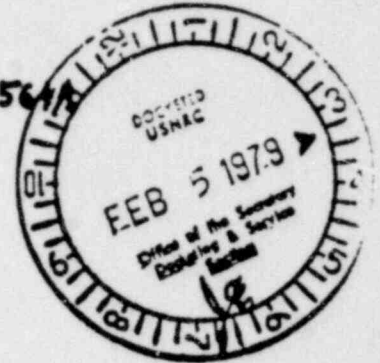


UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD
NRC PUBLIC DOCUMENT ROOM

In the Matter of)
)
PACIFIC GAS AND ELECTRIC)
COMPANY)
(Stanislaus Nuclear Project,)
Unit No. 1))

NRC Docket No. P-567



ANSWERS TO THE
NRC STAFF'S FIRST SET OF SUPPLEMENTAL
INTERROGATORIES PROPOUNDED TO PGandE

Pacific Gas and Electric Company ("PGandE") pursuant to 10 C.F.R. §2.740b hereby answers the NRC Staff's First Set of Supplemental Interrogatories Propounded to PGandE.

Notes

1. These answers constitute PGandE's response to the NRC Staff's First Set of Supplemental Interrogatories based on information readily available. By agreement of the parties approved by the Board the remainder of the Interrogatories will be answered by April 4, 1979.

2. An explanation of the county codes used in Exhibit C and Exhibit E are attached to each exhibit.

Definitions

1. "PGandE" means the Pacific Gas and Electric Company.
2. "wholesale" means firm power sold for resale.
3. "SMUD" means the Sacramento Municipal Utility District.
4. "WAPA" means the Western Area Power Administration of the U.S. Department of Energy, successor to the Bureau of Reclamation of the U.S. Department of the Interior.

1. State, describe, or show by appropriately drawing, marking, and labelling on PGandE's map number 52532 (PGandE discovery document number LRT 568674), or its equivalent, the following:

- (a) (i) The boundary of PGandE's retail service area;
- (ii) The boundary of PGandE's wholesale service area;
- (iii) The boundary of PGandE's service area.

PGandE's Map No. 52532 (PGandE Discovery Document No. LRT 568674) which is attached as a part of these answers as Exhibit A and entitled "Electric Transmission System Showing Power Plants and Stations" shows PGandE's service area. In addition, PGandE's electric service area is shown on PGandE's service area map filed with the California Public Utilities Commission ("CPUC"). This map entitled "Electric Service Area" (January 1, 1969, CPUC Sheet No. 4522-E) is attached as a part of these answers as Exhibit B. More detailed rate area boundary maps will be made available, if requested, pursuant to Rule 33(c) of the Federal Rules of Civil Procedure. The boundaries of PGandE's retail and wholesale service area are the same as the service area boundaries.

(b) PGandE's transmission and sub-transmission lines with voltage identification of all transmission lines between 69 kv and 500 kv, including all d.c. transmission lines and their voltages.

See Exhibit A which shows all transmission lines from 12 kv to 500 kv. There are no transmission lines in PGandE's service area.

(c) The location of all of PGandE's generating stations, plants, and units, identifying each by name, number, primary fuel type, and size (net and gross capacity).

The location and name of PGandE's generating stations are given on Exhibit A. In addition, the net capacity for both the summer and winter seasons, fuel type, the number of units of these

generating stations is found in Item 2-A of the Western Systems Coordinating Council's Reply to the U.S. Department of Energy, Order No. 383-5, ERA Docket No. R-362 (April 1, 1978) which is attached as a part of these answers as Exhibit C. PGandE does not measure the gross capacity of its generating stations.

(d) PGandE's planned transmission lines 115 kv and above, identifying the expected year of operation and operating voltage of each transmission line (These transmission lines should be shown up to and including PGandE's best estimate of the year when the Stanislaus Nuclear Units are expected to begin operation).

The answer to this Interrogatory is found in Item 5-B of Exhibit C to these answers and also in FERC Form 12-F, "Power Line Construction Data", which is filed with the Federal Energy Regulatory Commission. PGandE's Form 12-F for the year ending June 30, 1978 is attached as part of these answers as Exhibit D. FERC Form 12-F shows transmission lines whose construction is projected for the next six years.

(e) The location of PGandE's planned generation [sic] stations, plants and unit additions, identifying each by name, number, expected primary fuel type, and size (net and gross capacity).

PGandE's planned generating stations and planned changes to existing facilities, the name, fuel type, location by county, and their net capacity are found in Item 2-B of Exhibit C to these answers (which does not project beyond 1987) and on Form R-4 of "Pacific Gas and Electric Company Electric, Supply Plan Forms and Summary of Loads and Resources 1978-1998, Common Forecasting Methodology--II, ERDC Docket No. 77-EA-10, March 1978", which is attached as a part of these answers as Exhibit E.

(f) The identity of all other electric utilities operating or serving, at wholesale or retail, wholly or partially, within PGandE's service area boundary or within 100 miles of PGandE's service area boundary, and for each (except for Southern California Edison Company and Los Angeles Department of Water and Power) identify:

(i) the boundary of its service area:

The service area boundaries of the other electric utilities operating or serving at wholesale or retail wholly or partially within PGandE service area boundaries or within 100 miles of PGandE's service area boundary are shown on a map issued by the CPUC entitled "Electric Service Areas Within One Mile of Distribution Facilities 35 kv or less", dated July, 1969, which is attached as a part of these answers as Exhibit G. The only change to this map is that the Alex Brown Electric Company has been sold to and its territory annexed to the Sacramento Municipal District.

(ii) the location of its generating stations, plants, and units in California, stating each by name, number, primary fuel type, and size (net and gross capacity):

The location, name, and primary fuel types of the generating stations belonging to these other utilities is shown on a map issued by the U.S. Department of Energy, Western Area Power Administration, Sacramento Area Office, entitled "Interconnected Transmission Systems" dated September, 1978, which is attached as a part of these answers as Exhibit F. The capacity and fuel type of these generating stations as well as the number of units are given in the Electric World Directory of Utilities 1978-1979, 87th Edition, McGraw-Hill Publications Company, New York, NY, 1978.

(iii) its transmission and subtransmission lines in California with voltage identification of all transmission lines between 69 kv and 500 kv:

See Exhibit F to these answers.

(g) The location of all of PGandE's interconnections, connections, and delivery points, with each and every other electric utility.

Exhibit F displays the interconnection and metering points. With respect to those irrigation and water districts from whom PGandE

purchases the entire power output, the point of connection is at the high side of the bus bar at each power house.

The remaining interconnection points or deliver points are as follows:

<u>Utility</u>	<u>Point</u>
WAPA	Folsom, Cottonwood, San Luis, and the Tracy Pumps
City of Lodi	Lodi
City of Alameda	Oakland Stations C, J, and X.
City of Lompoc	Lompoc
City of Santa Clara	Scott and Kifer
City of Palo Alto	Palo Alto
City of Gridley	Gridley
City of Biggs	Peachton
City of Roseville	Roseville B
City of Redding	Redding and Churn Creek
City of Ukiah	Ukiah
City of Healdsburg	Healdsburg
SMUD	Hedge, Hurley, and Orangevale
Modesto Irrigation Dist.	Parker
Turlock Irrigation Dist.	Walnut
City and County of San Francisco	Warnerville and Newark
Southern California Edison Co.	Springville and Midway
Pacific Power and Light Co.	Indian Springs and Delta
Sierra Pacific Power Co.	Summit
California Pacific Utilities Co.	Chester and Westwood
Bay Point Power and Light Co.	Clayton

5. State on a monthly or annual (or otherwise maintained) basis, whichever the company utilizes, from the present time to the most future date projected, the most recent PGandE reserve projections for each of the categories listed below:

(a) Total reserves available for the control area:

See Form R-11 of Exhibit E to these answers for (1) a description of PGandE's reserve planning methodology and reserve criteria and PGandE's spinning reserve requirement and (2) a forecast of reserve requirements for the period 1978-1987.

(b) Reserves for PGandE's own, or native, load:

This information is not available.

(c) Spinning reserves for the control area:

This information is not available.

(d) The portion of reserves for PGandE's own, or native, load which is spinning reserves:

This information is not available.

(e) Standby reserves for the control area:

See the answer to 5(a) above.

(f) On-line reserves for the control area:

This information is not available.

(g) Operating reserves for the control area:

This information is not available.

(i) Reserves available from other electric utilities by type, amount, and supplier:

See the answer to Interrogatory 5(a) above.

(j) Any other reserves identified in answer to interrogatory 2(g) above, used by PGandE, buy type, amount, and supplier.

This information is not available.

6. State, from the present time to the most future data projected, the most recent PGandE projections of expected power (of each and every type or name known to PGandE) purchases, sales, and exchanges, (including all banking and reserve arrangements), denoting for each of the parties, dates of transactions, and expected capacity and/or energy involved.

Projections of energy purchases are found in Form R-8 and on pages 20 and 21 of Form R-3 of Exhibit E to these answers for hydro-electric capacity purchased from or exchanged with others in the area system. Attached as Exhibit H to these answers is a monthly estimate of purchased power for the years 1979 through 1981, which is dated November 13, 1978.

7. Identify each and every capacity and/or energy bank account maintained by PGandE with or for any other electric utility, and for each separately state, from 1973 to the present, inclusive, the monthly (or otherwise maintained) balance of all capacity and/or energy.

PGandE maintains three banking arrangements with other utilities, SMUD, and WAPA, and Pacific Power and Light Company ("PP&L").

The banking arrangements with WAPA are described in Article 20(a) - (c) of the WAPA Contract with PGandE for the Sale, Interchange, and Transmission of Electric Capacity and Energy, No. 14-06-200-2948A, dated July 31, 1967, a copy of which has been furnished previously,

The banking arrangements with SMUD are described in Article 8 of the PGandE - SMUD Power Sale, Exchange, and Integration Contract, dated June 4, 1970, as amended on September 11, 1975.

The banking arrangements with PP&L are described in Service Schedule B to the PP&L - PGandE Agreement, dated September 20, 1967, as amended on August 7, 1973.

The statement of the monthly balances of these accounts is attached as a part of these answers as Exhibit I (WAPA), and Exhibit J (SMUD), and Exhibit K (PP&L).

8. (a) State the projected and/or the expected power flows on all segments of the entire transmission system (115 kv and above) in PGandE's control area at the time of the control area annual peak load for the years when each of the units of the Diablo Canyon and Stanislaus Nuclear Plants are expected to begin operation and for the years when the first units of the Mendocino and San Joaquin Nuclear Plants had been expected to begin operation.

For the Diablo Canyon Units: See Form 4-E5 to Exhibit E to these answers which contains the summer 1978 and summer 1983 peak load power flow case study printouts. The 1978 summer case study printouts has one Diablo Canyon Unit, and the 1983 summer case study printout has two Diablo Canyon units. These two printouts indicate the approximate transmission line loadings. In any case, it should be approximate transmission line loadings. In any case, it should be recognized that such cases are developed by transmission planners and that the interchange and generation schedules are chosen to stress the transmission system. Consequently, the generation allocation is not necessarily typical for a peak load condition and does not necessarily reflect operating practices.

For the Stanislaus Nuclear Units: The Stanislaus units are not expected to be in operation within the span of time used to plan transmission facilities. Therefore, a power flow representing these units for the year of expected initial operation is not available.

For the San Joaquin Nuclear Project: The lead agency for this project was the Department of Water and Power of the City of Los Angeles (LADWP) did the power flow analysis for this project. Only an approximate power flow was set up using a Western Systems Coordinator Council. PGandE does not have the detailed power flows in its files.

For the Mendocino Nuclear Units: These units were removed from PGandE's resource plans in 1972. PGandE did not retain any detailed power flows in its files for the expected initial operating year.

(b) For each such projected and/or expected power flow, identify each generating unit of 100 MW capacity or greater which was projected and/or expected to contribute to such power flow and state the projected and/or expected power output of each such generating unit.

See Form 4-E5 of Exhibit E to these answers.

9. State the projected and/or the expected power flow on all segments of the entire transmission system (115 kv and above) in PGandE's control area at the time of the control area annual minimum load for the years when each of the units of the Diablo Canyon and Stanislaus Nuclear Plants are expected to begin operation and for the years when the first units of the Mendocino and San Joaquin Nuclear Plants had been expected to begin operation.

Since PGandE's transmission planning is only rarely concerned with minimum annual load (and then on a strictly local basis) PGandE does not prepare minimum annual load peak flows. Consequently, this information is not available.

Dated: February 2, 1979

MCCUTCHEN, DOYLE, BROWN & ENERSEN
MORRIS M. DOYLE
WILLIAM H. ARMSTRONG
Three Embarcadero Center
San Francisco, CA 94111

MALCOLM H. FURBUSH
PHILIP A. CRANE, JR.
JACK F. FALLIN, JR.
RICHARD L. MEISS
77 Beale Street
San Francisco, CA 94106

By 
Attorneys for Pacific Gas and
Electric Company

VERIFICATION

I, Nolan H. Daines, verify under penalty of perjury that the following is true and correct:

I am the Vice-President Planning and Research of Pacific Gas and Electric Company and, as such, am authorized to make this verification on behalf of Pacific Gas and Electric Company.

I have read the foregoing ANSWERS OF PACIFIC GAS AND ELECTRIC COMPANY TO NRC STAFF'S FIRST SET OF SUPPLEMENTAL INTERROGATORIES and know the contents thereof. The subject matter of these answers falls within my general area of responsibility. I am informed that the answers are true and correct, and I believe them to be true and correct.

Executed on February 2, 1979 at San Francisco, California.

Nolan Daines

NOLAN H. DAINES
Vice-President
Planning and Research



CERTIFICATE OF SERVICE BY MAIL

Richard L. Meiss certifies that he is an active member of the State Bar of California; that he is not a party to the within cause; that his business address is 77 Beale Street, San Francisco, California 94106; and that he caused an envelope to be addressed to each of the following named persons, enclosed and sealed in each envelope a copy of the foregoing document(s) and deposited each envelope with postage thereon, fully prepaid, in the United States mail at San Francisco, California on February 2, 1979.

George Spiegel, Esq.
Robert C. McDiarmid, Esq.
Sandra J. Strebel
Daniel I. Davidson, Esq.
Peter K. Matt, Esq.
Spiegel & McDiarmid
2600 Virginia Avenue, N.W.
Washington, D.C. 20037

Docketing and Service Section
Office of the Secretary
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

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

Donald A. Kaplan, Esq.
Antitrust Division
U.S. Department of Justice
P.O. Box 14141
Washington, D.C. 20044



Seymour Wenner, Esq.
Atomic Safety and Licensing Board
4807 Morgan Drive
Chevy Chase, Maryland 20015


Edward Luton, Esq.
Atomic Safety and Licensing Board
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Joseph Rutberg, Esq.
Benjamin H. Vogler, Esq.
Jack R. Goldberg, Esq.
David J. Evans, Esq.
NRC Staff Counsel
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Michael J. Strumwasser
Deputy Attorney General of
California
555 Capitol Mall, Suite 550
Sacramento, California 95814

H. Chester Horn, Jr.
Deputy Attorney General
Office of the Attorney General
3580 Wilshire Blvd., Suite 800
Los Angeles, California 90010

Clarice Turney, Esq.
Office of the City Attorney
3900 Main Street
Riverside, California 92521


RICHARD L. MEISS