

**NRC DISTRIBUTION FOR PART 50 DOCKET MATERIAL
(TEMPORARY FORM)**

CONTROL NO: 12354

FILE: _____

FROM: Pacific Gas & Elec. Co. San Francisco, Calif. 94106 Philip A. Crane		DATE OF DOC 10-21p75	DATE REC'D 10-24-75	LTR XX	TWX	RPT	OTHER
TO: Mr. O. P. Parr		ORIG 1 signed	CC	OTHER	SENT NRC PDR <u>XX</u>		SENT LOCAL PDR <u>XX</u>
CLASS	UNCLASS XXX	PROP INFO	INPUT	NO CYS REC'D 1	DOCKET NO: <u>50-275/323</u>		
DESCRIPTION: Ltr re our 7-11-75 ltr... furnishing addl info concerning protection against tornado-generated missiles at Diablo Canyon....				ENCLOSURES:			
PLANT NAME: Diablo Canyon Units-1 & 2							

FOR ACTION/INFORMATION DHL 10-29-75

BUTLER (L) W/ Copies	SCHWENCER (L) W/ Copies	ZIEMANN (L) W/ Copies	REGAN (E) W/ Copies	REID (L) W/ COPIES
CLARK (L) W/ Copies	STOLZ (L) W/ Copies	DICKER (E) W/ Copies	LEAR (L) W/ Copies	
PARR (L) W/ Copies	VASSALLO (L) W/ Copies	KNIGHTON (E) W/ Copies	SPIES W/ Copies	
KNIEL (L) W/ Copies	PURPLE (L) W/ Copies	YOUNGBLOOD (E) W/ Copies	<u>LEM ALLISON</u> W/ Copies	

INTERNAL DISTRIBUTION

<u>REG FILE (2)</u> NRC PDR (2) OGC, ROOM P-506A GOSSICK/STAFF CASE GIAMBUSSO BOYD MOORE (L) DEYOUNG (L) SKOVHOLT (L) GOLLER (L) (Ltr) P. COLLINS DENISE REG OPR <u>FILE & REGION (2)</u> MIPC	<u>TECH REVIEW</u> SCHROEDER MACCARY KNIGHT PAWLICKI SHAO STELLO HOUSTON NOVAK ROSS IPPOLITO TEDESCO J. COLLINS LAINAS BENAROYA VOLLMER	DENTON GRIMES GAMMILL KASTNER BALLARD SPANGLER <u>ENVIRO</u> MULLER DICKER KNIGHTON YOUNGBLOOD REGAN <u>PROJECT LDR</u> <u>W. ROSS</u> HARLESS	<u>LIC ASST</u> R. DIGGS (L) H. GEARIN (L) E. GOULBOURNE (L) <u>P. KREUTZER (E)</u> J. LEE (L) M. RUSHBROOK (L) S. REED (E) M. SERVICE (L) S. SHEPPARD (L) M. SLATER (E) H. SMITH (L) S. TEETS (L) G. WILLIAMS (E) <u>W. WILSON (L)</u> R. INGRAM (L) M. DUNCAN (E)	<u>A/T IND.</u> BRAITMAN SALTZMAN MELTZ <u>PLANS</u> <u>MCDONALD</u> CHAPMAN DUBE (Ltr) E. COUPE PETERSON HARTFIELD (2) KLECKER EISENHUT WIGGINTON
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EXTERNAL DISTRIBUTION

<u>1</u> - LOCAL PDR <u>San Luis Obispo, Calif.</u>	<u>1</u> - NATIONAL LABS _____	<u>1</u> - PDR-Walnut Creek
<u>1</u> - TIC (ABERNATHY) (1)(2)(10)	<u>1</u> - W. PENNINGTON, Rm E-201 GT	<u>1</u> - PDR-SAN LUIS OBISPO
<u>1</u> - NSIC (BUCHANAN)	<u>1</u> - CONSULTANTS	<u>1</u> - BROOKHAVEN NAT LAB
<u>1</u> - ASLB	<u>1</u> - NEWMARK/BLUME/AGBABIAN	<u>1</u> - G. ULRIKSON ORNL
<u>1</u> - Newton Anderson		

4/6 ACRS HOLDING SENT **To. L.A.**

m4 *[Signature]*

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Regulatory Docket File

PACIFIC GAS AND ELECTRIC COMPANY

PG&E + 77 BEALE STREET • SAN FRANCISCO, CALIFORNIA 94106 • (415) 781-4211

JOHN C. MORRISSEY
VICE PRESIDENT AND GENERAL COUNSEL
MALCOLM H. FURBUSH
ASSOCIATE GENERAL COUNSEL
CHARLES T. VAN DEUSEN
MALCOLM A. MACKILLOP
PHILIP A. CRANE, JR.
HENRY J. L'PLANTE
RICHARD A. CLARKE
JOHN D. GIBSON
ASSISTANT GENERAL COUNSEL

NOEL KELLY
EDWARD J. MCGANNEY
ARTHUR L. HILLMAN, JR.
ROBERT GHLBACH
DAN GRAYSON LUBBOCK
SENIOR COUNSEL

JOSEPH I. KELLY
JACK F. FALLIN, JR.
DONALD L. FREITAS
JOSEPH B. ENGLERT, JR.
ROBERT L. BORDON
KATHY GANAM
IVDR E. SAMSON
J. PETER BAUMBARTNER
ROBERT M. SCHIFF
F. RONALD LAUPMEIER
KERMIT R. KUBITZ
JAMES A. KAYLOR
THEODORE L. LINDBERG, JR.

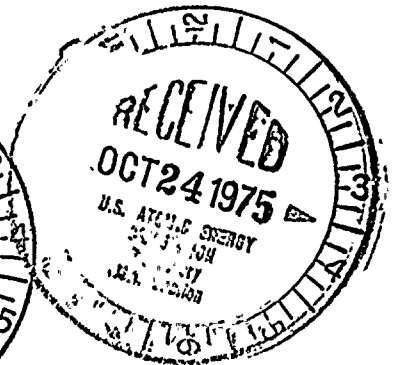
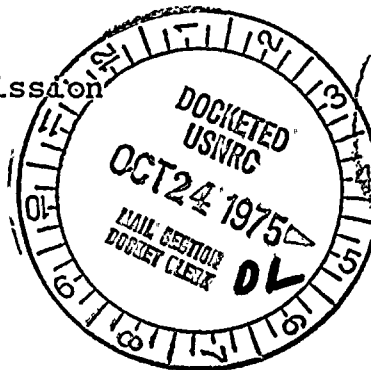
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ANNETTE GREEN
BRUCE R. WORTHINGTON
DAVID J. WILLIAMSON
SHIRLEY WOOD

ATTORNEYS

October 21, 1975

Mr. Olan D. Parr, Chief
Light Water Reactors
Project Branch 1-3
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Re: Dockets 50-275-01
50-323-0L
Diablo Canyon Site
Units 1 and 2



Dear Mr. Parr:

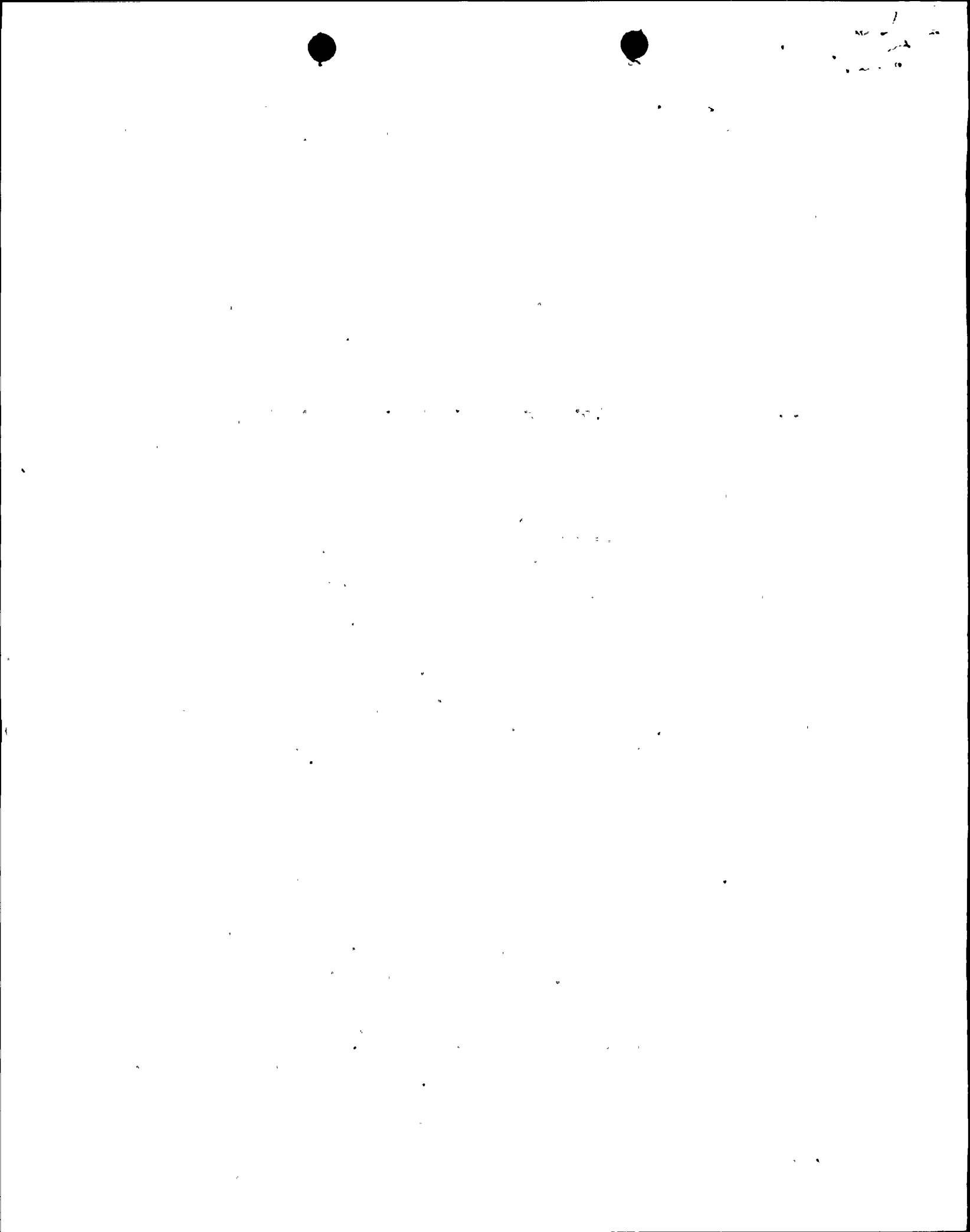
Your letter dated July 11, 1975 requested additional information concerning protection against tornado-generated missiles at Diablo Canyon. We have investigated each of the areas which your letter identified requiring further review to determine the need, feasibility, and estimated cost of design modifications which would provide additional protection from tornado-generated missiles. The results of this investigation are as follows:

1. Emergency Power System - Turbine Building Vital 4.16 KV Switchgear Area

Additional information concerning protection against tornado-generated missiles for emergency power system components in this area is provided in FSAR Pages 3.3-9, 3.3-17, and 3.3-18, as submitted in Amendment 36 to our application. While tornado-generated missiles could penetrate the turbine building walls in this area, possibly damaging components of the emergency power system, it is unlikely that such damage would affect the safe shutdown capability of the plant.

Plant modifications to provide additional protection are feasible, but the work involved would be extensive and costly. In estimating the cost of these modifications we have assumed that the design should preclude any possibility of damage to

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Mr. Olan D. Parr

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October 21, 1975

emergency power system components from missiles generated by a tornado with characteristics as given by Regulatory Guide 1.76. For Diablo Canyon Units 1 and 2 we estimate the cost of these modifications to be approximately \$470,000.

The results of the tornado capability review for Diablo Canyon, as presented in FSAR Section 3.3.2, show that the occurrence of a postulated tornado will not cause a loss of coolant accident, impair containment integrity, result in radioactive releases greater than those resulting from the Condition II faults analyzed in FSAR Chapter 15, and would not be expected to affect the safe shutdown capability of the plant.

In view of the low probability of tornado occurrence at Diablo Canyon and the limited unprotected exposure of the vital 4.16 KV switchgear area to tornado-generated missiles, we believe that the risk of tornado missile damage which would affect the safe shutdown capability of the plant is negligible. Accordingly, we do not believe that the cost of plant modifications can be justified as providing substantial, additional protection for the public health and safety.

2. Tornado Missile Barriers for Diesel Generator Louvers

The design of the tornado missile barriers for diesel generator louvers has been revised to provide additional protection from small missiles. The revised design is shown in FSAR Figure 3.5-2 (Sheets 1 and 2), as submitted in Amendment 33 to our application. The cost of the tornado missile barriers for diesel generator louvers, including the design modification to provide additional protection from small missiles, is approximately \$230,000.

3. Component Cooling Water System

We have investigated further the consequences of tornado-generated missile damage to component cooling water surge tanks and piping. Additional information is given in FSAR 3.3-11, 3.3-12 and FSAR Table 3.3-3 (Sheets 1-3), as submitted in Amendment 33 to our application. This investigation shows that the component cooling water system would continue to operate satisfactorily, even in the event of damage from tornado-generated missiles.

Very truly yours

Philip A. Crane, Jr.
Philip A. Crane, Jr.

PAC:at.

cc: ASLB

All parties

