintained for a maximum internal pressure of 47 psig and a temperature of 271°F, coincident with a Double Design Earthquake.

5.3 REACTOR CORE

FUEL ASSEMBLIES

5.3.1 The core shall contain 193 fuel assemblies with each fuel assembly normally containing 264 fuel rods clad with Zircaloy-4 except that limited substitution of fuel rods by filler rods consisting of Zircaloy-4 or stainless steel or by vacancies may be made if justified by a cycle-specific reload analysis. Each fuel rod shall have a nominal active fuel length of 144 inches. The initial core loading shall have a maximum enrichment of 3.15 weight percent U-235. Reload fuel shall be similar in physical design to the initial core loading and shall have a maximum enrichment of 4.5 weight percent U-235.

CONTROL ROD ASSEMBLIES

5.3.2 The reactor core shall contain 53 full length and no part length control rod assemblies. The full length control rod assemblies shall contain a nominal 142 inches of absorber material. The nominal values of absorber material shall be 80% silver, 15% indium, and 5% cadmium. All control rods shall be clad with stainless steel tubing.

5.4 REACTOR COOLANT SYSTEM

DESIGN PRESSURE AND TEMPERATURE

5.4.1 The Reactor Coolant System is designed and shall be maintained:

- a. In accordance with the Code requirements specified in Section 5.2 of the FSAR, with allowance for normal degradation pursuant to the applicable Surveillance Requirements,
- b. For a pressure of 2485 psig, and
- c. For a temperature of 650°F, except for the pressurizer which is 680°F.

VOLUME

5.4.2 The total water and steam volume of the Reactor Coolant System is 12,811 ± 100 cubic feet at a nominal T_{avg} of 576°F for Unit 1 and 12,903 ± 100 cubic feet at a nominal T_{avg} of 577°F for Unit 2.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 13 TO FACILITY OPERATING LICENSE NO. DPR-80
AND AMENDMENT NO. 11 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 February 10, 1987, Pacific Gas and Electric Company (PG&E or the licensee) requested amendments to the Technical Specifications appended to Facility Operating License Nos. DPR-80 and DPR-82 for the Diablo Canyon Nuclear Power Plant, Unit Nos. 1 and 2. The proposed amendments would allow replacement of fuel rods in fuel assemblies with filler rods or vacancies on a limited basis.

The proposed changes involve Technical Specification 5.3.1, "Design Features-Fuel Assemblies." The first sentence of Technical Specification 5.3.1 for each unit currently states "The core shall contain 193 fuel assemblies with each fuel assembly containing 264 fuel rods clad with Zircaloy-4." The proposed revision for each unit would remove the period at the end of this sentence and add "except that limited substitution of fuel rods by filler rods consisting of Zircaloy-4 or stainless steel or by vacancies may be made if justified by a cycle-specific reload analysis."

On April 2, 1987, the licensee orally agreed to a minor word change in the proposed Technical Specification. This clarification did not alter the staff initial determination of, or the substance of, the application noticed in the Federal Register on April 22, 1987.

2.0 EVALUATION

The intent of the proposed change to the Diablo Canyon, Technical Specifications is to allow for the reduction in the number of fuel rods per assembly in cases where leaking fuel rods can be identified and replaced with Zircaloy-4 or stainless steel rods or vacancies. Replacement of leaking fuel rods will permit utilization of the energy remaining in fuel assemblies containing defective fuel rods.

In general, substitution of a limited number of fuel rods with fillers rods or water holes has a negligible effect on core physics parameters and consequently on the safety analysis. The licensee states that in each reload core the reconstituted assemblies will be evaluated using standard reload analysis methods. The reload analysis will ensure that the safety criteria and design limits, including peaking factors and core average linear heat rate effects, are not exceeded. Thus, the final safety evaluation of implementation of substitutions allowed by this change will be made as part of the reload analysis performed for the affected cycle.

We had earlier approved a similar request for a change to Technical Specification 5.3.1 with slightly different wording than proposed by the licensee which we prefer and wish to standardize. This wording is "The reactor core shall contain 193 fuel assemblies with each fuel assembly normally containing 264 fuel rods clad with Zircaloy-4, except that limited substitution of fuel rods by fillers rods consisting of Zircaloy-4 or stainless steel or by vacancies may be made if justified by a cycle specific reload analysis." This wording was discussed with the PG&E staff and they orally agreed on April 2, 1987. With this modification, which only inserts the word "normally" into the wording proposed by the licensee, we find the proposed change acceptable.

Because the limited substitution of Zircaloy-4 or stainless steel rods or vacancies for fuel rods is not expected to have a significant impact on the safety analysis, and because a cycle-specific evaluation will be performed to justify any such substitutions, we find the proposed Technical Specification change for Diablo Canyon, Units 1 and 2, with the modification as discussed above, acceptable.

3.0 ENVIRONMENTAL CONSIDERATION

These amendments involve changes in the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. 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, the amendments meets 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 CONTACT WITH STATE OFFICIAL

The NRC staff has advised the Chief of the Radiological Health Branch, State Department of Health Services, State of California, of the proposed determination of no significant hazards consideration. No comments were received.

5.0 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 to the health and safety of the public.

Principal Contributor: M. Dunenfeld

Dated: June 8, 1987