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 50-323 Diablo Canyon Nuclear Power Plant, Unit 2, Pacific Gas 05000323
 AUTH. NAME AUTHOR AFFILIATION
 CRANE, P.A. Pacific Gas & Electric Co.
 RECIP. NAME RECIPIENT AFFILIATION
 MIRAGLIA, F.J. Licensing Branch 3

SUBJECT: Forwards data & seven oversize drawings for structural analyses of Unit 1, in response to BNL request. Modeling parameters for Unit 2 containment interior structure also encl. Aperture cards are available in PDR.

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PACIFIC GAS AND ELECTRIC COMPANY

PG&E +

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ATTORNEYS

March 15, 1982

Mr. Frank J. Miraglia, Jr., Chief
Licensing Branch No. 3
Division of Licensing
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Re: Docket No. 50-275
Docket No. 50-323
Diablo Canyon Units 1 and 2

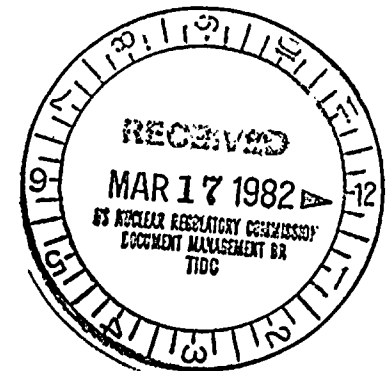
Dear Mr. Miraglia:

PGandE is enclosing for your information the data and drawings for structural analyses of Diablo Canyon Unit 1 requested by Brookhaven National Laboratory (BNL). The structural steel fabricators' drawings (Bostrom-Bergen Metal Products and Murphy Pacific Corp.) provide sufficient information to depict field conditions for modeling purposes. The specific drawings are identified below:

Drawing Numbers

DC663243 - 465-2	DC663368 - 1-1
DC663243 - 466-2	DC663368 - 10-1
DC663243 - 467-2	DC663368 - 35-1
	DC663368 - 37-2

In addition, certain modeling parameters for the Unit 2 containment interior structure which were previously furnished to BNL have been updated and are also enclosed (5 pages plus a transmittal sheet from URS/Blume).



Boo!
111
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PM

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Mr. Frank J. Miraglia, Jr.

-2-

March 15, 1982

Kindly acknowledge receipt of the above material on the enclosed copy of this letter and return it to me in the enclosed addressed envelope.

Very truly yours,

Philip A. Green

Enclosures

cc (w/enc.): M. Reich (BNL)

cc (w/o enc.): Service List

URS/John A. Blume & Associates Engineers

130 Jessie Street (at New Montgomery) San Francisco, California 94105

Date : February 25, 1982

To: Pacific Gas & Electric Co.

77 Beale Street, Room 2609

San Francisco, CA 94106

Attention: Mr. Vince Ghio

Subject: Diablo Canyon Containment

Interior

GENTLEMEN:

We are enclosing

We are forwarding
under separate cover.....

Prints.....

Tracings.....

Preliminary Drawings.....

Specifications

Shop Drawings

Other

AS FOLLOWS:

One (1) copy of modeling parameters for the 1977 model of the Containment Interior Structure. This information was previously transmitted on October 16, 1981, and has been updated to reflect recent changes in the section properties and masses of the multi-mass model of the concrete interior structure.

Received - VJ Ghio 2/27/82

Sent by: Printer

Engineer's Messenger.....

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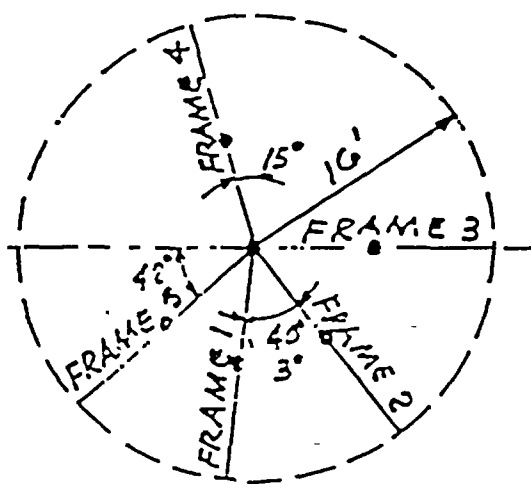
c.c. to

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at once.

By David A. Lang
Sheet 1 of 1

CONTAINMENT

CONTAINMENT



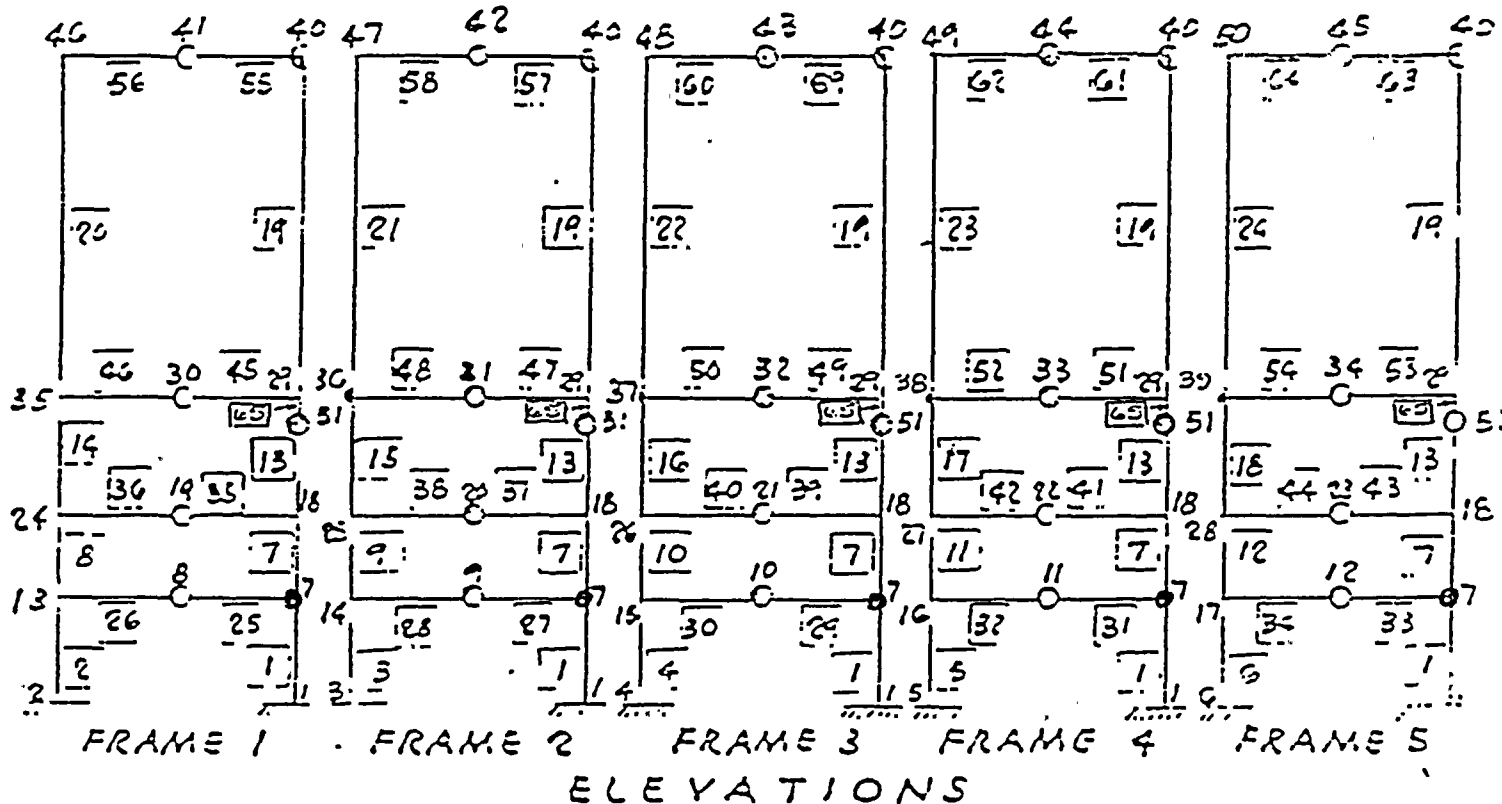
LEGEND :

- [1] - ELEMENT NUMBER
- 2 - NODE NUMBER
- - MASS POINT

NOTE :

NODES 1, 7, 18, 29, 40 & 51
ARE ALONG E OF STRUCTURE
AND ARE COMMON TO ALL
FIVE FRAMES

PLAN



MATHEMATICAL MODEL FOR VERTICAL ANALYSIS OF INTERIOR STRUCTURE

PLAN SHOWS UNIT 2 CONFIGURATION
DATA IS APPLICABLE TO BOTH UNITS

[Signature]
3-10-82

DIABLO CANYON
CONTAINMENT STRUCTURE

FIGURE A-1

NODAL POINT DATA

NODAL COORDINATE			NODAL COORDINATE		
NODE NO.	X	Y	NODE NO.	X	Y
1	0.00	0.00	27	16.00	16.00
2	16.00	0.00	28	16.00	16.00
3	16.00	0.00	29	0.00	26.00
4	16.00	0.00	30	8.00	26.00
5	16.00	0.00	31	8.00	26.00
6	16.00	0.00	32	8.00	26.00
7	0.00	10.00	33	8.00	26.00
8	8.00	10.00	34	8.00	26.00
9	8.00	10.00	35	16.00	26.00
10	8.00	10.00	36	16.00	26.00
11	8.00	10.00	37	16.00	26.00
12	8.00	10.00	38	16.00	26.00
13	16.00	10.00	39	16.00	26.00
14	16.00	10.00	40	0.00	47.50
15	16.00	10.00	41	8.00	47.50
16	16.00	10.00	42	8.00	47.50
17	16.00	10.00	43	8.00	47.50
18	0.00	16.00	44	8.00	47.50
19	8.00	16.00	45	8.00	47.50
20	8.00	16.00	46	16.00	47.50
21	8.00	16.00	47	16.00	47.50
22	8.00	16.00	48	16.00	47.50
23	8.00	16.00	49	16.00	47.50
24	16.00	16.00	50	16.00	47.50
25	16.00	16.00	51	0.00	21.50
26	16.00	16.00			

Kamath
3-10-82

BEAM ELEMENT DATA

BEAM NO.	MATERIAL NO.	SECTION NO.
1	2	1
2	1	3
3	1	4
4	1	5
5	1	6
6	1	3
7	2	1
8	1	3
9	1	4
10	1	5
11	1	6
12	1	3
13	2	1
14	1	3
15	1	4
16	1	5
17	1	6
18	1	3
19	2	2
20	1	7
21	1	8
22	1	9
23	1	10
24	1	7
25	1	12
26	1	12
27	1	13
28	1	13
29	1	14
30	1	14
31	1	15
32	1	15
33	1	11

BEAM NO.	MATERIAL NO.	SECTION NO.
34	1	11
35	1	17
36	1	17
37	1	18
38	1	18
39	1	19
40	1	19
41	1	20
42	1	20
43	1	16
44	1	16
45	1	26
46	1	26
47	1	27
48	1	27
49	1	28
50	1	28
51	1	29
52	1	29
53	1	26
54	1	26
55	2	22
56	2	22
57	2	23
58	2	23
59	2	24
60	2	24
61	2	25
62	2	25
63	2	21
64	2	21
65	2	2

Revised
3-10-82

MATERIAL PROPERTIES

MATERIAL NUMBER

YOUNG'S MODULUS

POISSON'S RATIO

1

4,180,000 K/FT^2

0.30

2

654,000 K/FT^2

0.25

SECTION PROPERTIES

SECTION NO.	AXIAL AREA (FT^2)	MOMENT OF INERTIA (FT^4)
-------------	------------------------------	-------------------------------------

1	1815 (1114)	1,000,000
2	1905	1,000,000
3	0.60	0.12
4	0.40	0.08
5	0.80	0.17
6	1.20	0.25
7	0.39	0.08
8	0.26	0.05
9	0.52	0.10
10	0.78	0.15
11	0.30	0.08
12	0.18	0.04
13	0.21	0.05
14	0.28	0.06

SECTION NO.	AXIAL AREA (FT^2)	MOMENT OF INERTIA (FT^4)
-------------	------------------------------	-------------------------------------

15	0.32	0.06
16	0.15	0.04
17	0.30	0.08
18	0.12	0.03
19	0.30	0.07
20	0.46	0.10
21	116.70	21.78
22	70.20	13.10
23	74.27	13.86
24	68.67	12.82
25	107.00	19.97
26	0.60	0.30
27	0.40	0.20
28	0.80	0.40
29	1.20	0.60

Section properties 3-29 revised for current steel drawings
Revised properties not shown

NOTE: THIS INFORMATION IS BEING FURNISHED FOR THE PURPOSE OF MODELING THE INTERIOR CONCRETE STRUCTURE ONLY (E.I. MASS POINTS 7, 40 AND 51, ELEMENTS 1, 7, 13 AND 19).
REFER TO STRUCTURAL DWGS. AND DEAD LOAD DWGS. FOR ALL OTHER INFORMATION.

Drummond
3-10-82

NODAL MASSES

NODE NO.	NODAL MASS (K SEC ² /FT)
----------	-------------------------------------

8	0.29
9	0.29
10	0.28
11	0.36
12	0.30

19	0.63
20	0.35
21	0.31
22	0.69
23	0.70

30	1.25
31	1.07
32	1.34
33	1.55
34	1.50

40	500.71	377.6
----	--------	-------

41	8.72
----	------

42	7.95
----	------

43	9.18
----	------

44	10.49
----	-------

45	10.55
----	-------

51	375.88	257.3
----	--------	-------

7	62.1
---	------

CORRECTED
MASSES

NOTE:

THIS INFORMATION IS BEING FURNISHED FOR THE PURPOSE OF MODELING THE INTERIOR CONCRETE STRUCTURE ONLY (E.I. MASS POINTS 1, 7, 13 AND 19). REFER TO STRUCTURAL DWGS. AND DEAD LOAD DWGS. FOR ALL OTHER INFORMATION.

DEAD LOAD DWGS.

3-10-82

Masses for steel (annulus) nodes revised for 10/30/81 pgt. loads
Revised steel masses not shown.

