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SUBJECT: Provides util response to RAI contained in NRC ltr dtd
961212 re engineering calculation for emergency lighting
& communications.

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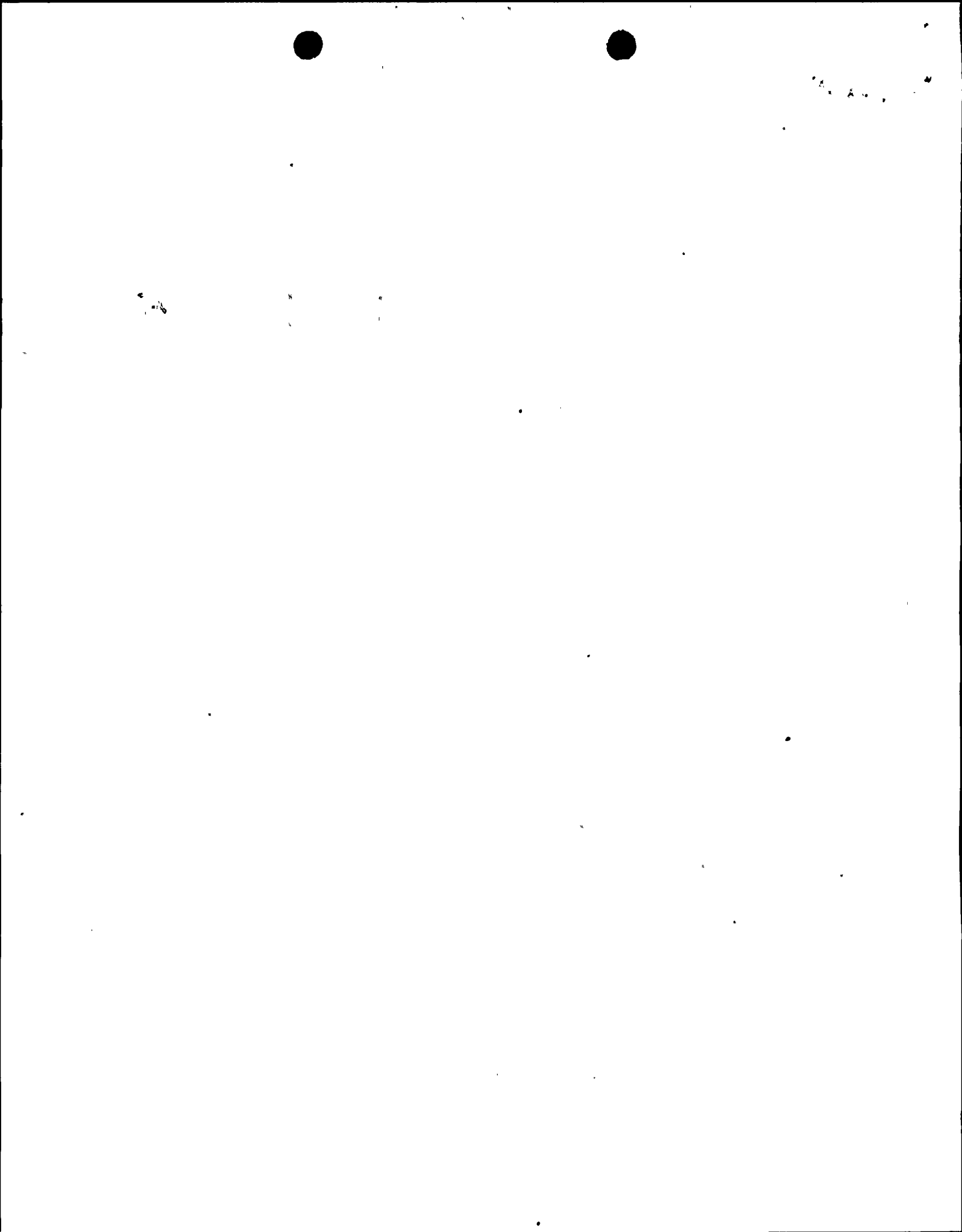
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Lawrence F. Womack
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February 7, 1997

PG&E Letter DCL-97-016



U.S. Nuclear Regulatory Commission
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Docket No. 50-275, OL-DPR-80
Docket No. 50-323, OL-DPR-82
Diablo Canyon Units 1 and 2
Response to Request for Additional Information Concerning Diablo Canyon
Engineering Calculation for Emergency Lighting and Communications

Dear Commissioners and Staff:

This letter provides PG&E's response to a request for additional information contained in NRC letter dated December 12, 1996. The NRC staff requested additional information resulting from its review of the following PG&E calculations:

1. Calculation 335-DC, "10 CFR 50, Appendix R, Emergency Lighting and Communications," Revisions 2, 3, and 4, submitted by PG&E Letters DCL-95-132, dated June 23, 1995, DCL-96-002 dated January 11, 1996, and DCL-96-120, dated May 24, 1996, respectively.
2. Appendix A of Calculation M-928, "Evaluation of Operator Access/Egress in Affected Fire Area," submitted by PG&E Letter DCL-96-171, dated August 8, 1996.
3. Calculation M-944, "10 CFR 50 Appendix R, Alternate Shutdown Methodology - Time and Manpower Study/Safe Shutdown System Considerations," also submitted by PG&E Letter DCL-96-171, dated August 8, 1996.

The requested additional information is enclosed.

Sincerely,

A handwritten signature in black ink, appearing to read 'Lawrence F. Womack', written over a horizontal line.

Lawrence F. Womack

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February 7, 1997
Page 2

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Enclosure

JER/1167



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PG&E response to NRC Request for Additional Information, Dated December 12, 1996, Concerning PG&E's Engineering Calculation for Emergency Lighting and Communications

Background

By letter dated December 12, 1996, the NRC staff requested additional information resulting from its review of the following PG&E calculations:

1. Calculation 335-DC, "10 CFR 50, Appendix R, Emergency Lighting and Communications," Revisions 2, 3, and 4, submitted by PG&E Letters DCL-95-132, dated June 23, 1995; DCL-96-002 dated January 11, 1996; and DCL-96-120, dated May 24, 1996; respectively.
2. Appendix A of Calculation M-928, "Evaluation of Operator Access/Egress in Affected Fire Area," submitted by PG&E Letter DCL-96-171, dated August 8, 1996.
3. Calculation M-944, "10 CFR 50 Appendix R, Alternate Shutdown Methodology - Time and Manpower Study/Safe Shutdown System Considerations," also submitted by PG&E Letter DCL-96-171, dated August 8, 1996.

The NRC letter documented two requests for additional information regarding compliance with emergency lighting requirements (Section III.J of 10 CFR 50, Appendix R) and requested a response within 60 days of receipt of the letter.

NRC Request for Additional Information No.1

"Describe the specific actions that have been taken to resolve the emergency lighting issues discussed in the NRC safety evaluation for Diablo Canyon Power Plant, Units 1 and 2, dated May 5, 1995."

PG&E Response

By letter dated May 9, 1995 (PG&E Letter DCL-95-104), PG&E responded to NRC letter dated May 5, 1995, which denied PG&E's request to deviate from the technical requirements of 10 CFR 50, Appendix R, Section III.J. In the May 9 letter, PG&E committed to "install battery-operated lights (BOLs) in access and egress pathways as expeditiously as possible, but no later than the end of the seventh refueling outages for Units 1 and 2." Design Change Package (DCP) E-49199 installed 24 BOLs in the Unit 1 access/egress areas during the Unit 1 seventh refueling outage, and DCP E-50199 installed 11 BOLs in the Unit 2 access/egress areas during the Unit 2 seventh refueling outage. These were all



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the access/egress areas of concern identified in PG&E's deviation request letters dated March 15, 1994, and May 25, 1994. The BOL location and numbers were subsequently added into Rev. 3 (Unit 1 BOLs), and Rev. 4 (Unit 2 BOLs) of Calculation 335-DC. With the completion of DCPs E-49199 and E-50199, emergency lighting (BOLs, emergency ac and dc lighting) is adequately provided in all areas of the plant needed for operation of safe shutdown equipment and for access and egress routes thereto.

NRC Request for Additional Information No.2:

"Confirm that emergency lighting units with at least 8-hour battery power supply have been provided for Diablo Canyon Power Plant, Units 1 and 2 in all areas needed for operation of safe shutdown equipment and in access and egress routes thereto."

PG&E Response

Emergency lighting (either 8-hour battery lights, emergency ac lights, or emergency dc lights) is provided in all areas where operator actions are performed and in access/egress routes thereto. Because the emergency ac and dc lights are not fixed 8-hour battery lights, a deviation to credit emergency ac and dc lighting was submitted and accepted by the NRC in Supplement Nos. 23 and 31 of PG&E's Safety Evaluation Report. Calculation M-928 documents the method of achieving safe shutdown for each fire area. Calculation M-928 also identifies the operator actions which may be required to achieve safe shutdown. Calculation 335-DC also lists the operator actions, and documents the location of these potential operator actions and the access/egress pathways thereto. Calculation 335-DC identifies the type of emergency lighting credited for each operator action and the access/egress pathways to the area where the action is performed. By procedure, any future changes to the safe shutdown analysis and operator actions (M-928) will require a review of 335-DC to maintain adequacy of emergency lighting.

As a result of the safe shutdown analysis, evaluation has shown that a fire in any of 14 areas may require an operator to access into or egress through the affected fire area and perform operator actions, if fire damage to safe shutdown circuits occurs. Appendix A of Calculation M-928 evaluates the acceptability of entering a fire area and performing the operator action within the required time frame. Entrance into the affected fire area will not be required until one hour after the fire. The one hour time frame for operator actions is consistent with other utility safety evaluation report approvals.

The permanently installed 8-hour emergency lighting located in the affected area may be damaged by the fire. Because of this, a contingency plan was credited to use portable hand held lights (flashlights) to supplement the nondamaged lighting in the affected fire area.

