

# PRIORITY 1

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SUBJECT: Forwards Rev 2 to Calculation 335-DC, "10CFR50 App R  
 Emergency Lighting & Communications," & rept re emergency AC  
 & DC lighting at Diablo Canyon plant.

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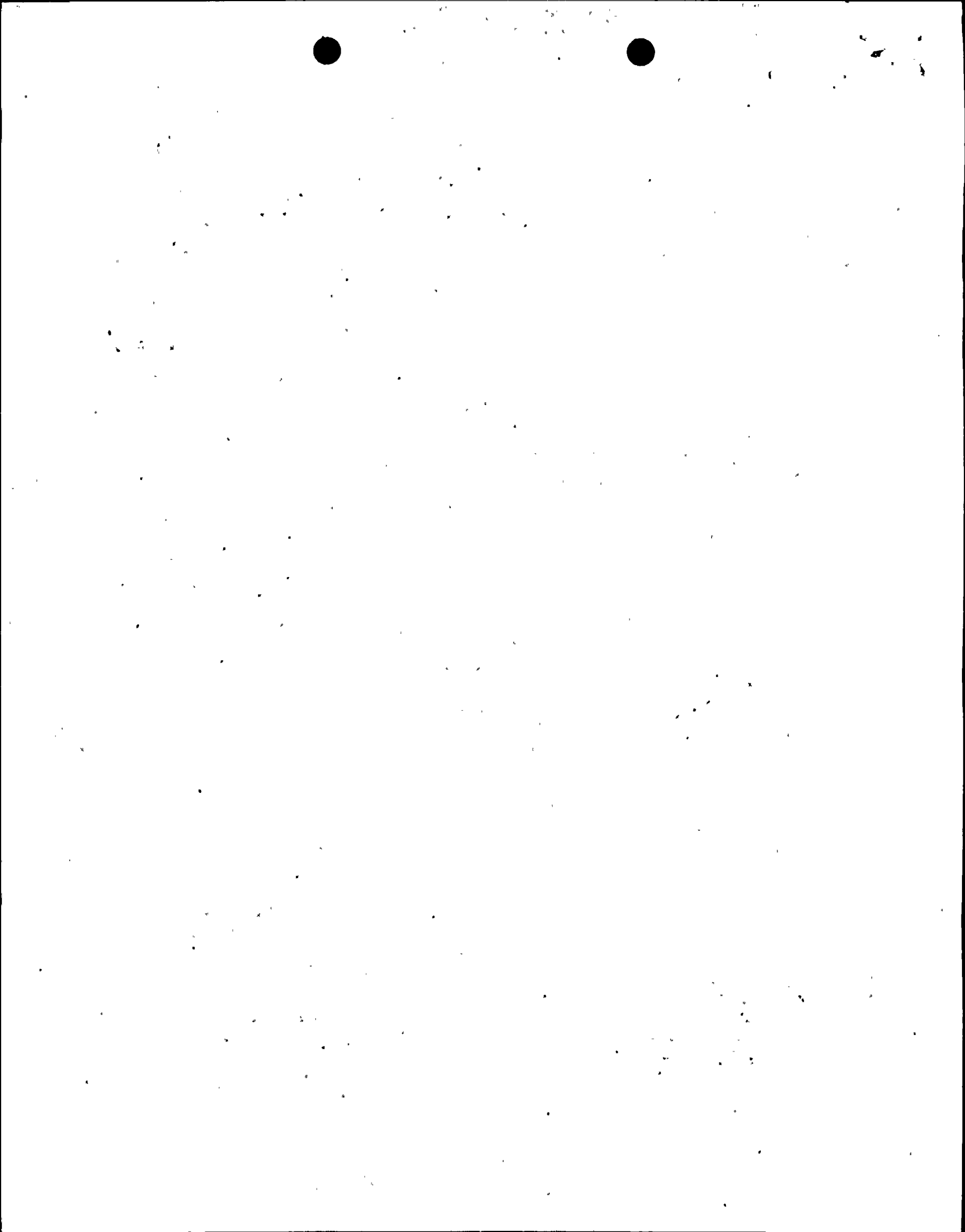
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June 23, 1995

PG&E Letter DCL-95-132

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  
Engineering Calculation for Emergency Lighting and Communications

Gentlemen:

Pursuant to NRC Staff requests that were made during telephone conference calls on June 7 and June 15, 1995, the following documents are enclosed:

Enclosure 1 - A report titled "Emergency AC and DC Lighting"

Enclosure 2 - Calculation No. 335-DC, Revision 2, "10 CFR 50  
Appendix R Emergency Lighting and Communications"

Enclosure 1 provides explanatory information regarding the calculation and identifies eight new fire areas that are credited as using AC or DC lights for emergency lighting.

Sincerely,



Warren H. Fujimoto

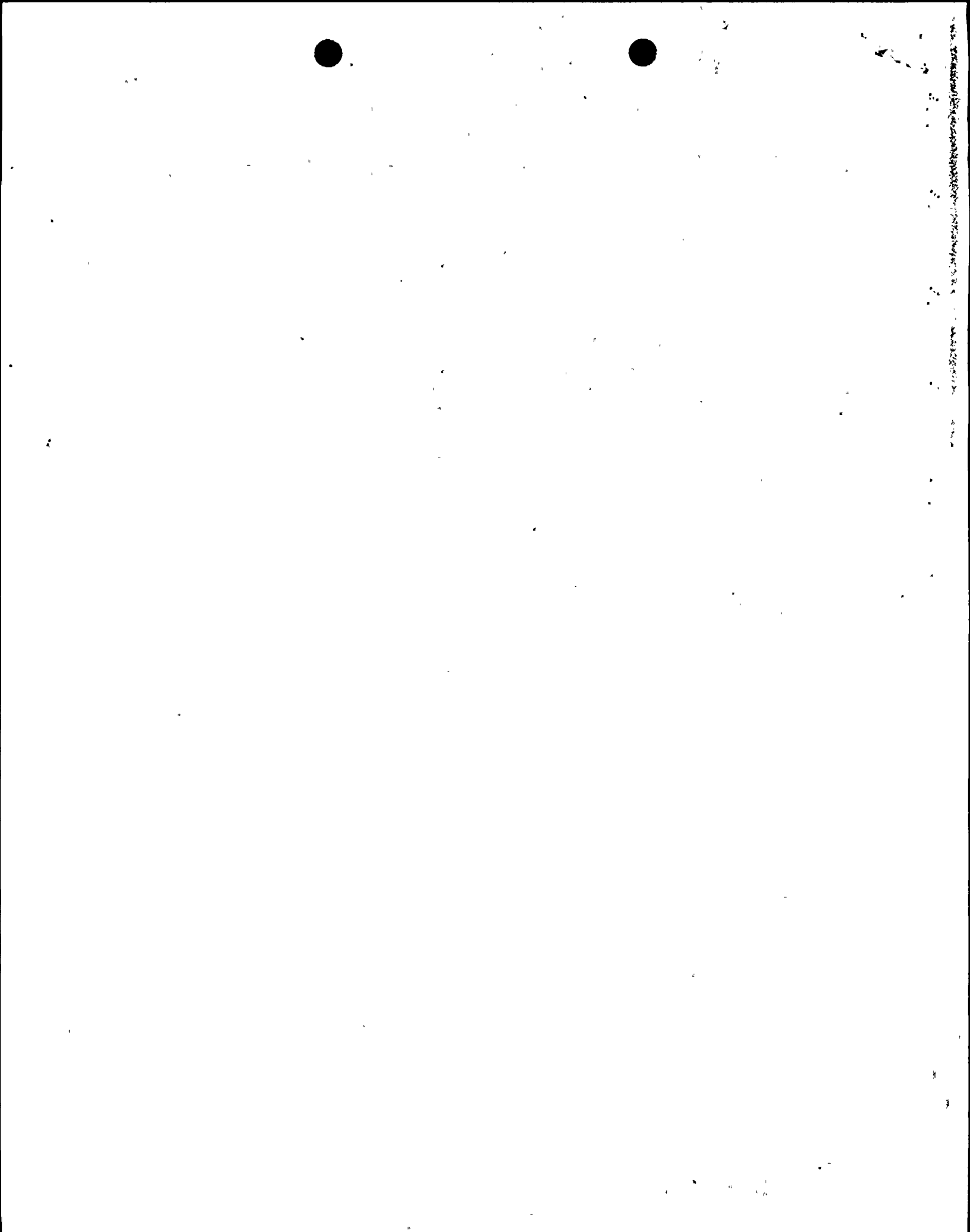
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Enclosures

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ENCLOSURE 1

EMERGENCY AC AND DC LIGHTING  
DIABLO CANYON POWER PLANT

Introduction

This report provides information on:

- Calculation No. 335-DC, Revision 2, "10 CFR 50 Appendix R Emergency Lighting and Communications" (Enclosure 2).
- Eight new areas that currently credit emergency AC and DC lighting that were not previously credited in the original emergency lighting analysis performed in 1983 and 1984.

Background

Section III.J of 10 CFR 50, Appendix R, requires that "emergency lighting units with at least an 8-hour battery power supply shall be provided in all areas needed for operation of safe shutdown equipment, and in access/egress routes thereto." By letters dated November 3, 1983, April 17, 1984, and December 4, 1984, PG&E requested a deviation from the requirements of Section III.J of 10 CFR 50, Appendix R, for Diablo Canyon Power Plant, Units 1 and 2. The deviation requested approval for the use of emergency AC and DC lighting in certain access/egress areas. The deviation request was approved in Supplemental Safety Evaluation Reports (SSERs) 23 and 31.

In 1994, PG&E completed a reverification of the original Appendix R safe shutdown analysis (this included an emergency lighting analysis) as a corrective action for a nonconformance and identified additional manual actions required to achieve hot shutdown conditions. Upon reviewing PG&E's original licensing commitments (1983 and 1984) against the results of the Appendix R reverification, it was determined that eight new areas now credit emergency AC or DC lighting systems that were not previously approved in SSERs 23 and 31. These eight areas were discussed with the NRC, and PG&E was requested to submit the 1994 emergency lighting analysis for NRC review. In response to this request, PG&E Calculation No. 335-DC, "10 CFR 50 Appendix R Emergency Lighting and Communications," is provided as Enclosure 2 of this submittal.

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**Calculation No. 335-DC**

Revision 2 of Calculation No. 335-DC does not reflect PG&E's recent commitment to install battery operated lights (BOLs) by the next refueling outage for each unit. Calculation No. 335-DC will be updated to identify the new BOLs installations (DCL-95-104). Upon installation of the BOLs, full compliance with Section III.J will be achieved for these access/egress areas.

**Eight Areas that Credit Emergency AC and DC Lights**

These eight access/egress areas are listed in the table of this enclosure for NRC review. The eight (8) areas were identified by reviewing the emergency AC and DC lights credited in Calculation No. 335-DC, the installation of the new BOLs, and the emergency AC and DC lights that were approved by the NRC in PG&E's deviation requests submitted in 1983 and 1984. PG&E believes that the AC and DC lighting will provide an acceptable level equivalent to that provided by the technical requirements of Section III.J.





## ENCLOSURE 1

### ADDITIONAL AREAS THAT CREDIT EMERGENCY AC AND DC LIGHTING

Unit	#	Access/Egress Pathway	Postulated Fire Zone/Area Requiring Operator Action	Type of Lighting Credited for Access/Egress
Unit 1	1	3-H-1 (CCP Rm)	7A (Cable Spreading Rm) 8C (Control Rm)	AC lights
	2	3BB-115' (Pen. Area, Elev. 115')	5A2 ("G" 480V Swgr Rm) 6A2 ("G" DC Pnl Rm)	AC lights
			5A3 ("H" 480 V Swgr Rm) 6A3 ("H" DC Pnl Rm)	AC lights
			5A1 ("F" 480 V Swgr Rm) 6A1 ("F" DC Pnl Rm)	AC lights
	3	3R (Spent Fuel Pool)	3AA (Aux Bldg, El. 115)	AC lights
4	14-D (Turb Bldg., Elev. 140')	3AA(Aux Bldg, El. 115') 3H1 (CCP Rm) 3J2 (CCW Pp 1-2 Rm) 3J3 (CCW Pp 1-3 Rm) 4A (Aux. Bldg, Chem Lab) 4A2 (H Bus Compartment) 5A1 (" F" 480V Swgr Rm) 5A2 ("G" 480 Swgr Rm) 5A3 ("H" 480 V Swgr Rm) 6A1 ("F" DC Pnl Rm) 6A2 ("G" DC Pnl Rm) 6A3 ("H" DC Pnl Rm) 12A ("F" 4kV Cab Spd Rm) 12B ("G" 4kV Swgr Rm) 12C ("H" 4kV Swgr Rm) 13A ("F" 4kV Swgr Rm) 13B ("G" 4kV Swgr Rm) 13C ("H" 4kV Swgr Rm) 13D (Excitation Swgr Rm) 30A1 (ASW Pp 1-1 Rm) 30A2 (ASW Pp 1-2 Rm)	DC lights	
5	14-A (Turb. Bldg, 119' Elev.)	12E Isophase Rm	DC lights	



## ENCLOSURE 1

### ADDITIONAL AREAS THAT CREDIT EMERGENCY AC AND DC LIGHTING

Unit	#	Access/Egress Pathway	Postulated Fire Zone/Area Requiring Operator Action	Type of Lighting Credited for Access/Egress
Unit 2	6	19-D (Turb. Bldg, 140' Elev.)	3AA(Aux Bldg, El. 115') 3K2 (CCW Pp 2-2 Rm) 3K3 (CCW Pp 2-3 Rm) 4B (Access Control) 4B2 (H Bus Compartment) 5B1 (" F" 480V Swgr Rm) 5B2 ("G" 480 Swgr Rm) 5B3 ("H" 480 V Swgr Rm) 6B1 ("F" DC Pnl Rm) 6B2 ("G" DC Pnl Rm) 6B3 ("H" DC Pnl Rm) 23A ("F" 4kV Cab Spd Rm) 23B ("G" 4kV Swgr Rm) 23E (Isophase Rm) 24A ("F" 4kV Swgr Rm) 24B ("G" 4kV Swgr Rm) 30A3 (ASW Pp 2-1 Rm) 30A4 (ASW Pp 2-2 Rm)	DC lights
	7	19-A (Turb. Bldg, 100' elev.)	24D (Excitation Swgr Rm)	DC lights
	8	23E (Isophase Rm)	24D (Excitation Swgr Rm)	DC lights



ENCLOSURE 2

**CALCULATION NO. 335-DC, REVISION 2, "10 CFR 50 APPENDIX R  
EMERGENCY LIGHTING AND COMMUNICATIONS"  
(142 Pages Total)**

