Enclosure
PG&E Letter DCL-96-115

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of PACIFIC GAS AND ELECTRIC COMPANY	)	Docket No. 50-275 Facility Operating License No. DPR-80
Diablo Canyon Power Plant Units 1 and 2	)	Docket No. 50-323 Facility Operating License No. DPR-82

License Amendment Request No. 96-08

Pursuant to 10 CFR 50.90, Pacific Gas and Electric Company hereby applies to amend its Diablo Canyon Power Plant Facility Operating License Nos. DPR-80 and DPR-82 (Licenses). The proposed changes amend the Technical Specifications (TS) (Appendix A of the Licenses) regarding TS 3/4.9.14.1, "Spent Fuel Assembly Storage - Spent Fuel Pool Region 2," and TS 3/4.9.14.3, "Spent Fuel Assembly Storage - Spent Fuel Pool Region 1."

Information on the proposed changes is provided in Attachments A, B, and C. These changes have been reviewed and do not involve a significant hazards consideration as defined in 10 CFR 50.92. These changes also do not require an environmental assessment in accordance with 10 CFR 51.22(b). Further, there is reasonable assurance that the health and safety of the public will not be adversely affected by the proposed changes.

Sincerely,

Lawrence F. Womack

Subscribed and sworn to before me
this ~~7th~~ 11TH day of June 1996
~~County of San Luis Obispo~~
State of California

Notary Public

D. GENA JEE
Commission # 1067005
Notary Public — California
SAN FRANCISCO COUNTY
My Comm. Expires JUL 30, 1999

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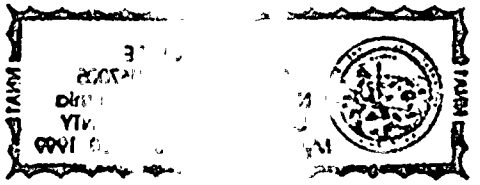

REVISION OF TECHNICAL SPECIFICATIONS 3/4.9.14.1 AND 3/4.9.14.3 - CHECKERBOARD PATTERN STORAGE OF FUEL ASSEMBLIES IN SPENT FUEL POOL REGION 2

A. DESCRIPTION OF AMENDMENT REQUEST

This license amendment request (LAR) proposes to change Technical Specification (TS) 3/4.9.14.1, "Spent Fuel Assembly Storage - Spent Fuel Pool Region 2," and TS 3/4.9.14.3, "Spent Fuel Assembly Storage - Spent Fuel Pool Region 1."

1. TS 3.9.14.1 would be revised to allow fuel assembly storage in a checkerboard pattern in spent fuel pool (SFP) region 2 with water or non-fissile material in the alternate cells and no burnup restrictions.

2. TS 3.9.14.3, Action a., would be revised to require compliance with either TS 3.9.14.3 (SFP region 1) or TS 3.9.14.1 (SFP region 2) fuel storage configuration requirements.

Changes to the TS are noted in the marked-up copy of the applicable TS pages provided in Attachment B. The proposed TS pages are provided in Attachment C.

B. BACKGROUND

On February 6, 1995, PG&E submitted LAR 95-01 to the NRC via PG&E Letter DCL-95-028. LAR 95-01 proposed a revision to the TS to allow the storage of fuel assemblies of up to 5.0 weight percent U-235 in specified configurations in SFP region 1, or in SFP region 2 if specified minimum burnup limits were met. The analyses for LAR 95-01 included in PG&E Letter DCL-95-028 also noted the acceptability of fuel assembly storage in a checkerboard pattern in SFP region 2 for fresh (non-burned) fuel; however, LAR 95-01 did not originally propose to include SFP region 2 checkerboarding in the TS.

A supplemental letter dated March 23, 1995 (PG&E Letter DCL-95-063), provided the response to an NRC request for additional information on LAR 95-01. The supplemental letter also included replacement TS markup pages for LAR 95-01 to propose allowing SFP region 2 checkerboarding for fuel that did not meet the minimum burnup requirements of TS Figure 3.9-2. The proposed changes were evaluated as part of the review of LAR 95-01 and determined to be acceptable as documented in the NRC's safety evaluation for

License Amendment (LA) 104 and 103. In addition, the no significant hazards evaluation for LAR 95-01, as published in the Federal Register (60 FR 11138), bounded the request to allow checkerboarding in SFP region 2. However, the replacement TS markups were inadvertently not included in the revised TS pages issued by the NRC in LA 104 and 103 for Diablo Canyon Power Plant Units 1 and 2, dated June 7, 1995. Also, the Federal Register notice did not specifically identify the change to allow SFP region 2 checkerboarding. Therefore, it has been decided to submit this new LAR to specifically notice this change in the Federal Register.

C. JUSTIFICATION

The proposed changes to the TS specify the requirements for acceptable storage of fuel assemblies, and provide assurance that the fuel will remain subcritical. Including the option in the TS for checkerboarding low burnup fuel in SFP region 2 allows operational flexibility in fuel movement and storage within the SFP. The changes proposed in this LAR were previously evaluated by the NRC during the review of LAR 95-01. Checkerboarding of region 2 was determined to meet the NRC criticality acceptance criterion of k_{eff} less than 0.95 defined in the NRC Standard Review Plan, Section 9.1.1, as indicated in the safety evaluation issued with LA 104 and 103.

D. SAFETY EVALUATION

The current analysis supporting storage of up to 5.0 weight percent U-235 fuel assemblies in SFP region 2 was initially submitted to the NRC as Attachment F to LAR 95-01 (PG&E Letter DCL-95-028 dated February 6, 1995). The analysis was updated with revisions that did not affect the conclusions of the analysis in PG&E Letter DCL-95-063 dated March 23, 1995 (Revision 1), PG&E Letter DCL-95-112 dated May 22, 1995 (Revision 2), and PG&E Letter DCL-95-178 dated August 22, 1995 (Revision 3).

The analysis indicated that fuel storage in SFP region 2 is acceptable (k_{eff} less than 0.95) provided the reactivity is low due to either low initial enrichment or sufficient burnup (reference TS Figure 3.9-2 and analysis Figure 1). Alternatively, the region 2 analysis noted that a checkerboard arrangement with empty cells (i.e., cells filled only with water or non-fissile bearing material) acceptably meets the NRC criterion of maintaining k_{eff} less than 0.95.

With the change to allow low burnup fuel storage in a checkerboard pattern in region 2 of the SFP, the possibility would exist for incorrectly placing a fuel assembly in an SFP location intended to remain empty. However, analysis indicates that the maximum k_{eff} would remain below 0.95 even with the incorrectly placed fuel assembly, assuming credit for soluble boron as allowed

for accident condition analyses. Therefore, fuel assembly misplacement would not cause an inadvertent criticality or any other accident.

E. NO SIGNIFICANT HAZARDS

PG&E has evaluated the no significant hazards considerations involved with the proposed amendment, focusing on the three standards set forth in 10 CFR 50.92(c) as quoted below:

> *"The Commission may make a final determination, pursuant to the procedures in paragraph 50.91, that a proposed amendment to an operating license for a facility licensed under paragraph 50.22 or a testing facility involves no significant hazards consideration, if operation of the facility in accordance with the proposed amendment would not:*
>
> *(1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or*
>
> *(2) Create the possibility of a new or different kind of accident from any accident previously evaluated; or*
>
> *(3) Involve a significant reduction in a margin of safety."*

The following evaluation is provided for the no significant hazards considerations.

1. *Does the change involve a significant increase in the probability or consequences of an accident previously evaluated?*

   Analysis indicates that allowing fuel storage in a checkerboard pattern with empty storage cells in region 2 of the spent fuel pool will not result in an inadvertent criticality event. The k_{eff} will continue to remain below 0.95 as required to meet the acceptance criteria in the NRC Standard Review Plan, Section 9.1.1.

   Therefore, the proposed changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. *Does the change create the possibility of a new or different kind of accident from any accident previously evaluated?*

   The change to allow fuel storage in a checkerboard pattern with no minimum burnup requirements in region 2 of the spent fuel pool would

designate locations where a fuel assembly could be incorrectly placed. However, the incorrect placement of a fuel assembly has been analyzed and would not cause an inadvertent criticality or any other accident.

Therefore, the proposed changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. *Does the change involve a significant reduction in a margin of safety?*

The NRC Standard Review Plan, Section 9.1.1, acceptance criterion of a k_{eff} of 0.95 provides the margin to criticality. An analysis was performed that concluded that the proposed change to allow fuel storage in spent fuel pool region 2 in a checkerboard pattern meets the acceptance criterion.

Therefore, the proposed changes do not involve a significant reduction in a margin of safety.

F. NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

Based on the above evaluation, PG&E concludes that the changes associated with this LAR satisfy the no significant hazards consideration standards of 10 CFR 50.92(c). Accordingly, a no significant hazards finding is justified.

G. ENVIRONMENTAL EVALUATION

PG&E has evaluated the proposed changes and determined that the changes do not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluent that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed changes meet the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), an environmental assessment of the proposed changes is not required.