

October 30, 1997

Mr. Gregory M. Rueger, Senior Vice President  
and General Manager  
Pacific Gas and Electric Company  
Nuclear Power Generation N9B  
P. O. Box 770000  
San Francisco, California 94177

SUBJECT: ENVIRONMENTAL ASSESSMENT OF REQUEST FOR EXEMPTION FROM 10 CFR 70.24  
CRITICALITY ACCIDENT REQUIREMENTS - DIABLO CANYON POWER PLANT,  
UNITS 1 AND 2 (TAC NOS. M98425 AND M98426)

Dear Mr. Rueger:

Enclosed for your information is a copy of an "Environmental Assessment and Finding of No Significant Impact." This assessment relates to your application dated April 3, 1997, as supplemented by letter dated August 4, 1997, which requested an exemption from certain requirements of 10 CFR 70.24, "Criticality Accident Requirements."

The assessment is being forwarded to the Office of the Federal Register for publication.

Sincerely,

Original Signed By

Steven D. Bloom, Project Manager  
Project Directorate IV-2  
Division of Reactor Projects - III/IV  
Office of Nuclear Reactor Regulation

Docket Nos. 50-275  
and 50-323

Enclosure: Environmental Assessment

cc w/encl: See next page

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UNITED STATES NUCLEAR REGULATORY COMMISSION  
PACIFIC GAS AND ELECTRIC COMPANY  
DOCKET NOS. 50-275 AND 50-323  
DIABLO CANYON POWER PLANT UNITS 1 AND 2  
ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT

The U.S. Nuclear Regulatory Commission (the Commission) is considering issuance of an exemption from certain requirements of its regulations for Facility Operating License Nos. DPR-80 and DPR-82, issued to Pacific Gas and Electric Company (the licensee), for operation of the Diablo Canyon Power Plant (DCPP), Units 1 and 2, located in San Luis Obispo County, California.

ENVIRONMENTAL ASSESSMENT

Identification of Proposed Action:

The proposed action would exempt Pacific Gas and Electric Company from the requirements of 10 CFR 70.24, which requires in each area in which special nuclear material is handled, used, or stored, a monitoring system that will energize clear audible alarms if accidental criticality occurs. The proposed action would also exempt the licensee from the requirements to maintain emergency procedures for each area in which this licensed special nuclear material is handled, used, or stored to ensure that all personnel withdraw to an area of safety upon the sounding of the alarm, to familiarize personnel with the evacuation plan, and to designate responsible individuals for determining the cause of the alarm, and to place radiation survey instruments in accessible locations for use in such an emergency.

The proposed action is in accordance with the licensee's application for exemption dated April 3, 1997, as supplemented by letter dated August 4, 1997.

The Need for the Proposed Action:

The purpose of 10 CFR 70.24 is to ensure that if a criticality were to occur during the handling of special nuclear material, personnel would be alerted to that fact and would take appropriate action. At a commercial nuclear power plant the inadvertent criticality with which 10 CFR 70.24 is concerned could occur during fuel handling operations. The special nuclear material that could be assembled into a critical mass at a commercial nuclear power plant is in the form of nuclear fuel; the quantity of other forms of special nuclear material that is stored on site in any given location is small enough to preclude achieving a critical mass. Because the fuel is not enriched beyond 5.0 weight percent uranium-235 and because commercial nuclear plant licensees have procedures and design features that prevent inadvertent criticality, the staff has determined that it is unlikely that an inadvertent criticality could occur due to the handling of special nuclear material at a commercial power reactor. The requirements of 10 CFR 70.24, therefore, are not necessary to ensure the safety of personnel during the handling of special nuclear materials at commercial power reactors.

Environmental Impacts of the Proposed Action:

The Commission has completed its evaluation of the proposed action and concludes that inadvertent or accidental criticality will be precluded through compliance with the Diablo Canyon Power Plant, Units 1 and 2 Technical Specifications, the design of the fuel storage racks providing geometric spacing of fuel assemblies in their storage locations, and administrative controls imposed on fuel handling procedures.

The proposed exemption would not result in an increase in the probability or consequences of accidents, affect radiological plant effluents, or cause any significant occupational exposures. Therefore, there are no radiological impacts associated with the proposed exemption.

The proposed exemption does not result in a change in non-radiological effluents and will have no other non-radiological environmental impact.

Accordingly, the Commission concludes that there are no significant environmental impacts associated with the proposed action.

Alternatives to the Proposed Action:

Since the Commission has concluded that there is no measurable environmental impact associated with the proposed action, any alternatives with equal or greater environmental impact need not be evaluated. As an alternative to the proposed exemption, the staff considered denial of the requested exemption. Denial of the request would result in no change in current environmental impacts. The environmental impacts of the proposed action and the alternative action are similar.

Alternative Use of Resources:

This action does not involve the use of any resources not previously considered in the Final Environmental Statements for the Diablo Canyon Power Plant dated May 1973.

Agencies and Persons Consulted:

In accordance with its stated policy, on October 6, 1997, the staff consulted with the California State official, Mr. Steve Hsu of the Radiologic Health Branch of the State Department of Health Services, regarding the environmental impact of the proposed action. The State official had no comments.

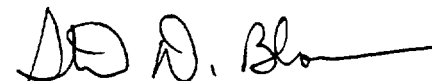
FINDING OF NO SIGNIFICANT IMPACT

Based upon the environmental assessment, the Commission concludes that the proposed action will not have a significant effect on the quality of the human environment. Accordingly, the Commission has determined not to prepare an environmental impact statement for the proposed action.

For further details with respect to the proposed action, see the licensee's letter dated April 3, 1997, and supplemental letter dated August 3, 1997, which are available for public inspection at the Commission's Public Document Room, which is located at The Gelman Building, 2120 L Street, NW., Washington, D. C., and at the local public document room located at the California Polytechnic State University, Robert E. Kennedy Library, Government Documents and Maps Department, San Luis Obispo, California 93407.

Dated at Rockville, Maryland, this 30th day of October 1997.

FOR THE NUCLEAR REGULATORY COMMISSION

  
Steven D. Bloom, Project Manager  
Project Directorate IV-2  
Division of Reactor Projects - III/IV  
Office of Nuclear Reactor Regulation