UNITED STATES OF AMERIC
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
	)	
PACIFIC GAS AND ELECTRIC COMPANY	)	
	)	Docket No. 50-275
Unit 1	)	
	)	
Diablo Canyon Site	)	
	)	

MEMORANDUM IN SUPPORT OF
MOTION FOR INTERIM OPERATING LICENSE

FACTS

1. The Need for Unit 1

The most recently announced NRC schedule indicates that a decision on issuance of a full term operating license for Unit 1 would not occur until the summer of 1978. However, the power supply available to serve Northern and Central California is presently seriously inadequate and could deteriorate further in 1978 without Diablo Canyon Unit 1. For the balance of 1977, assuming no major breakdowns of generating units, PGandE expects to be able to meet the demands of its customers by its own facilities and through purchases of power from neighboring utilities.

If the drought conditions of the past two years continue, even with Diablo Canyon Unit 1 in operation, capacity margins next year would be less than 6% of the peak load during the critical months of July and August and PGandE would be energy deficient nearly every month. Without Unit 1, those margins would vanish. The 1978 power supply could be further reduced because the current estimates do not reflect the uncertain status of the Humboldt Bay Nuclear Unit (63 MW) nor the likely delay of several months in the expected

service dates of two new units at The Geysers Power Plant which are currently scheduled for operation on July 1, 1978 (106 MW) and on September 1, 1978 (55 MW). Purchasing more power could improve next year's supply situation but the outlook for buying significant amounts of additional capacity and energy from sources outside the system is not favorable. Without Diablo Canyon Unit 1 service curtailments are almost a certainty in 1978 if drought conditions continue. Detailed figures giving 1978 loads and resources with and without Diablo Canyon Unit 1 are set forth in Exhibit A attached.

If average precipitation occurs in Northern and Central California during the winter of 1977-1978 increased hydro capacity would improve considerably the situation in 1978. Based on preliminary studies which assume a return to average precipitation conditions, the predicted capacity margin in August, the most critical month, is about 15% with Diablo Canyon Unit 1 but only about 9% without the Unit, which is well below the level required for reliable service. Again these figures do not take into account the uncertain status of Humboldt Bay and the likely delay in the two Geysers units.

2. Reduction of Air Contaminants

Although the most immediate reason for this request for an interim operating license is PGandE's need for power from Unit 1, operation of the Unit also would reduce the amount of oil required to generate electricity in the State of California. This in turn would reduce emissions of air contaminants consistent with the policy enunciated by the California Air Resources Board. Therefore, even in the absence of the drought-induced electricity shortage there are strong

reasons for authorizing the operation of this completed Unit on an interim basis so long as there is reasonable assurance that such operation can be conducted without endangering the health and safety of the public.

3. Public Health and Safety

The construction permits for the Diablo Canyon units were issued on the basis that this plant would be designed and constructed to withstand an earthquake producing a ground acceleration of 0.4g. This earthquake, termed the Double Design Earthquake (DDE), is equivalent to the Safe Shutdown Earthquake (SSE) as presently defined in 10 CFR 100, Appendix A. The then AEC Staff, its consultants, the U. S. Geological Survey (USGS), and the Atomic Safety and Licensing Boards considered the seismic design basis for the plant would be acceptable.

During review of PGandE's application for an operating license the USGS recommended that the facility be evaluated for a 7.5M earthquake on the Hosgri Fault considering ground motion for near site events, as set forth in Table 2 of USGS Circular 672. Based upon this recommendation the NRC Staff consultant on structural design recommended, and the Staff concurred, that an effective horizontal ground acceleration of 0.75g be used for the development of design response spectra for the plant. Although PGandE and its consultants believe, on the basis of independent investigations, that the magnitude of the postulated Hosgri event and resulting ground acceleration at the site are excessive, PGandE has undertaken to make the required evaluation. The first phase of the evaluation has been filed as Amendment No. 50 to the operating license

application and demonstrates that, with some modifications (see § 5 below) structures, systems, and components required to shut down and maintain the plant in a safe condition will be available following the postulated Hosgri earthquake. The second phase of the evaluation, which will be filed on or about October 1, 1977, will demonstrate that with some additional modifications the remainder of the Design Class I structures, systems and components are capable of withstanding the Hosgri event.

4. Probabilistic Study

In support of this motion for an interim operating license PGandE has prepared a report entitled

"Analysis of the Risk to the Public From Possible Damage To the Diablo Canyon Nuclear Power Station From Seismic Events"

This report is being filed separately as Amendment No. 52 to the operating license application for the Diablo Canyon Units, and it is based on the assumption that an earthquake of 7.5 Richter magnitude could occur on the Hosgri Fault.

The results of the previous studies filed with the Nuclear Regulatory Commission have shown that, even assuming the Hosgri Fault were capable of a 7.5M event, an earthquake causing an effective ground acceleration of 0.75g or greater at the plant site would be expected to occur no more often than once every 50,000 years. This present study includes the possibility of even higher effective ground accelerations, although such accelerations may not be physically realizable at the site. Nevertheless, even including the impact on the plant of such unreasonably high accelerations far in excess of 0.75g, the maximum the NRC asked PGandE

to consider, the risk to the health and safety of the public from radiation emissions caused by possible earthquake damage to the plant was found to be extremely remote. As an illustration, the probability of an individual in the closest community to the site (Avila Beach) being exposed to as much as 25 Rem of radiation to the whole body is only about one in seven million per year. (Exposures below 25 Rem - a federal emergency radiation guideline - rarely result in any noticeable clinical effect on humans.) For effective ground accelerations up to 0.75g, the risk of 25 Rem exposure drops to only one in 400 million per year. Calculations for other communities show even lower risk of exposure to radiation.

The principal reasons that the risk of radiation exposure is so low are as follows:

1. The extreme rarity of earthquakes of sufficient size to cause major damage to the plant.
2. The effectiveness of the plant safety systems in preventing major damage to key plant components.
3. The effectiveness of plant backup safety systems in reducing radiation releases, even if major damage occurs.
4. The rarity of combinations of atmospheric conditions and wind directions which would tend to result in significant exposures to the population.

In addition to these factors, the very low population density in the vicinity of the site, one of the most remote sites for such plants in the world, results in a low risk of population exposure.

The study also concluded that the completion of proposed major modifications to the turbine building for the purpose of raising the seismic qualification level would not result in further significant reduction of the public health risk. It was also concluded that inevitable health effects, however small, due to increased air pollution, would be associated with providing alternate sources of electric power, whether generated by PGandE or purchased, if the Diablo Canyon Units were delayed for modifications.

As a result of this study and others filed previously, PGandE concludes that the Diablo Canyon Power Plant, with or without modifications, can be operated safely and without undue risk to the health and safety of the public.

5. Modifications and Commitment To Make Changes

PGandE is proceeding with modifications to the plant required for the Hosgri seismic event. However, the risk analysis referred to under § 4 above demonstrates that the risk to the health and safety of the public due to operation of Unit 1 during the period of an interim license would be acceptably low, even without these modifications. Although PGandE is proceeding to make the required modifications at the earliest possible time, some or all of the modifications could be made after initial operation without significantly increasing the risk to the public.

Certain of the modifications required for the Hosgri event would be difficult to make after operation, primarily because the modifications require working for extended periods in areas where significant exposure of workers to radioactivity might be required.

Modifications in this category would be limited to those inside the containment and to some systems and components in the auxiliary building which are associated with radwaste systems, the chemical and volume control system, and the residual heat removal system. PGandE will complete all such modifications prior to commencing operation of the Diablo Canyon Units.

6. Technical and Financial Qualifications

The Atomic Energy Commission has previously found PGandE technically and financially qualified to operate nuclear power plants (4 AEC 89,447). A copy of its Annual Report for the year 1976 containing certified financial statements is currently on file with the Commission. PGandE and the Commission have entered into indemnity agreements pursuant to 10 CFR 140 to cover receipt of fuel at the site, and the agreement for Unit 1 can be amended to reflect the increased insurance coverage required when the Unit goes into operation.

ARGUMENT

10 CFR 50.57(c) clearly and explicitly authorizes the Nuclear Regulatory Commission, in connection with a pending proceeding, to issue an interim operating license

> ". . . authorizing low-power testing . . . and further operations short of full power operation."

The fact that PGandE has committed to make certain modifications to the Diablo Canyon facility is no obstacle to issuance of the requested license since 10 CFR 50.57(b) expressly provides for issuance of operating licenses with

> ". . . appropriate provisions with respect to any uncompleted items of construction and such limitations or conditions as are required to assure that operation during the period of the completion of such items will not endanger public health and safety."

Finally, 10 CFR 50.57(c) provides that the Licensing Board or the Director of Nuclear Reactor Regulation must make the findings on all matters specified in 50.57(a), which include, among other things, reasonable assurance

> ". . . that the activities authorized by the operating license can be conducted without endangering the health and safety of the public . . ."

At the hearing on this motion PGandE will show that it complies with all parts of 10 CFR 50.57 and that issuance of the requested interim license is necessary for the protection of the public health and safety. By its motion PGandE is not requesting a novel form of relief short cutting the protective provisions of the Atomic Energy Act of 1954, as amended, and the regulations issued thereunder, but rather relief which is entirely consistent with the Act and NRC regulations, and which Licensing Boards have granted in the past (see, for example, 3 NRC 711 (based in part upon a probability analysis and commitment by the applicant to install a backup to the primary intake system), 2 NRC 27, 1 NRC 431).

It is clear that under the applicable statutes Congress has left it essentially to the Commission to make the basic judgments as to what is necessary to fulfill the requirement of "adequate protection to the health and safety of the public" (42 USC 2133, 2232; 6 AEC 1003, 1009). Moreover, the standard to be applied by the Commission in making this determination is not one of "absolute certainty" and "no risk" but

instead one of "reasonable assurance" or "low probability." Thus 42 USC 2133 authorizes the Commission to issue licenses to persons

> ". . . who are equipped to observe and who agree to observe such safety standards to protect health and to minimize danger to life or property . . . and . . . who agree to make available to the Commission such technical information and data . . . as the Commission may determine necessary to promote the common defense and security and to protect the health and safety of the public." (emphasis added)

42 USC 2232 requires applicants to furnish

> ". . . such other information as the Commission may . . . deem necessary . . . to enable it to find that the utilization of special nuclear material . . . will provide adequate protection to the health and safety of the public." (emphasis added)

Similarly under the regulations only reasonable assurance that the health and safety of the public will not be endangered is required. Thus, in addition to 10 CFR 50.57(a) already cited, 10 CFR 2.104(c) provides that the issues to be considered in deciding applications for operating licenses include

> "(3) Whether there is reasonable assurance (i) that the activities to be authorized by the operating license can be conducted without endangering the health and safety of the public . . .
>
> (6) Whether issuance of the license will be inimical to the common defense and security or to the health and safety of the public . . ."

Similar language is found in 10 CFR 50.35(c) and 10 CFR 50, App. A., Introduction. 10 CFR 50.40(a) provides that in determining whether to issue a license

". . . the Commission will be guided by the following considerations:

(a) The processes to be performed, . . . the use of the facility . . . provide reasonable assurance . . . that the health and safety of the public will not be endangered . . .

(c) The issuance of a license to the applicant will not, in the opinion of the Commission, be inimical to the common defense and security or to the health and safety of the public." (emphasis added)

Finally, 10 CFR 100.10 in discussing the factors to be considered when evaluating sites provides

"It is expected that reactors will reflect through their design, construction and operation an extremely low probability for accidents that could result in release of significant quantities of radioactive fission products. In addition, the site location and the engineered features included as safeguards against the hazardous consequences of an accident, should one occur, should insure a low risk of public exposure." (emphasis added)

This standard of "reasonable assurance" has been recognized by the predecessor to the Nuclear Regulatory Commission. In a memorandum and order dated August 29, 1973, Docket RM-50-8, (6 AEC 1069), which was issued in response to a petition by Ralph Nader and others seeking the shutdown of twenty licensed reactors, the Commission stated as follows:

"Petitioners' case rests upon the assertion that plants should be shut down because compliance with the IAC does not 'assure' ECCS effectiveness. Neither the statute nor the Commission regulations in issue, however, require such an unattainable guarantee of risk - free operation . . . We do not live in a riskless society, nor could modern technological societies exist on that basis. We are, of course, aware of the potential risks in nuclear matters if safety is not given the very close attention it deserves . . . It is precisely because of this perceived risk that we have always imposed stringent and overlapping protective measures in implementing the concept of defense in depth. However we cannot - and do not - claim 'assurance' as an absolute.

"Resting upon an assumed (but impossible) standard of 100 percent assurance, petitioners build their case upon what they claim is the 'undisputed inadequacy of the Interim Acceptance Criteria.' But the IAC can be viewed as 'inadequate' only if petitioners' notion of absolute risklessness is accepted. We reject petitioners' attempt to bootstrap their theory into a conclusion of inadequacy.

"Rather, the regulatory process turns upon the concept of 'reasonable assurance' to public health and safety . . ."

For the above reasons PGandE submits there is ample authority for the Commission to issue the license requested.

Respectfully submitted,

JOHN C. MORRISSEY
MALCOLM H. FURBUSH
PHILIP A. CRANE, JR.
Pacific Gas and Electric Company
77 Beale Street
San Francisco, California 94106
(415) 781-4211

ARTHUR C. GEHR
Snell & Wilmer
3100 Valley Center
Phoenix, Arizona 85073
(602) 257-7288

BRUCE NORTON
Suite 202, 3216 North Third Street
Phoenix, Arizona 85012
(602) 264-0033

Attorneys for
Pacific Gas and Electric Company

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

Dated: August 25, 1977

1978 LOADS AND RESOURCES
ADVERSE YEAR (1977 BUNDLED) OUTLOOK
WITH DIABLO CANYON

	ENERGY (MILLION KILOWATT HOURS)												
	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTAL
LOADS AND TRANSFERS	6454	6028	6454	6278	6661	6963	7597	7607	6626	6366	6127	6520	79681
RESOURCES AFTER OVERHAUL													
AREA HYDRO	590	573	629	747	760	866	1078	1001	817	686	506	480	8733
NORTHWEST - FIRM	236	208	228	252	252	252	252	252	252	252	232	152	2820
NORTHWEST - PEAKING	0	0	0	0	0	0	0	0	0	0	0	0	0
NORTHWEST - NON-FIRM	0	0	0	0	0	0	0	0	0	0	0	0	0
GEOTHERMAL (90% CF)	336	304	336	325	336	325	407	407	429	444	429	444	4522
GAS TURBINES (30% CF)	60	53	58	55	91	84	87	90	84	90	97	103	952
REFINERY PLANTS (75% CF)	100	90	100	97	100	97	100	100	97	100	97	100	1178
HUMBOLDT BAY #3	42	38	42	41	42	41	42	42	41	42	41	42	496
RANCHO SECO	554	500	552	532	542	519	537	537	520	70	0	501	5364
STATE EXTERNAL RESOURCES	127	133	139	101	43	59	77	95	92	63	82	67	1078
DIABLO CANYON	260	400	517	500	517	500	517	517	500	777	900	1034	6939
CONVENTIONAL THERMAL (85% CF)	4033	3529	3844	3628	4033	4332	4603	4603	4209	3970	3965	4350	49099
TOTAL	6338	5828	6445	6278	6716	7075	7700	7644	7041	6494	6349	7273	81181
MARGIN WITH CONVENTIONAL THERMAL AT 85% MONTHLY CAPACITY FACTOR													
0 MW FORCED OUTAGE	-116	-200	-9	0	55	112	103	37	415	128	222	753	1500
400 MW FORCED OUTAGE (1)	-369	-429	-262	-245	-198	-133	-150	-216	171	-125	-23	500	-1479
739 MW FORCED OUTAGE (2)	-583	-622	-477	-452	-412	-341	-365	-431	-37	-339	-231	285	-4005

(1) EXPECTED AVERAGE LEVEL OF FORCED OUTAGE ON CONVENTIONAL THERMAL UNITS FOR THE PURPOSE OF ESTIMATING ENERGY MARGINS.
(2) LARGEST CONVENTIONAL THERMAL UNIT ON PG&E SYSTEM IS 739 MW.

AUGUST 9, 1977

EXHIBIT A

1978 LOADS AND RESOURCES
ADVERSE YEAR (1977 RUNOFF) OUTLOOK
WITH DIABLO CANYON

	CAPACITY (MEGAWATTS)											
	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
LOADS AND TRANSFERS (1)	12410	12097	11825	11672	13028	14550	15428	15424	13881	11928	12261	12995
RESOURCES AFTER OVERHAUL												
USABLE AREA HYDRO (2)	3507	3608	3035	3362	4015	4660	4343	4249	4183	3689	3817	3854
N.W. FIRM (USBR)	400	400	400	400	400	400	400	400	400	400	400	400
N.W. PEAKING (BPA & PGE)	0	0	0	0	400	1000	1000	1000	1000	600	0	0
N.W. NON-FIRM	0	0	0	0	0	0	0	0	0	0	0	0
GEOTHERMAL	502	502	502	502	502	502	608	608	663	663	663	663
GAS TURBINES	269	265	261	257	407	387	394	403	390	403	447	461
REFINERY PLANTS	179	179	179	179	179	179	179	179	179	179	179	179
HUMBOLDT BAY #3	63	63	63	63	63	63	63	63	63	63	63	63
RANCHO SECO	903	902	899	895	883	873	875	875	875	0	0	903
STATE EXTERNAL RESOURCES	163	204	209	172	78	101	106	141	139	50	88	63
DIABLO CANYON	0	0	1060	1060	1060	1060	1060	1060	1060	1060	1060	2120
CONVENTIONAL THERMAL AVAILABLE	6378	6178	6078	5928	6378	7078	7278	7278	6878	6278	6478	6878
TOTAL	12364	12301	12686	12818	14365	16303	16306	16256	15830	13385	13195	15584
MARGIN, MW	-46	204	861	1146	1337	1753	878	832	1949	1457	934	2589
%	-0.4	1.7	7.3	9.8	10.3	12.0	5.7	5.4	14.0	12.2	7.6	19.9
CONVENTIONAL THERMAL												
TOTAL	7309	7309	7309	7309	7309	7309	7309	7309	7309	7309	7309	7309
SCHEDULED OVERHAUL	900	1100	1200	1350	900	200	0	0	400	1000	800	400
LONG TERM LIMITATIONS	31	31	31	31	31	31	31	31	31	31	31	31
CONVENTIONAL THERMAL AVAILABLE	6378	6178	6078	5928	6378	7078	7278	7278	6878	6278	6478	6878

(1) 100 MW OF INTERRUPTIBLE LOAD INCLUDED.

(2) HYDRO CAPACITY AND ENERGY IS BASED ON CURRENT ESTIMATES OF RESEVOIR STORAGES AT THE END OF 1977 AND INFLOWS IN 1978 AS THEY HAVE OCCURED OR ARE EXPECTED TO OCCUR IN 1977. THIS RESULTS IN REDUCED HYDRO CAPABILITY VARYING FROM ABOUT 750 TO 1250 MEGAWATTS (1198 IN JULY, 1237 IN AUGUST) AND LARGER-THAN-NORMAL DISCOUNTED CAPACITY DURING JANUARY THROUGH MAY AND SEPTEMBER THROUGH DECEMBER. IN THESE MONTHS (JANUARY THROUGH MAY AND SEPTEMBER THROUGH DECEMBER) USABLE HYDRO CAPACITY CAN BE INCREASED BY PURCHASING ENERGY FROM OUTSIDE AREA SOURCES IF AVAILABLE.

AUGUST 9, 1977

EXHIBIT A

1978 LOADS AND RESOURCES
ADVERSE YEAR (1977 BUNDLED) OUTLOOK
WITHOUT DIABLO CANYON

	ENERGY (MILLION KILOWATT HOURS)												
	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTAL
LOADS AND TRANSFERS	6454	6028	6454	6278	6661	6963	7597	7607	6626	6366	6127	6520	79681
RESOURCES AFTER OVERHAUL													
AREA HYDRO	590	573	629	747	760	866	1078	1001	817	686	506	480	8733
NORTHWEST - FIRM	236	208	228	252	252	252	252	252	252	252	232	152	2820
NORTHWEST - PEAKING	0	0	0	0	0	0	0	0	0	0	0	0	0
NORTHWEST - NON-FIRM	0	0	0	0	0	0	0	0	0	0	0	0	0
GEOTHERMAL (90% CF)	336	304	336	325	336	325	407	407	429	444	429	444	4522
GAS TURBINES (30% CF)	60	53	58	55	91	84	87	90	84	90	97	103	952
REFINERY PLANTS (75% CF)	100	90	100	97	100	97	100	100	97	100	97	100	1178
HUMBOLDT BAY #3	42	38	42	41	42	41	42	42	41	42	41	42	496
RANCHO SECO	554	500	552	532	542	519	537	537	520	70	0	501	5364
STATE EXTERNAL RESOURCES	127	133	139	101	43	59	77	95	92	63	82	67	1078
DIABLO CANYON	0	0	0	0	0	0	0	0	0	0	0	0	0
CONVENTIONAL THERMAL (85% CF)	4033	3529	3844	3628	4033	4332	4603	4603	4209	3970	3965	4350	49099
TOTAL	6078	5428	5928	5778	6199	6575	7183	7127	6541	5717	5449	6239	74242
MARGIN WITH CONVENTIONAL THERMAL AT 85% MONTHLY CAPACITY FACTOR													
0 MW FORCED OUTAGE	-376	-600	-526	-500	-462	-388	-414	-480	-85	-649	-678	-281	-5439
400 MW FORCED OUTAGE (1)	-629	-829	-779	-745	-715	-633	-667	-733	-329	-902	-923	-534	-8418
739 MW FORCED OUTAGE (2)	-643	-1022	-994	-952	-929	-841	-882	-949	-537	-1116	-1131	-749	-10944

(1) EXPECTED AVERAGE LEVEL OF FORCED OUTAGE ON CONVENTIONAL THERMAL UNITS FOR THE PURPOSE OF ESTIMATING ENERGY MARGINS.
(2) LARGEST CONVENTIONAL THERMAL UNIT CA PGEE SYSTEM IS 739 MW.

AUGUST 9, 1977

EXHIBIT A

1976 LOADS AND RESOURCES
ADVERSE YEAR (1977 BUDGET) OUTLOOK
WITHOUT DIABLO CANYON

	CAPACITY (MEGAWATTS)											
	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT	OCT.	NOV.	DEC.
LOADS AND TRANSFERS (1)	12410	12097	11825	11672	13028	14550	15428	15424	13881	11928	12261	12995
RESOURCES AFTER OVERHAUL												
USABLE AREA HYDRO (2)	3507	3608	3035	3362	4015	4660	4343	4249	4183	3689	3817	3854
N.W. FIRM (USBR)	400	400	400	400	400	400	400	400	400	400	400	400
N.W. PEAKING (BPA & PGE)	0	0	0	0	400	1000	1000	1000	1000	600	0	0
N.W. NON-FIRM	0	0	0	0	0	0	0	0	0	0	0	0
GEOTHERMAL	502	502	502	502	502	502	608	608	663	663	663	663
GAS TURBINES	269	265	261	257	407	387	394	403	390	403	447	461
REFINERY PLANTS	179	179	179	179	179	179	179	179	179	179	179	179
HUMBOLDT BAY #3	63	63	63	63	63	63	63	63	63	63	63	63
RANCHO SECO	903	902	899	895	883	873	875	875	875	0	0	903
STATE EXTERNAL RESOURCES	163	204	209	172	78	101	106	141	139	50	88	63
DIABLO CANYON	0	0	0	0	0	0	0	0	0	0	0	0
CONVENTIONAL THERMAL AVAILABLE	6378	6178	6078	5928	6378	7078	7278	7278	6878	6278	6478	6878
TOTAL	12364	12301	11626	11758	13305	15243	15246	15196	14770	12325	12135	13464
MARGIN, MW	-46	204	-199	86	277	693	-182	-228	889	397	-126	469
%	-0.4	1.7	-1.7	0.7	2.1	4.8	-1.2	-1.5	6.4	3.3	-1.0	3.6
CONVENTIONAL THERMAL												
TOTAL	7309	7309	7309	7309	7309	7309	7309	7309	7309	7309	7309	7309
SCHEDULED OVERHAUL	900	1100	1200	1350	900	200	0	0	400	1000	800	400
LONG TERM LIMITATIONS	31	31	31	31	31	31	31	31	31	31	31	31
CONVENTIONAL THERMAL AVAILABLE	6378	6178	6078	5928	6378	7078	7278	7278	6878	6278	6478	6878

(1) 100 MW OF INTERRUPTIBLE LOAD INCLUDED.

(2) HYDRO CAPACITY AND ENERGY IS BASED ON CURRENT ESTIMATES OF RESEVOIR STORAGES AT THE END OF 1977 AND INFLOWS IN 1978 AS THEY HAVE OCCURED OR ARE EXPECTED TO OCCUR IN 1977. THIS RESULTS IN REDUCED HYDRO CAPABILITY VARYING FROM ABOUT 750 TO 1250 MEGAWATTS (1198 IN JULY, 1237 IN AUGUST) AND LARGER-THAN-NORMAL DISCOUNTED CAPACITY DURING JANUARY THROUGH MAY AND SEPTEMBER THROUGH DECEMBER. IN THESE MONTHS (JANUARY THROUGH MAY AND SEPTEMBER THROUGH DECEMBER) USABLE HYDRO CAPACITY CAN BE INCREASED BY PURCHASING ENERGY FROM OUTSIDE AREA SOURCES IF AVAILABLE.

AUGUST 9, 1977

EXHIBIT A

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of	)	
	)	
PACIFIC GAS AND ELECTRIC COMPANY	)	Docket Nos. 50-275-OL
	)	50-323-OL
Units 1 and 2	)	
	)	
Diablo Canyon Site	)	
	)	

CERTIFICATE OF SERVICE

The foregoing document(s) of Pacific Gas and Electric Company has (~~have~~) been served today on the following by deposit in the United States mail, properly stamped and addressed:

Elizabeth S. Bowers, Esq.
Chairman
Atomic Safety and Licensing Board
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Mr. Glenn O. Bright
Atomic Safety and Licensing Board
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dr. William E. Martin
Atomic Safety and Licensing Board
Senior Ecologist
Battelle Memorial Institute
Columbus, Ohio 43201

Mrs. Elizabeth Apfelberg
1415 Cazadero
San Luis Obispo, California 93401

Janice E. Kerr, Esq.
Public Utilities Commission
of the State of California
5246 State Building
350 McAllister Street
San Francisco, California 94102

Mrs. Raye Fleming
1746 Chorro Street
San Luis Obispo, California 93401

Mr. Frederick Eissler
Scenic Shoreline Preservation
Conference, Inc.
4623 More Mesa Drive
Santa Barbara, California 93105

Mrs. Sandra A. Silver
425 Luneta Drive
San Luis Obispo, California 93401

Mr. Gordon Silver
425 Luneta Drive
San Luis Obispo, California 93401

Brent Rushforth, Esq.
Center for Law in the Public Interest
10203 Santa Monica Drive
Los Angeles, California 90067

Neil Goldberg, Esq.
Wilmer, Cutler & Pickering
1666 K Street, N.W.
Washington, D. C. 20006

David F. Fleischaker, Esq.
1025 15th Street, N.W.
5th Floor
Washington, D. C. 20005

Arthur C. Gehr, Esq.
Snell & Wilmer
3100 Valley Center
Phoenix, Arizona 85073

Bruce Norton, Esq.
3216 North Third Street
Suite 202
Phoenix, Arizona 85012

Chairman
Atomic Safety and Licensing Board
Panel
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Chairman
Atomic Safety and Licensing
Appeal Panel
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Secretary
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Attn.: Docketing and Service Section

James R. Tourtellotte, Esq.
Office of Executive Legal Director
BETH 042
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Paul C. Valentine, Esq.
400 Channing Avenue
Palo Alto, California 94301

Yale I. Jones, Esq.
100 Van Ness Avenue
19th Floor
San Francisco, California 94102

Philip A. Crane, Jr.

Philip A. Crane, Jr.
Attorney
Pacific Gas and Electric Company

Dated: August 25, 1977