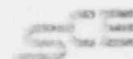


Southern California Edison Company



P.O. BOX 800  
2244 WALNUT GROVE AVENUE  
ROSEMEAD, CALIFORNIA 91770

DAVID N. BARRY III  
ASSISTANT GENERAL COUNSEL

LAW DEPARTMENT

TELEPHONE  
(213) 572-1920

August 10, 1979

*Rec'd 8/14/79*

Mr. Argil L. Toalston, Chief  
Power Supply Analysis Section  
Antitrust & Indemnity Group  
Office of Nuclear Reactor Regulation  
Nuclear Regulatory Commission  
Washington, D.C. 20555

Dear Mr. Toalston:

Attached are Southern California Edison Company's responses to the questions you asked in your memorandum of May 11, 1979. A number of references are made to the prepared testimony which Edison filed with the Federal Energy Regulatory Commission on May 7, 1979 in connection with Docket No. E-7777 (Phase II). I sent a set of this testimony to Jack Goldberg on May 10, 1979, and I assume it is available for your reference.

All of the parties in the E-7777 proceeding filed opening briefs at the commencement of the hearings. I am enclosing a copy of Edison's opening brief for your information.

As you may have heard, Arizona Public Service Co. announced that it was terminating the Palo Verde Nuclear Generating Station Units 4 and 5 project. The Antitrust & Indemnity Group has been conducting the antitrust review for San Onofre Units 2 and 3 (operating license stage) and Palo Verde Units 4 and 5 (construction permit stage). It would appear that the review should now be limited to the San Onofre project. Operating license stage submittals will be made shortly for Palo Verde Units 1-3.

Please let me know if you require any additional information or have any questions.

Very truly yours,

*James E. Taha for David N. Barry*

David N. Barry

*Attachments  
To Reg  
FILE*

*609 001*

*Dist Per  
A. Toalston  
8/15/79*

*None  
8/15/79*

DNB:dc  
Attachments

7908160358

RESPONSES TO NRC DATA REQUEST DATED MAY 11, 1979

REQUEST N° 1

Mr. J. T. Head, Jr.'s August 31, 1976 report to the Energy Resources Conservation and Development Commission indicated that studies were underway to determine the feasibility of increasing the capacity of the Pacific Intertie 500 kV AC lines and/or the 800 kV DC line, including constructing a third 500 kV AC line and another DC line to the Arizona area. Please advise us of the results of these studies, including any preliminary or final reports that are available. Were the Cities invited to participate in these studies? To what extent were the power needs of the Cities considered in these studies? Please provide all documents that discuss the relationship between these transmission lines and the needs of or desires of the Cities to buy from, sell to or exchange power with the Northwest.

RESPONSE NO. 1

Mr. J. T. Head's August 31, 1976 report to the Energy Commission was a partial revision of Edison's Biennial Forecast of Electric Loads and Resources Report of March 1, 1976 (Biennial Report). This revision did not mention any Pacific Intertie studies. However, in the Biennial Report, Form No. 5, Edison did mention that a study was begun in late 1975 to determine the feasibility of increasing the capacity of the Pacific Intertie 500 kV AC lines and/or 800 kV DC line. Edison, Bonneville Power Administration (BPA), Pacific Gas & Electric Company (PG&E), San Diego Gas & Electric Company (SDG&E) and Los Angeles Department of Water and Power (Los Angeles) were mentioned as study participants. That effort developed generally as a result of a proposal made by BPA in 1974 to increase the capacity of the existing 500 kV AC lines from 2100 MW to 2700 MW (copy attached as Attachment 1).

Subsequently, that study effort was expanded and formalized under the auspices of the Coordinating Committee - Third 500 kV AC line. Attachment 2 is a copy of an August 20, 1976 letter from Mr. Hector J. Durocher of BPA, announcing the formation of the Committee and inviting all interested parties to participate and/or attend meetings. The only known report to be issued was the final report of the Pacific Intertie Upgrading Task Force transmitted by letter dated January 31, 1977, by Mr. C. E. Postel of Edison (copy attached as Attachment 3). That report not only included cost estimates for a third 500 kV AC line, but also presented other methods for upgrading both the AC and DC portions of the Pacific Intertie. On January 12, 1977, Mr. Durocher wrote to the other Committee members announcing a delay in the study efforts due, in part, to problems in evaluating sustained



Northwest hydro peaking capability. Edison is not aware of any subsequent meetings of this Committee.

With respect to the proposed second DC line to the Arizona area, during the latter part of 1975, United States Bureau of Reclamation (USBR), BPA, Salt River Project (SRP), Arizona Public Service (APS), and Nevada Power Co. initiated studies to determine the feasibility of such a second DC line, and issued a report in April 1976. In mid-1976, USBR and BPA requested and received expressions of interest in such a line. Attachment 4 is a copy of an August 3, 1976 letter from Mr. W. R. Gould of Edison expressing Edison's interest. Attachment 5 is a copy of an August 5, 1976 list of all entities expressing interest, which was handed out at a meeting by USBR. Since that time, studies have continued to determine if construction of the line could be justified. To Edison's knowledge, the last meeting was held on July 18, 1978. Attachment 6 is a copy of a July 21, 1978 letter from Mr. Hector Durocher of BPA referencing that meeting and outlining additional study needs. A meeting was scheduled for January 11, 1979, but was cancelled.

With respect to the present study of the feasibility of upgrading the existing 800 kV DC line to  $\pm$  500 kV:

1. Attachment 7 is a copy of a November 17, 1978 letter from Mr. Hector J. Durocher of BPA outlining proposed activities and inviting participation by interested parties.
2. Attachment 8 is a copy of a January 26, 1979 report on "Feasibility of Upgrading the Pacific DC Intertie to  $\pm$  500 kV."
3. Attachment 9 is a copy of an April 23, 1979 letter from Sterling Munro of BPA referencing the January 26, 1979 report and suggesting certain joint staff work.
4. Attachments 10 and 11 are copies of Edison's May 11, 1979 and Los Angeles' June 5, 1979 responses to Mr. Munro's letter, respectively.
5. Attachment 12 is a copy of Edison's June 29, 1979 letter to Los Angeles agreeing to pay its share of Phase I study costs.

#### REQUEST NO. 2

Mr. Head, Jr.'s August 1976 report to the Energy Commission indicated several joint projects which Edison has or planned to participate in, including Mohave Coal, Four Corners Coal, and Palo Verde Nuclear. Were the Cities invited to participate in the studies associated with these projects? Please provide all documents

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available discussing the participation of the Cities in any of these projects or the impacts of the Cities' participation on the associated transmission or generation plans.

RESPONSE NO. 2

The August 1976 report to the Energy Commission prepared by Mr. Head, Jr. does not discuss or mention joint projects. However, that subject is discussed in the Biennial Report. Form 6 of that report, which deals with inter-utility transactions, lists four existing and three planned joint projects to which Edison is a party.

The existing projects mentioned in that report are San Onofre Nuclear (Unit 1), Mohave Coal (Units 1 and 2), Four Corners Coal (Units 4 and 5), and Axis Steam. Most of these projects were planned in the early to mid-1960's and were put into operation prior to the 1972 Settlement Agreements with the Cities of Anaheim, Azusa, Banning, Colton, Vernon and Riverside. The operation dates of those projects were: San Onofre Unit 1, 1/1/68; Mohave Coal Units 1 and 2, 4/1/71 and 10/1/71, respectively; Four Corners Coal Units 4 and 5, 7/1/69 and 7/1/70, respectively; and Axis Steam, 4/14/59.

During the early to mid-1960's, Edison did not invite participation by any other municipal systems except Los Angeles, and no other municipal systems sought participation in these units. At the time of their planning, the electrical needs of the Cities of Anaheim, Azusa, Banning, Colton, Vernon and Riverside were being met by Edison under full requirements contracts.

REQUEST NO. 3

Are there any proposed plans or feasible means, that SCE is aware of, available to the Cities for moving firm power to or from the Northwest other than their present entitlements in the present DC tie? If so, please describe and furnish any relative documents.

RESPONSE NO. 3

Edison is not aware of any proposed plans or feasible means by which any Cities other than present owners (the Cities of Los Angeles, Glendale, Burbank and Pasadena) could move firm power to or from the Northwest using the existing 800 kV DC line. Edison participated proportionately in the recently increased rating of the DC line, and Edison would likewise expect to participate in any further upgrading of the capability of the DC line. Such participation by Edison, as well as participation by the other owners and entitlement holders would be based upon the existing contractual provisions of the agreements applicable to the entitlements in the DC line.

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With respect to the existing two 500 kV AC lines, Edison is not aware of any proposed plans or feasible means for any Cities to move firm power to or from the Northwest. Edison's position with respect to providing firm transmission service to others over the 500 kV AC lines is expressed in the E-7777 testimony of Mr. R. L. Mitchell at pages 14-18, and in Exhibits RLM 36 and 37. On page 2 of these Exhibits, Edison stated as follows in response to a question of whether it would provide firm transmission service to the Cities of Anaheim and Riverside for non-firm energy from the California-Oregon border to the Cities:

"Edison is the owner of the No. 1 and No. 2 Midway-Vincent 500-kV transmission lines, and it owns an entire interest in approximately one-half of the No. 3 Midway-Vincent transmission line. Pacific Gas and Electric Company owns entirely the other one-half of the latter line, and owns most of the 500-kV Pacific Intertie facilities from Midway Substation to the COB. The United States Bureau of Reclamation and Pacific Power and Light own northerly segments of the Midway-COB facilities. Edison has an entitlement in the 500-kV transmission facilities from the COB to Midway. Based upon its prior use of its entitlement in these facilities, Edison will at times need all of its entitlement to transmit firm, economy and surplus energy from the COB to Edison's system to serve the needs of Edison's customers. You surely can understand the appropriateness of Edison's utilizing its transmission facilities and capacity entitlements, the costs of which have been borne by all of Edison's retail and resale customers, equitably and in a non-discriminatory manner so that the benefits of lower cost energy available to Edison in the Northwest will be fairly apportioned among and shared by all of Edison's retail and resale customers. Edison is therefore unable to provide Riverside with firm transmission service for non-firm energy from the COB to Edison's 220-kV network."

Because construction of other new lines to the Northwest is so speculative at this time, Edison is not aware of any proposed plans or feasible means by which any Cities could move firm power to or from the Northwest utilizing newly constructed transmission lines. While construction of a second DC line and a third 500 kV AC line has been studied and discussed, there are no definite plans for the construction of such lines.

REQUEST NO. 4

With respect to the second DC tie from the Northwest to the Phoenix area that is being studied, has SCE offered to share in the ownership of transmission lines or to provide firm transmission to any of the Cities for transmitting power to or from the Phoenix area to California so that the Cities can consider an entitlement in the

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second DC tie? If so, please describe and furnish any relevant documents. If not, are there any other feasible means, that SCE is aware of, for the Cities to obtain firm transmission to move such power entitlements to or from the Phoenix area to California? If so, please describe and furnish any relevant documents.

RESPONSE NO. 4

With respect to the second DC tie from the Northwest to the Phoenix area that is being studied, Edison has neither been requested nor offered to share in the ownership of any transmission lines from the Phoenix area to California nor to provide firm transmission service thereover to any of the Cities. Edison has received such requests from the Cities of Anaheim and Riverside in connection with their possible participation in Palo Verde Units 1, 2, and 3. That matter is discussed in Response No. 5.

As indicated in Response No. 1 and in Attachment 6, the earliest planned operating date for the second DC line is now in the late 1980's and studies are still being conducted to determine if construction of the line is justified. Accordingly, no specific plans are now being studied for new transmission from the Phoenix area to California for the purpose of transmitting Northwest power. If the second DC line becomes a reality, any associated transmission requirements between Phoenix and California would be coordinated among the parties involved.

REQUEST NO. 5

Has SCE offered to share in the ownership of transmission lines or to provide firm transmission service to any of the Cities for transmitting power from the Palo Verde Nuclear plant site? If so, please describe and furnish any relevant documents. If not, has SCE suggested or does SCE know of any other feasible means by which the Cities could move power to their systems from the Palo Verde site? If so, please describe and furnish any relevant documents.

RESPONSE NO. 5

Edison's discussions with the Cities of Anaheim and Riverside regarding ownership of transmission lines or provision of firm transmission service to Anaheim and Riverside for transmitting power from the Palo Verde Nuclear plant site are discussed in the E-7777 testimony of Mr. R. L. Mitchell, pages 36-39. An example of the difficulties encountered in planning and achieving firm arrangements for new transmission facilities between the Nevada-Arizona area and California was the cancellation of the Palo Verde Units 4 and 5 project on July 16, 1979 by Arizona Public Service Company.

REQUEST NO. 6

The answer to question 13 of the Appendix L information for the Palo Verde Units 4 and 5, stated:

"During the past three years Edison has been negotiating with the Cities of Anaheim, Riverside and Banning (under agreement to maintain the negotiations privileged) concerning one or more definitive Integrated Operation Agreements, whose negotiations were contemplated by the Settlement Agreement. Inasmuch as these negotiations are confidential and privileged, no further reference to them is made with this submittal."

These settlement negotiations have now been going on for over eight years. As the Attorney General's antitrust advice was in part based on the Settlement Agreement and the commitments therein, Staff does not believe that it can advise the Commission that there have been significant changes since the San Onofre construction permit antitrust review if information regarding the integration agreements is not available. In order for us to continue our review, we therefore request that you consider and advise us as to ways in which this information could be made available to us, including the latest draft copies of the integration and associated agreements with each City and detailed descriptions and related correspondence indicating those matters which remain to be resolved.

RESPONSE NO. 6

Integrated Operations Agreements (IOA's) were entered into by Edison and each of the Cities of Anaheim and Riverside. These agreements were tendered for filing with the FERC in March 1978 and accepted for filing on June 7, 1979. A copy of the IOA with Anaheim, which is identical to the Riverside IOA, except for the City designation, is attached to the E-7777 testimony of Mr. R. L. Mitchell as Exhibit RLM-4.

In October 1978, Edison received a letter from Mr. George Spiegel, on behalf of the Cities of Azusa, Banning and Colton, expressing the interest of those Cities to enter into IOA's with Edison. Edison responded with the suggestion that the Cities review the Anaheim IOA and then advise Edison of any provisions contained therein which in their view should not be made applicable. Copies of these letters are attached to Mr. Mitchell's E-7777 testimony, referred to above, as Exhibits RLM-2 and RLM-3.

In June 1979, Edison received a letter from Mr. George Spiegel, on behalf of the Cities of Azusa, Banning and Colton, requesting Edison to prepare drafts of IOA's for each of these Cities. On June 28, 1979, Edison responded indicating it was prepared to proceed with negotiations to enter into IOA's with the Cities of Azusa, Banning



and Colton. Edison again requested each of the Cities to review the Anaheim and Riverside IOA's which had been accepted for filing by FERC and to advise Edison of any provisions in those agreements which the Cities believe should not be included in IOA's with the Cities. On July 20, 1979, Mr. Spiegel again wrote to Mr. John Bury of Edison concerning the process of negotiating these agreements, and Mr. Bury responded to Mr. Spiegel by letter dated July 27, 1979. Copies of these last four letters are attached as Attachments 13, 14, 15, and 16.

REQUEST NO. 7

Does Section 8.01(b) of the California Power Pool agreement require written permission of the other Parties for SCE to utilize outside sources of power such as Palo Verde? If so, has SCE obtained such written permission for Palo Verde? If the Cities were to obtain ownership participation in Palo Verde, would separate additional permission of the Parties be required for SCE to integrate the Cities' portions of Palo Verde into SCE's Area System?

RESPONSE NO. 7

Paragraph 8.01(b) and the manner in which it has and could be used is discussed in the E-7777 testimony of Mr. R. L. Mitchell, pages 73-78. Paragraph 8.01(b) provides a basis for the parties to the agreement to review and raise any questions they may have regarding the reliability of an off-system generating resource that another party plans to include as a capacity resource. Ordinarily, any such questions would be raised and resolved at the time the Board of Control reviews and approves the loads and resources programs submitted semi-annually by each party. Edison's share of Palo Verde Units 1, 2 and 3 has been included in Edison's loads and resources program since 1976; consequently, the other CPPA Parties have had ample opportunity to consider the reliability of this resource and raise any questions that they might have. No such questions have been raised as of this date. Edison's planned participation in Palo Verde Units 4 and 5 was never submitted since the loads and resources program covers only a seven-year period, and the planned operating dates were 1988 and 1990, respectively.

If the Palo Verde Units 4 and 5 Project had not been terminated and if Anaheim and Riverside had acquired an ownership interest therein and integrated that resource under their IOA's with Edison, Edison would have included their participation (along with its own) in its Area System loads and resources program (to be submitted in 1982), just as if the resource were owned by Edison. This program would have been reviewed by the other CPPA Parties and if they had questions regarding the reliability of Palo Verde Units 4 and 5, they could have been raised at that time. However, as stated above, the parties have already reviewed loads and resources programs that

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included Edison's participation in Palo Verde Units 1, 2 and 3, and there is little reason to believe that any concerns would have been raised with Units 4 and 5.

REQUEST NO. 8

Will any of the Cities have ownership participation in San Onofre Units 2 and 3? If so, please supply the names of such Cities and their respective shares. Please supply a copy of the nuclear plant participation agreement if completed and, if not, the latest draft with a discussion of the issues that remain to be resolved. Please also supply a copy of the final or latest draft of all other power supply or coordination agreements associated with such participation in the nuclear plant.

RESPONSE NO. 8

The Cities of Anaheim and Riverside will have ownership shares in San Onofre Units 2 and 3. Anaheim will own 1.66 percent, and Riverside 1.79 percent. These Cities' participation and other related agreements have been completed. However, in accordance with the Letter Agreement Among Southern California Edison Company, San Diego Gas & Electric Company, City of Riverside, and City of Anaheim, dated June 29, 1979, Attachment 17, these agreements will not be executed by the parties thereto until Edison has received NRC approval to transfer ownership interests in San Onofre to the Cities. An application for such approval and amendment to existing NRC licenses was filed with the NRC on July 19, 1979. Attachments 18, 19, 20, 21 and 22 are copies of the San Onofre Units 2 and 3 Participation Agreement, the Edison-Riverside San Onofre Transmission Service Agreement, the Supplemental Agreement for the Integration of Riverside's Entitlement in SONGS 2 and 3, the Edison-Anaheim San Onofre Transmission Service Agreement, and the Supplemental Agreement for the Integration of Anaheim's Entitlement in SONGS 2 and 3. A copy of the Integrated Operations Agreement with Anaheim, which is identical to the Riverside IOA, except for the City designation, is attached to the E-7777 testimony of Mr. R. L. Mitchell. (See Response No. 6.)

## Memorandum



DATE : April 8, 1974

in reply refer to : EOB

TO : E. Goldhammer  
Asst. Administrator (Power Manager) - PFROM : G. S. Bingham, Asst. Administrator  
for Engineering and Construction - E

SUBJECT: Pacific NW-SW Intertie Capacity

Through prior agreement with PG&E the capacity of the a-c Intertie will be upgraded to 2100 MW this spring. This increase involves mainly controls to apply the Chief Joseph breaking resistor and switch the quick insertion series capacitors for certain 500-kV faults in California.

Studies have been made to determine Intertie capability if the existing series capacitors are upgraded. That study concluded that the system is stable for a loading of 2700 MW, which is the thermal load limit of the line conductor and switchgear when one line is out of service.

The estimated cost of upgrading the series capacitors in the BPA and PGE Intertie lines is approximately \$11,000,000. That figure includes the cost to improve the reliability of the protective equipment and increase the current rating. Approximately 68 percent of the cost is required on the BPA lines and 32 percent is required on the PGE line from Grizzly to Malin.

Increasing the Intertie capacity to 2700 MW will permit marketing approximately 1200 GWh of additional surplus energy to the southwest during an average water year. This incremental energy assumes completion of Phase 2 of the Hydro-Thermal Program.

Using the proposed new wholesale rates for surplus energy and wheeling on the Intertie, the incremental BPA revenue would be in the order of three and a quarter million dollars per year. That represents a benefit to cost ratio of approximately 2.9.

Without Phase 2 of the Hydro-Thermal Program the incremental surplus energy would be in the order of 900 GWh. The benefit to cost ratio would be reduced to 2.2.

An increase in the capacity of the a-c Intertie lines to 2700 MW will also require modification of the series capacitors on the USBR and PG&E Intertie lines in California.

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Memo to B. Goldhammer - P, Subject: Pacific NW-SW Intertie Capacity

In view of the favorable benefit to cost ratio that can be obtained through increased series capacitor rating, it is suggested that upgrading to 2700 be discussed with the California Utilities and other parties to the Intertie.

*J. S. Bringham*

BB Eastvedt:pm 4-8-74

- cc:
- C. B. Foleen - A
- H. Krogitzer - A
- H. J. Durocher - S
- E. S. Gens - EI
- J. G. Schaufelberger - EO
- Official File - ECB

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## United States Department of the Interior

BONNEVILLE POWER ADMINISTRATION  
P.O. Box 3621, PORTLAND, OREGON 97208



In reply refer to:

P

August 20, 1976

To Those Indicated on the Attached List:

Gentlemen:

Attached are a copy of my notes on the August 10, 1976, meeting held in San Francisco relative to construction of a third 500-kV a-c Pacific Northwest-Pacific Southwest intertie; an attendance list; and copies of data discussed at the meeting.

As indicated in the notes, the group concluded that it should become the Coordinating Committee--Third 500-kV A-C Line. All interested parties are invited to name a representative to the committee and/or attend all committee meetings.

The next meeting was set for 9 a.m., on September 16 in room 464 of the BPA office in Portland.

Sincerely yours,

Hector J. Durocher  
Assistant Administrator  
for Power Management

6 Enclosures:

Meeting Notes

Attendance List

Assumptions for Econ. Eval. of 3rd A-C Line  
to California (Preliminary) 8/5/76

Charts 1-4

Principles for Exchange of Forced-Outage  
Reserve Capacity (Preliminary) 8/9/76Proposed Principles for Reserve Sharing  
Between the PNW and California

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NOTES OF AUGUST 10, 1976, MEETING  
REGARDING FEASIBILITY OF A THIRD 500-kV A-C  
PACIFIC NORTHWEST-CALIFORNIA INTERTIE

The Committee convened at 10:45 a.m. at the office of Pacific Gas & Electric Company in San Francisco. An attendance list is attached.

Mr. Durocher summarized ongoing studies in the Pacific Northwest to analyze the capability of the hydro system to produce sustained peaking operations during the summer months. Most of the available data relates to instantaneous or hourly peaking capability. The summer-winter diversity-capacity exchanges both with Arizona and Nevada utilities and with California utilities assume supply of peaking capacity 8 hours per day, 5 days per week. More careful study and evaluation is needed of the ability to sustain such operations, the effect on daily and weekly pond and tailwater fluctuations and of seasonal drawdown of reservoirs.

Because of concerns for seasonal reservoir drawdown and because seasonal load shapes in the Pacific Northwest and Pacific Southwest seem to peak for 3 to 5 months, it appears that maximum diversity-capacity exchanges should be limited to 3 months (June through August and December through February) with exchanges in adjacent months limited to about 50 percent of the maximum (see Chart 4 of Attachment 2). The Pacific Northwest also would want a right to obtain return within 1 week of the energy supplied if water conditions are such that storage reservoirs are being drafted excessively in any season. In such years, the Pacific Northwest would need to purchase winter energy in order to obtain return of the diversity capacity.

The Economic Evaluation Task Force prepared a benefit-cost analysis of the third A-C line assuming that line capacity not required for reserves pooling would be used to effect diversity-capacity exchanges. It indicates a benefit-cost ratio of more than two to one. The diversity-capacity exchange appears to be the most probable use of both existing and future intertie lines for firm transactions, since it seems improbable that BPA will be able to renew its capacity-energy exchange contracts when they expire.

Mr. Shackelford said that load management may have significant future impacts on the relationship of summer-winter loads in California. This will need further evaluation in considering the benefits of future seasonal diversity-capacity exchanges.

Mr. Blood reviewed the preliminary benefit-cost analysis, Attachment 1, and the underlying assumptions. Mr. Perry questioned the line capacity used, indicating it should be about 2,000 megawatts. He also said the California reserves savings through pooling reserves should be at least 700 megawatts. There were other comments on capacity available

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for surplus energy transactions. The committee agreed, however, that based on the study assumptions, which need verification, the third A-C intertie appears to be feasible.

Mr. Blood also reviewed the graphs, Attachment 2, Charts 1-4. He pointed out that surplus capacity shown for California utilities was before reduction for reserves while that shown for the Pacific Northwest was after reserves.

Messrs. Gjelde and DuBois reviewed draft principles for reserves sharing, Attachments 3 and 4, respectively. Several comments were received that will be considered in subsequent redrafts.

Mr. Perry suggested that the committee and task forces working on the third A-C intertie studies should be more formalized. He pointed out that a steering committee had been formed to guide the work related to the existing interties and this committee may be appropriate for a similar assignment on the third A-C line. After extended discussions including some discussion of combining with committees working on the second D-C line, it was concluded that this committee should become the Coordinating Committee, Third 500-kV A-C Line. It will assign, coordinate, and review work of involved task forces. All interested parties are invited to name representatives to the committee and/or attend all committee meetings. Minutes will be widely distributed. Mr. Durocher was elected chairman.

The following task forces are analyzing various aspects of the third A-C line:

Resource Analysis and Economic Evaluation Task Force

Forrest Blood, BPA, Chairman  
E. F. Timme, ICP  
Curt DuBois, SCE  
Jack Craig, LADWP  
Jerry Garman, Seattle City Light  
W. C. Lester, PG&E

Functions: Evaluate resources, loads, load diversities, maintenance requirements, probable transactions over and economic benefits of the third A-C line. The resources available in each region for intertie transactions and uses that will be made of existing lines as present contracts terminate will be considered first. Proposed transactions should be determined for the years 1984-85, 1989-90, and 1995-96.

Reserves Pooling Task Force

S. H. Moody, SCE, Chairman  
G. J. Bellenger, PG&E  
G. L. Nesbitt, SDG&E  
D. A. Reddie, LADWP  
A. D. Hanson, Power Pool  
Mark Crisson, Tacoma City Light  
Bob Wilson, PP&L  
Diana Jones, BPA

Functions: Review results of currently available studies and study capacity savings probable through pooling reserves in the Pacific Northwest and California in 1989-90 and 1995-96.

Technical Studies Task Force

C. C. Young, PG&E, Chairman  
M. D. Whyte, SCE  
D. Hopkins, SDG&E  
F. G. Schaufelberger, BPA  
D. E. Martin, PP&L  
A. A. Armstrong, PG&E  
D. Gray, Seattle City Light

Functions: Analyze system additions required, their operations in the WSCC systems, and costs of facilities to be added.

The next meeting was set for 9:00 a.m. on September 16, 1976, in Room 464 of the BPA office in Portland. The chairman of each task force will report to the committee on the current status of task force assignments.

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INTERTIE MAILING LIST

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San Francisco, California 94106

Mr. W. C. Lester  
Pacific Gas & Electric Company  
77 Beale Street  
San Francisco, California 94106

Mr. H. R. Perry  
Chief Planning Engineer  
Pacific Gas & Electric Company  
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San Francisco, California 94106

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609 017



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609 019

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B V . A O I 3 0 9 B 7

609 020

Third A-C Intertie Meeting  
Pacific Gas and Electric Company  
August 10, 1976

ATTENDANCE

| <u>Name</u>        | <u>Organization</u>             |
|--------------------|---------------------------------|
| Hec Durocher       | Bonneville Power Administration |
| Lyman Harris       | Alcoa                           |
| Curt DuBois        | So. California Edison           |
| Jerry Lohr         | City of Pasadena                |
| E. F. Timme        | Intercompany Pool               |
| Bob Mason          | Salt River Project              |
| Earl Gjelde        | Bonneville Power Administration |
| Jack Craig         | LA Dept. of Water & Power       |
| Hal Worcester      | Eugene Water & Electric Board   |
| D. E. Martin       | Pacific Power & Light Company   |
| Lloyd Harvego      | Calif. Dept. of Water Resources |
| Dick Ferreira      | Calif. Dept. of Water Resources |
| Forrest C. Blood   | Bonneville Power Administration |
| Jerry Garman       | Seattle City Light              |
| Glen E. Bredemeier | Portland General Electric Co.   |
| H. P. Braun        | Pacific Gas and Electric Co.    |
| W. C. Lester       | Pacific Gas and Electric Co.    |
| T. S. Swearingen   | Pacific Gas and Electric Co.    |
| H. R. Perry        | Pacific Gas and Electric Co.    |
| B. W. Shackelford  | Pacific Gas and Electric Co.    |

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12. When capacity flowing north (January through mid-April), 75 percent of total line capacity available to carry surplus secondary to the south. (25 percent of line capacity flowing north; assumes all of remaining 75 percent available to carry secondary.)
13. When capacity flowing south (mid-April through June), 75 percent of total line capacity available to carry surplus secondary to the south. (25 percent line capacity used for capacity diversity exchange.)
14. PNW capacity limitations on sale of surplus secondary energy not considered.
15. Regional surplus secondary energy benefits evaluated as the difference between 6 mill PNW secondary energy and 25 mil. PSW energy. PNW secondary energy is incremental cost of thermal energy in 1975 dollars.
16. Cost of lines based on BPA costs John Day-Malin and PG&E costs Malin-Tesla. Costs: BPA - \$134 million, PG&E - \$167 million.
17. Annual cost ratios: BPA - 10 percent; PG&E - 18½ percent.
18. Availability of sustained capacity in the PNW to supply capacity diversity exchange for 8 hours a day, 5 days a week, (approximately 25 percent load factor) must still be determined.

BPA - Branch of Power Resources  
August 5, 1976



Preliminary Costs for a Third AC Intertie Line

|   | <u>(Millions)</u> |
|---|-------------------|
| BPA portion - John Day-Malin<br>including series capacitors<br>and terminal equipment | \$112.0           |
| Upgrading existing series<br>capacitors   | \$ 22.0           |
| Total BPA   | \$134.0           |
| PG&E costs - Malin-Telsa<br>including series capacitors<br>and terminal equipment     | \$167.0           |
| Total PG&E  | \$167.0           |
| Total investment costs  | \$301.0           |

Based on a BPA annual cost ratio of  
10 percent and PG&E's of 18.5 percent,  
the total annual costs would be:

|      |             |
|------|-------------|
| BPA  | \$ 13.4     |
| PG&E | <u>30.9</u> |
|      | \$ 44.3     |

THIRD A-C LINE  
PNW AND PSW PEAK SURPLUSES  
AFTER RESERVES AND MAINTENANCE

1984-85

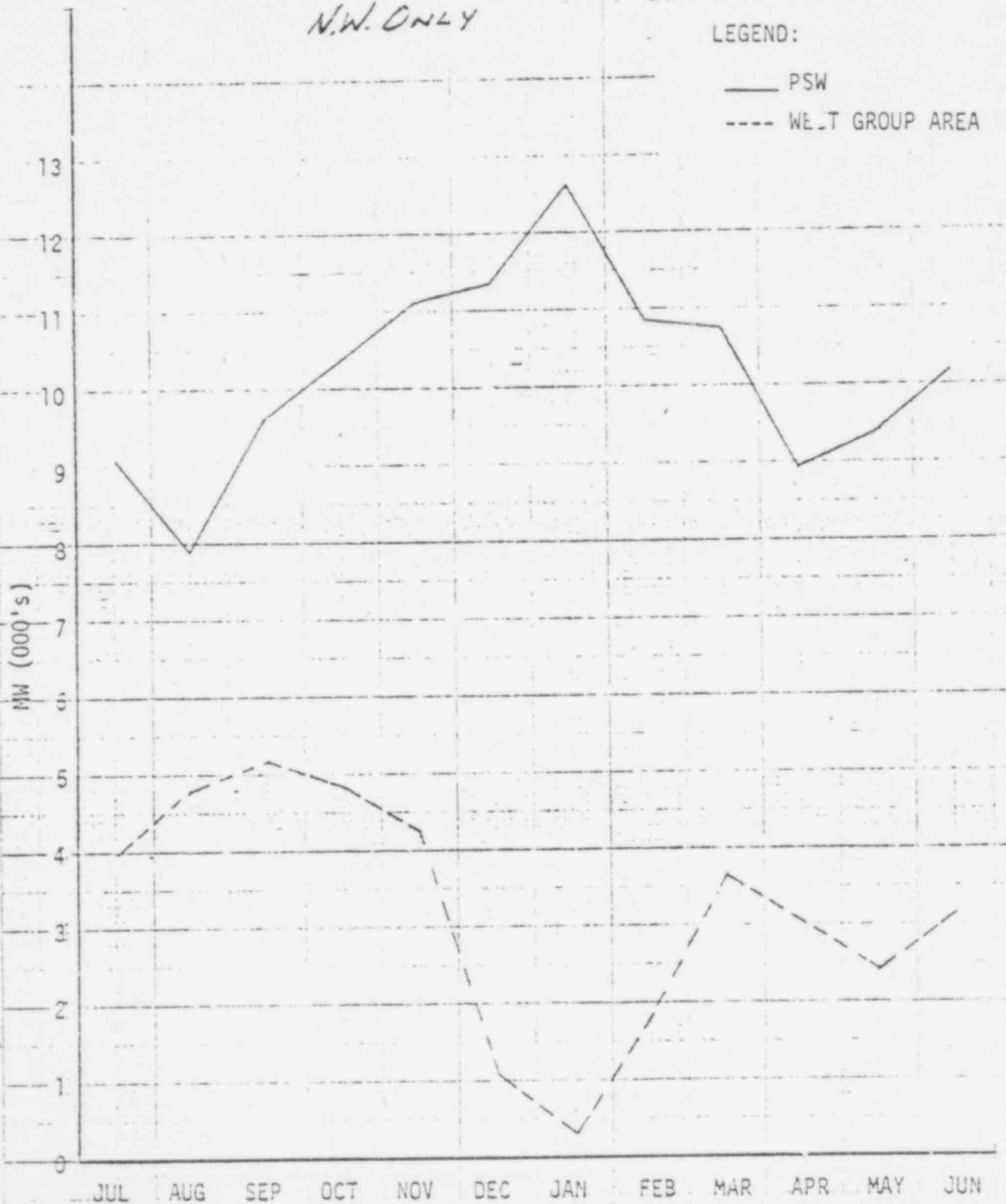
(PRESENT INTERTIE TRANSACTIONS ONLY)

*N.W. ONLY*

LEGEND:

— PSW

- - - WEST GROUP AREA

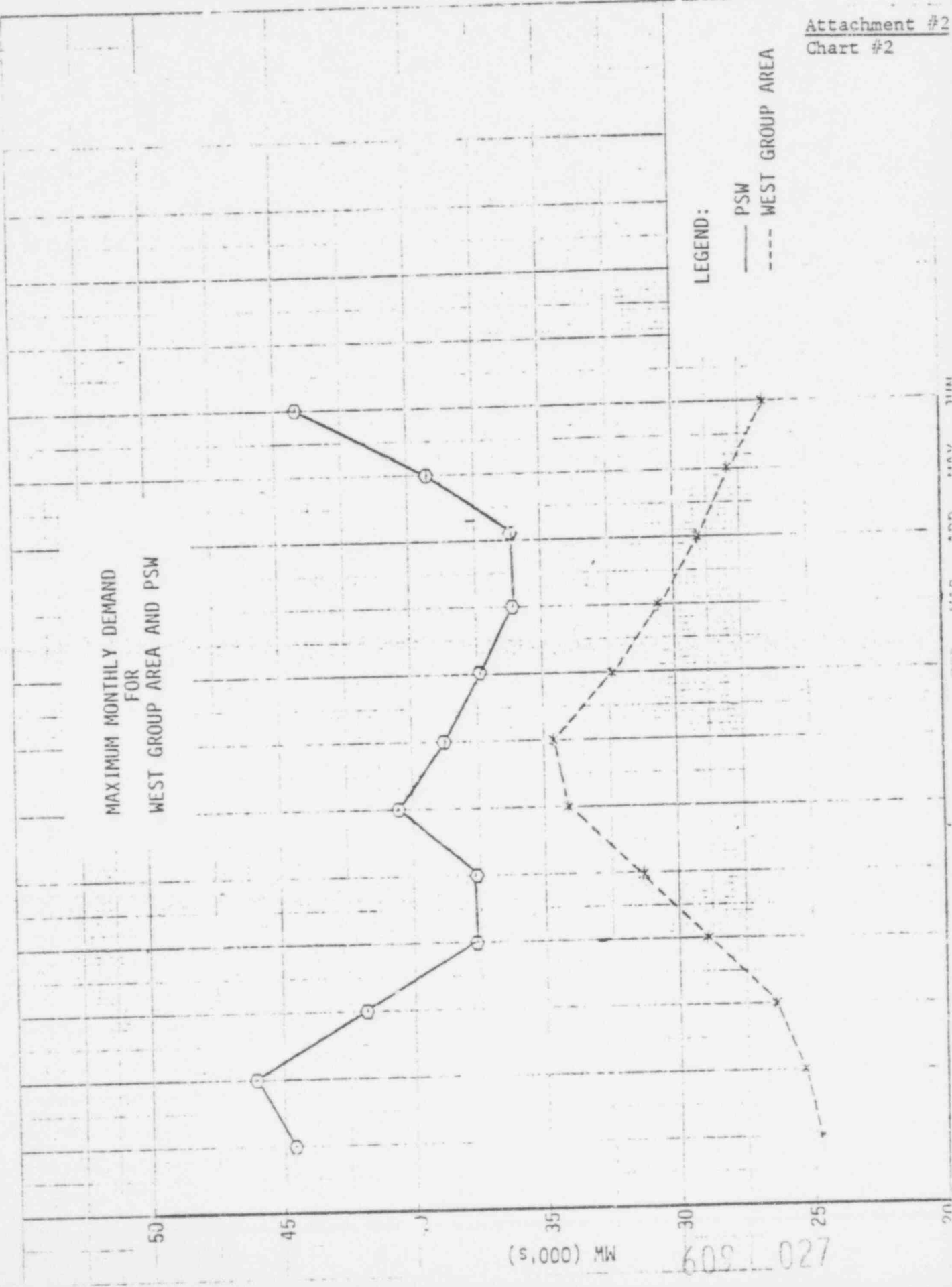


600026  
600024

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MAXIMUM MONTHLY DEMAND  
FOR  
WEST GROUP AREA AND PSW

LEGEND:  
— PSW  
- - - WEST GROUP AREA



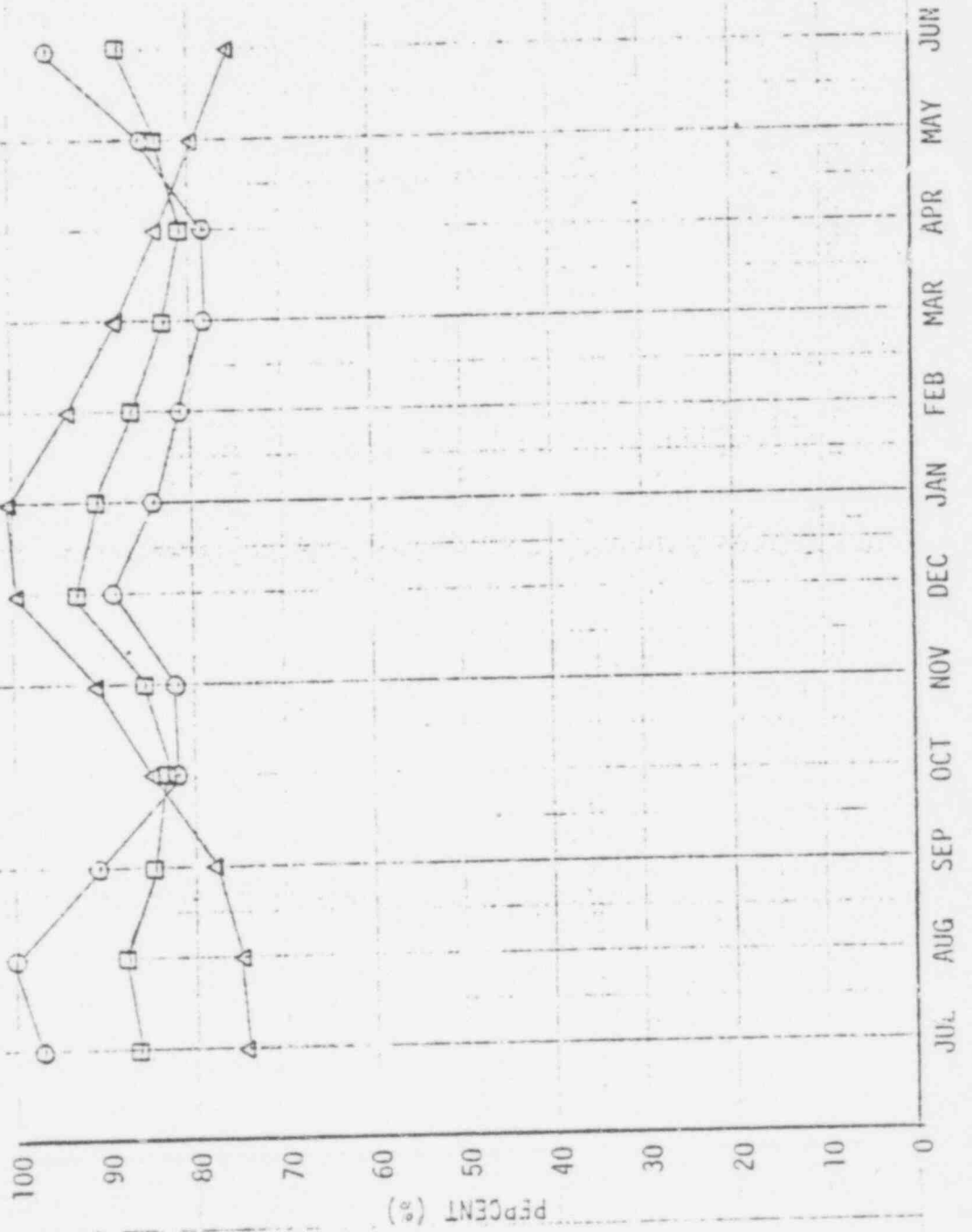
(s,000) MW

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LEGEND:  
 ○ PACIFIC SOUTHWEST  
 △ WEST GROUP AREA  
 □ TOTAL

1995  
 10  
 11  
 12  
 1  
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NORMALIZED MAXIMUM MONTHLY DEMAND



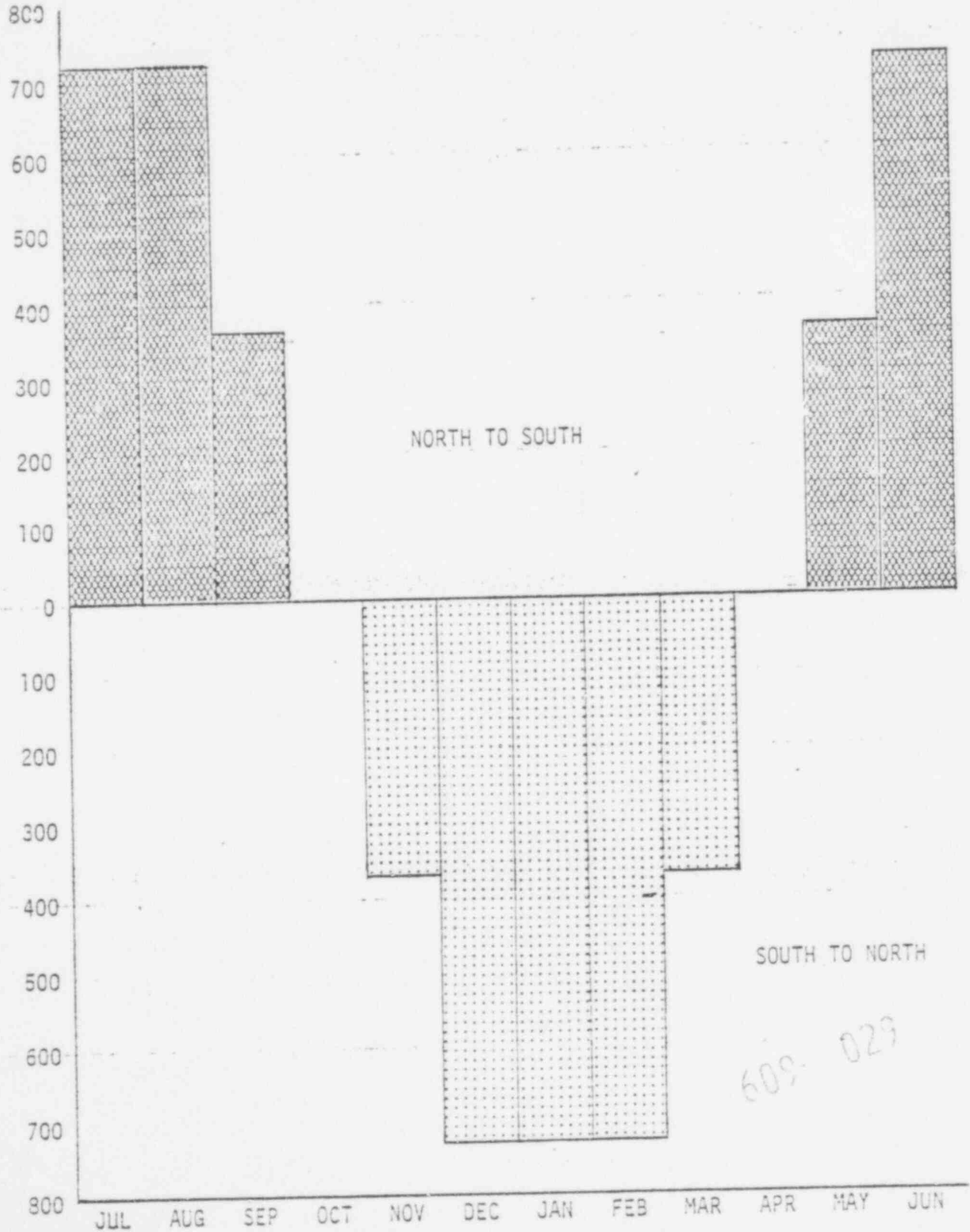
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TYPICAL  
THIRD A-C LINE LOADINGS

MW OF  
CAPACITY

DIVERSITY CAPACITY EXCHANGE



U P . 0 1 5 0 9 2 6

609-029

## PRELIMINARY--FOR DISCUSSION PURPOSES

Attachment #3

Principles for Exchange of Forced-Outage Reserve Capacity

1. Term - Up to life of the line (50 years) with termination upon 10-years' notice.
2. Capacity - (700) MW of line capacity shall be maintained free from firm transfers for the major purpose of forced-outage reserve pooling.
3. Costs and Losses - There will be a charge of \$\_\_\_\_\_/kW delivered for forced-outage reserve backup. Transmission costs and losses shall be assumed by the receiving party.
4. Energy Return - Energy delivered with capacity will be credited for return to the supplying party as energy without capacity at the supplying party's request, provided it is not required to meet firm loads on the delivering party's system, unless it is required to meet firm loads on the receiving party's system; or, purchased at the supplying party's discretion at a fixed price or at the incremental energy cost.
5. Forced-Outage Reserve - In the advent of a forced outage in excess of a party's own forced-outage reserves, such party may, after obtaining all available backup under contract from his own region, make a further call upon a participant in forced-outage reserves from another region for capacity equal to the balance of his forced outage. The participant shall provide up to his total forced-outage reserve contract requirement less the units he has out on forced outage and less any emergency capacity being supplied other systems, but not exceeding the requesting party's forced outage. If this amount is insufficient to cover the party's forced outage, then the party may call upon another participant for the balance.

This principle insures that a system, even if it is deficient, must provide its share of forced-outage backup. That is, if a system through poor planning or other reason ends up deficient, that system is still required to provide its share of forced-outage backup, if called upon, even if it means dropping firm load. Also, the responsibility of finding and scheduling with the participants to supply forced-outage backup belongs to the receiving party.

6. Scheduling - Parties must look to their own regions for forced-outage reserve backup under contract before requesting backup from the other region. Capacity, up to the limit contracted for or the intertie line capacity, must be made available within (10) minutes of request. From a practical standpoint, enforcing the "look to your own region first" concept would be very difficult in the timeframe involved.

7. Secondary Sales - Secondary sales, as long as they are fully interruptible, may be scheduled on the portion of the line reserved for forced-outage reserve pooling. This line capacity will be made available to participants for secondary sales ratably on the basis of participation in forced-outage reserves.

8. Obligation to Call on Forced-Outage Reserve - No party shall be obligated to call on the contracted for forced-outage reserves provided such party can obtain an alternative  at the time of forced outage.



## Southern California Edison Company

P O BOX 800  
 2244 WALNUT GROVE AVENUE  
 ROSEMEAD, CALIFORNIA 91770

January 31, 1977

Mr. H. J. Durocher, Chairman  
 Coordinating Committee--  
 Third 500 KV AC Line  
 United States Department of Interior  
 Bonneville Power Administration  
 P. O. Box 3621  
 Portland, Oregon 97208

Dear Mr. Durocher:

Enclosed is the final report of the Pacific Intertie Upgrading Task Force. This report was slated for release in the summer of 1976, but the Task Force temporarily postponed its evaluation pending the outcome of two Intertie-related investigations. First, PG&E performed a study which demonstrated that with the use of additional remedial action, the rating of the AC Intertie could be increased to 2500 MW. Secondly, optimism regarding the possible justification of a third 500 KV AC line reached significant proportions.

Subsequently, the Intertie was operated with the 2500 MW rating and the study activity in regard to the third 500 KV line resulted in a better estimate of the rating of the three line system and its cost. With this additional information, the Pacific Intertie Upgrading Task Force proceeded to complete its analysis of the methods and costs of upgrading the Intertie.

The enclosed report summarizes the cost and amount of increase in power transfer capability resulting from various methods of upgrading the Intertie from the 2500 MW level.

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With the exception of the third 500 KV AC line data, the results were obtained without the benefit of detailed studies and this give an approximate comparison of the different proposals. It is expected that the more economically promising methods would be studied in greater detail after evaluation with respect to the anticipated benefits of each method.

Sincerely,



C. E. Postel, Chairman  
Pacific Intertie  
Upgrading Task Force

Enclosure

cc: Members, Pacific Intertie  
Upgrading Task Force  
W. C. Blood

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PACIFIC INTERTIE UPRATING TASK FORCE  
FINAL REPORT  
January 25, 1977

INTRODUCT N

In 1975 a group of Western utilities agreed that a review of possible methods of upgrading the Pacific Intertie was in order. In September of that year an originating Committee (later named Coordinating Committee--Third 500 kV AC Line), comprising representatives of utilities with a direct interest in the proposed upgrading study, formed a task force to determine in approximate terms certain benefits and costs that would result from various levels of Intertie upgrading. This task force in turn formed the Pacific Intertie Upgrading Task Force and delegated to this new group that part of their assignment dealing with the cost of various levels and methods of upgrading so that they might concentrate their efforts on developing the corresponding benefits attributable to reserve sharing.

The Pacific Intertie Upgrading Task Force was to include in their analysis both the AC and DC intertie segments and the capacity increases were to be based on the system configuration anticipated in the early 1980 time frame.

It is intended that the results of these two committees be analyzed by the originating committee in regard to the overall cost/benefits of the various plans. The end result would be a recommendation of upgrading techniques that, from the preliminary analyses, appear economically justifiable and practical.

The Pacific Intertie Upgrading Task Force comprises representatives from Bonneville Power Administration, Los Angeles Department of Water and Power, Pacific Gas and Electric Company, San Diego Gas and Electric Company and the Southern California Edison Company.

RESULTS

In general, some of the possible methods of upgrading the Intertie are to devise new operating procedures, improve the reinsertion performance of the capacitors, improve the current carrying capability of the AC network components, increase the operating voltage of the DC line, increase the current capability of the valve groups in the DC terminals, add another 500 kV line or convert the two three-phase AC lines to three bipolar DC lines.

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To assist in visualizing these alternatives, Figure 1 is included which shows the geographical location of the Pacific Intertie lines and substations as well as the line mileages between intertie buses.

a) Use of Remedial Action

At the initiation of this study the AC portion of the Pacific Intertie was rated at 2100 MW at Malin and the DC portion at 1440 MW at Celilo for north to south transfers. The AC stability limit for heavy load conditions has now been increased to a maximum of 2500 MW at Malin with the use of special procedures incorporating various remedial actions. The procedures and remedial actions can be summarized in the following manner.

In The Northwest:

1. Drop 600 MW at Chief Joseph for loss of any line between John Day and Round Mountain.
2. Eliminate switching of the additional 25% Northwest Compensation for faults between Grizzly and Round Mountain.

In California:

1. Reset the relays in the GE capacitors at Round Mountain on the lines to Malin so that the capacitors will not attempt to reinsert unless the current is below 1900 amperes. They were set for 3000 amperes. (This will delay reinsertion of these capacitors following a fault in the parallel line. If these capacitors do not initially try to reinsert, the post-insertion current is significantly lower, and the Westinghouse capacitors at the Malin end of the line should reinsert reliably. Reinsertion of about one-third of the capacitors is required.)
2. Use jumpers to bypass one-half of the capacitor banks at the Table Mountain end of the Round Mountain-Table Mountain line. (This should reduce post-insertion current to below 2700 amperes in the remaining line for faults between Round Mountain and Table Mountain.)
3. Send a signal to the Northwest to insert the Chief Joe braking resistor for multiphase faults between Round Mountain and Table Mountain.

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Although the Pacific Intertie rating has not officially been changed to 2500 MW, the above procedure to achieve the 2500 MW limit has been implemented and will likely remain in effect until future system changes result in a change in the rating.

b) Capacitor Upgrade

The first level of facility upgrade considered consists of increasing the capacitor ratings to the rating of the conductor in the AC lines, i.e., the overload capability of the capacitors would be compatible with the short-time emergency rating of the conductor. This results in a 2700 MW rating on the AC lines north of Table Mountain. The capital cost in 1976 dollars for upgrading the series capacitors from John Day to Tesla is estimated to be \$67 million. This assumes a 70 percent compensation level. If six percent losses are assumed, the incremental cost of the delivered power at Tesla is calculated to be \$358/kW using the 2500 MW rating (see Table I). It is important to note that the relatively large cost per kilowatt figure developed using the 2500 MW base does not reflect the significant improvement in reliability realized by upgrading the capacitors. The 2500 MW rating requires a number of additional remedial actions not required at the 2100 MW level. These were outlined in Part (A) of this section. The capacitor upgrade to 2700 MW eliminates most of the remedial actions.

c) Addition of a Third AC Line

To increase the AC Intertie rating a significant amount above the 2700 MW level would require a third AC line. The addition of a third line would increase the Intertie rating to 4500 MW. The 1976 capital cost of a third line and associated terminal equipment from John Day to Tesla is \$301 million. This cost figure assumes a 70 percent series compensation level and includes 585 miles of 500 kV construction with intermediate terminals at Grizzly, Malin, Round Mountain and Vaca-Dixon. The incremental cost of the delivered power at Tesla is \$160/kW for the 2500 MW base rating (See Table I). These costs assume a 4500 MW intertie rating and six percent transmission losses.

d) DC Line Upgrades

An alternative to increasing the capacity of the AC portion of the intertie is to upgrade the DC line from its present level of 1440 MW at the sending end when operating at  $\pm 400$  kV. Rough estimates have been made for increasing the DC capacity by increasing the operating voltage or by increasing the current rating.

### DC Voltage Increase

If the operating voltage is increased from + 400 kV to + 513 kV, the sending end capacity is increased from 1440 MW to 1920 MW, a 480 MW improvement. The voltage increase would require a capital expenditure of \$64 million (1976 dollars) and results in an incremental cost of \$137/kW for power delivered at Sylmar. The cost figure for increasing the voltage assumes that the existing conductor would not have to be replaced. Before this plan receives further consideration, an investigation should be made to determine the maximum voltage possible for upgrading without substantial modifications to the existing line equipment.

### DC Current Increases

The capacity of existing conductors will permit increasing the existing current rating without significant sag related tower modifications. Replacement of all existing valves with thyristor or IMP valves and replacement of converter transformers with a higher current rating would be required.

Three levels of current increases were examined. The current increases considered in this evaluation upgraded the DC line 360, 565 and 760 MW respectively. The 1976 capital costs for these upgrades are \$103, \$145 and \$157 million respectively. Corresponding incremental costs of power delivered at Sylmar are \$366, \$310 and \$274 per kW (See Table 1). The 565 MW increase corresponds to the same 467 MW of delivered power as in the case of the voltage upgrade but note that the incremental cost for that case was only \$137/kW.

The above costs do not include several factors, the most important being the downtime costs incurred during the installation and modification of facilities. The downtime is expected to be more significant for the current increase modifications than the voltage increase modifications.

The voltage increase concept appears to be less expensive and easier to implement than the current increase concept. Of the two, it is seen that it would be more beneficial to investigate the voltage increase opportunities in greater depth in the anticipated benefits of upgrading the DC line warrant further study.

#### e) Conversion of AC Lines to DC

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Another alternative for increasing the Intertie capability is the conversion of the two 500 kV AC Intertie lines to three bipolar DC lines.

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A large increase in capacity can be achieved by this conversion. In addition, an asynchronous tie would have loop flow benefits and with proper control might assist in system stability.

John Day was selected as the northern terminus of the DC lines since it is near major generating sources and Tesla was selected as the southern terminus since it is near the load center in northern California.

Three levels of upgrade were considered for this AC to DC conversion. The total three DC line system was assumed to be rated 4000, 5000 or 7500 MW corresponding to the three levels of upgrades. The 1976 capital costs for these various levels of upgrades are given in Table I as \$400, \$488, and \$663 million respectively. The incremental costs of the delivered power for these same three levels were calculated as \$291, \$217 and \$153 per kW, respectively for the 2500 MW base rating.

It was stated previously that the conversion would be implemented between John Day and Tesla. Whether DC lines with these terminals would be feasible is uncertain. The intermediate stations between John Day and Tesla on the present AC system have significant blocks of power transferred to or from the 500 kV Intertie system. In some areas, substantial changes to the existing 230 kV network would have to be made if the 500 kV AC lines were converted to DC. Alternatively, it would be necessary to establish large AC/DC conversion stations at these locations. In either case, the conversion costs could be substantial and thus the actual cost of this conversion would be higher than indicated here. On the other hand, there is some cost associated with the control or accommodation of loop flow. The elimination of loop flow as a result of the AC to DC conversion should yield a cost savings which could be deducted from the net cost of the plan. Any credit for loop flow control would not be expected to alter the comparative economic position of the conversion plan.

#### SUMMARY

The various methods and levels of upgrades and their respective costs are summarized in Table I.

From Table I it is seen that, in regard to upgrading the DC line, the methods which increase the current carrying capacity are the most expensive when compared with other alternatives. It should be noted that some loss adjustment should be made to the DC upgrade cost evaluation to account for the fact that the power is delivered further south at Sylmar instead of Tesla. The conversion of the two AC lines

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to three DC bipolar lines is also economically unjustifiable unless the 7500 MW capacity alternative is realistically required.

Except for the cost of capacitor upgrades from the 2500 MW rating, the remaining plans are within the same range of cost per kilowatt of incremental increase but differ in the amount of capacity increase. Therefore, if the capacity increase that can be justified is within the 400-2000 MW range, the DC voltage increase and third line alternative should be given detailed consideration.

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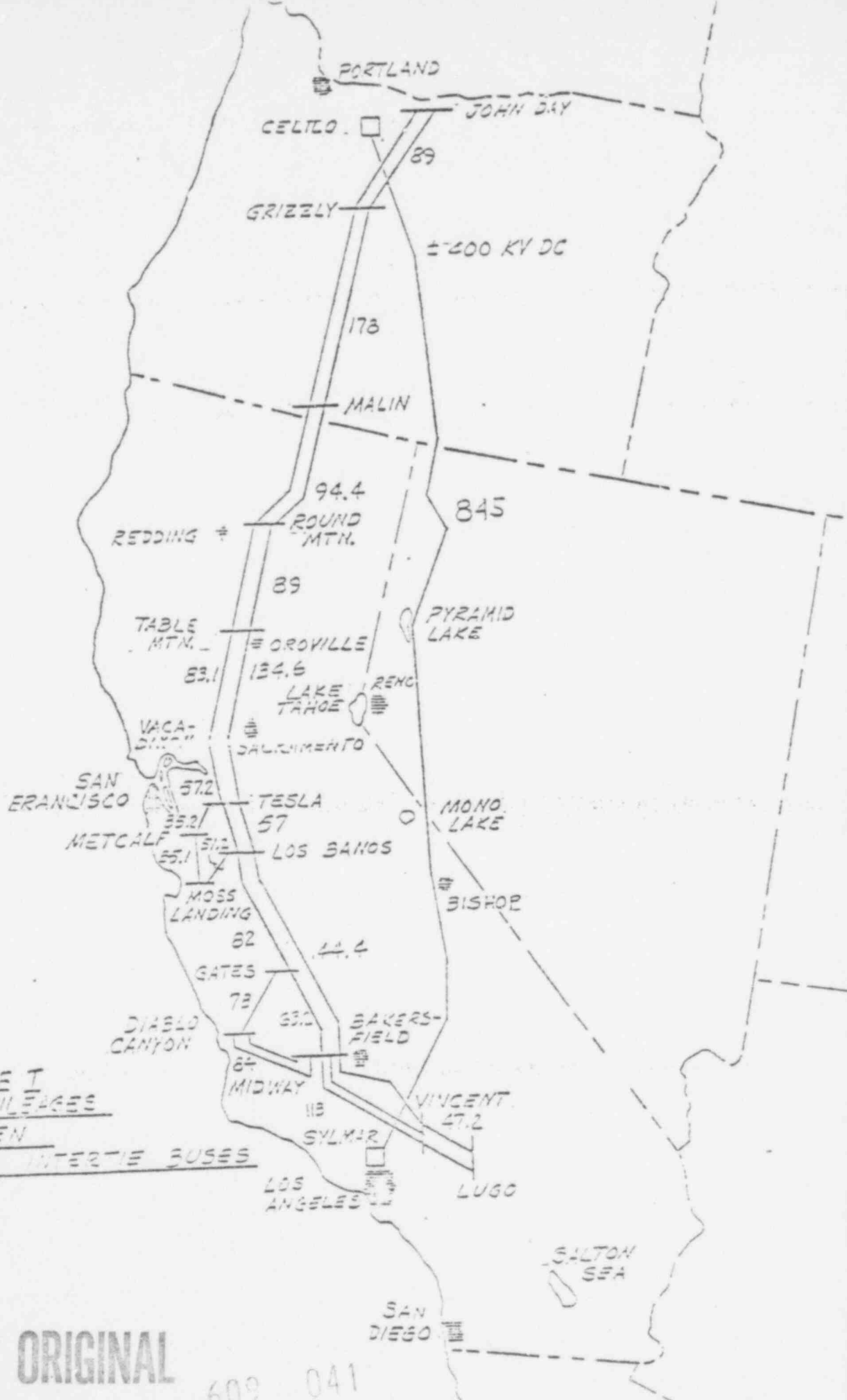


FIGURE I  
LINE MILEAGES  
BETWEEN  
PACIFIC INTERTIE BUSES

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TABLE I  
SUMMARY OF METHODS OF UPGRADING INERTIE

| Method Of Upgrading            | Total AC Or DC Intertie Capacity<br>MW | Amount Of Upgrading<br>2500 Base<br>MW | Additional Delivered Power<br>2500 Base<br>MW | Cost Of Upgrading<br>\$ x 10 <sup>6</sup> | 1976 Capital Cost Per kW G, Additional Power Delivered<br>2500 Base<br>MW | Delivery Point |
|--------------------------------|--|--|---|---|---|----------------|
| Capacitor                      | 2700                                   | 200                                    | 188   | 67  | 358   | TESLA          |
| Third AC Line                  | 4500                                   | 2000                                   | 1880  | 301                                       | 160   | TESLA          |
| DC Voltage Increase            | 1920                                   | 480                                    | 467   | 64  | 137   | SYLMAR         |
| DC Current Increase #1         | 1800                                   | 360                                    | 282   | 103                                       | 366   | SYLMAR         |
| DC Current Increase #2         | 2005                                   | 565                                    | 467   | 145                                       | 310   | SYLMAR         |
| DC Current Increase #3         | 2200                                   | 760                                    | 574   | 157                                       | 274   | SYLMAR         |
| Conversion Of AC to DC Plan #1 | 4000                                   | 1500                                   | 1375  | 400                                       | 291   | TESLA          |
| Conversion Of AC to DC Plan #2 | 5000                                   | 2500                                   | 2250  | 488                                       | 217   | TESLA          |
| Conversion Of AC to DC Plan #3 | 7500                                   | 5000                                   | 4325  | 663                                       | 153   | TESLA          |

602

042



August 3, 1976

Mr. Manual Lopez, Jr.  
Regional Director  
U. S. Department of the Interior  
Bureau of Reclamation  
Lower Colorado Regional Office  
P. O. Box 427  
Boulder City, Nevada 89005

Dear Mr. Lopez:

The purpose of this letter is to advise that Southern California Edison Company (Edison) has an interest in utilizing the proposed Celilo/Head/Phoenix DC Intertie in meeting its future power and transmission requirements. Edison representatives have participated in meetings with other entities in the Northwest and Southwest regarding arrangements for the purchase and/or exchange of resources and the development of principles for the use of such Intertie facilities. Based on the developments to date and our estimate of future requirements, it is anticipated that Edison could utilize 400 MW of transmission capacity commencing in January 1984.

We understand that, based on the January 1984 in-service date, it is necessary for the Bureau to receive this statement of interest in order to proceed with its budget process. It is also understood that final contracts are currently scheduled to be completed by December 1977 and that it will be necessary to provide the Bureau with a letter of commitment by January 1978. Such a letter will be to provide a conditional commitment for power and transmission arrangements based upon studies performed and a set of mutually agreed upon principles between the parties as of that date.

Yours very truly,

Original Signed  
William R. Gould  
Executive Vice President

AB:dpc

609 043

bcc: Howard P. Allen  
J. T. Head, Jr.  
David J. Fogarty  
J. H. Drake  
A. M. Nedry

bbcc: G. A. Davis  
D. N. Barry  
M. D. Whyte  
R. L. Mitchell  
R. M. Edgell  
C. E. Crabtree  
A. Blanco

## PACIFIC NORTHWEST-PACIFIC SOUTHWEST INTERTIE

Expressions of Interest

| <u>Entity</u>                                   | <u>Date Received</u> | <u>Transmission Capacity Requested, MW</u> |
|---|----------------------|--|
| Arizona Public Service Company                  | 5/12/76              | 200(84) - 500(90)                          |
| Wellton-Mohawk Irrigation and Drainage District | 6/25/76              | 2(84) - 5(96) <u>1/</u>                    |
| Roosevelt Water Conservation District           | 7/19/76              | 6(84) - 9(87)                              |
| Electrical District No. 4                       | 7/19/76              | 7(84) - 11(87)                             |
| City of Anaheim, California                     | 7/21/76              | 100(84) - 300(90)                          |
| Roosevelt Irrigation District                   | 7/22/76              | 4(84) - 6(87)                              |
| Salt River Project                              | 7/23/76              | 250(85) - 500(89)                          |
| Maricopa Water District No. 1                   | 7/23/76              | 8(84) - 10(87)                             |
| Electrical District No. 1                       | 7/26/76              | 10(84)                                     |
| Department of the Air Force Williams AF Base    | 7/26/76              | - <u>3/</u>                                |
| Nevada Power Company                            | 7/27/76              | 300(84) - 500(99)                          |
| City of Riverside, California                   | 7/28/76              | 25(84) - 50(88)                            |
| Electrical District No. 2                       | 7/29/76              | - <u>3/</u>                                |
| Arizona Electric Power Cooperative, Inc.        | 7/29/76              | 30(84) - 60(90)                            |
| Energy Research and Development Admin.          | 7/29/76              | - <u>3/</u>                                |
| Electrical District No. 3                       | 7/30/76              | 30(84) -                                   |

609 045

Expressions of Interest, continued

| <u>Entity</u>  | <u>Date Received</u> | <u>Transmission Capacity Requested, MW</u> |                   |
|--|----------------------|--|-------------------|
| Anza Electric Cooperative, Inc.                        | 7/30/76              | 10(84) -                                   | 15(96)            |
| Buckeye Irrigation Co.                                 | 7/30/76              | 2(84) -                                    | 4(87)             |
| Department of Water and Power, The City of Los Angeles | 8/2/76               | 300  | <u>2/</u>         |
| Tucson Gas & Electric Company                          | 8/2/76               | 100(84)                                    |                   |
| Electrical District No. 6                              | 8/2/76               | 18(84) -                                   | 24(87)            |
| Arizona Power Pooling Association:                     | 8/2/76               | 100(84) -                                  | 200(90)           |
| (City of Mesa  | 35 - 70)             |  |                   |
| (ED-2  | 25 - 50)             |  |                   |
| (AEPCo   | 30 - 60)             |  |                   |
| (Other   | 10 - 20)             |  |                   |
| U.S. Army Yuma Proving Ground                          | 8/2/76               | 3 -  | 5 <u>2/</u>       |
| Division of Colorado River Resources                   | 8/2/76               |  | - <u>3/</u>       |
| City of Pasadena, California                           | 8/4/76               | 70   |                   |
| Intercompany Pool                                      | 8/5/76               |  | - <u>3/</u>       |
| Southern California Edison Company                     | 8/5/76               | <u>400(84)</u>                             | <u>          </u> |
| Total  |                      | 1,695(84)                                  | 3,049(99)         |

1/ Could go somewhat higher if details of operation were more clearly defined.

2/ No date given. 1984 assumed for total.

3/ No amount specified.

RESOURCES PLANNING  
ADMINISTRATION

Department of Energy

Bonneville Power Administration  
P.O. Box 3621  
Portland, Oregon 97208

JUL 24 1978

RECEIVED

July 21, 1978

In reply refer to: P

To Interested Parties - Proposed Celilo-Mead-Phoenix D-C Intertie

Gentlemen:

The attached copy of a memorandum from Sterling Munro and Robert L. McPhail to Assistant Secretary George S. McIsaac, Department of Energy, summarizes conclusions reached at our meeting on July 18 regarding the proposed Celilo-Mead-Phoenix d-c line. Both Pacific Northwest and Pacific Southwest representatives agreed that additional studies are needed and the earliest the line could be completed is the late 1980s.

A number of additional study needs were identified at the April 25, 1978, meeting in Las Vegas:

For the Pacific Southwest--

1. Evaluate PSW maintenance schedules. Can PSW maintenance be done outside of the summer period and, if so, how long? Quantify the benefits of uniforming maintenance schedules.
2. Evaluate the amount of new plant capacity that could be deferred with 6-hour and 10-hour capacity available from the PNW at the 1985, 1990, and 1995 levels of development for both Arizona-Nevada and Arizona-Nevada-Southern California.
3. Determine value of PSW capacity deferrals.
4. Verify the 162-MW average annual energy delivered offpeak to the PNW in 1 year out of 5. Can the amount be greater?

For the Pacific Northwest--

1. If increased fall drafts of reservoirs are acceptable, identify and quantify the dollar benefits associated with not drawing them down.
2. Study various combinations of 6 to 10 hours peaking.

609 047

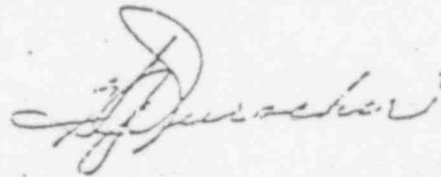
POOR ORIGINAL

Letter to Interested Parties, Subject: Proposed Celilo-Mead-Phoenix  
D-C Intertie

3. Quantify the benefits associated with uniforming thermal maintenance schedules.
4. Reevaluate the cost of PNW capacity.
5. Determine if the interest rates used in the study for WAPA and BPA are accurate considering the shift to the Department of Energy.

Desirability of pursuing these studies was confirmed at the July 18 meeting. However, the study years should be 1988, 1993, and 1998. Cliff Watkins, Chief of our Branch of Power Resources, will coordinate Pacific Northwest study efforts and will contact Pacific Southwest task force representatives from time-to-time as studies progress.

An attendance list for the July 18 meeting is attached, together with a copy of our mailing list of interested entities.



3 Enclosures:  
Memo dtd. 7/18/78  
Attendance List  
Mailing List

FOUR ORIGINAL

609 048



Department of Energy  
 Bonneville Power Administration  
 P.O. Box 3621  
 Portland, Oregon 97208

OFFICE OF THE ADMINISTRATOR

JUL 18 1978

Energy ref id. BA/BPA - P

MEMORANDUM FOR GEORGE S. McISAAC  
 ASSISTANT SECRETARY  
 RESOURCE APPLICATIONS

FROM: STERLING MUNRO  
 ADMINISTRATOR  
 BONNEVILLE POWER ADMINISTRATION

*Sterling Munro*

FOR ROBERT L. McPHAIL  
 ADMINISTRATOR  
 WESTERN AREA POWER ADMINISTRATION

*Thomas S. Weaver*

SUBJECT: PROPOSED CELILO-MEAD-PHOENIX D-C LINE

Representatives of Bonneville Power Administration, the Western Area Power Administration, and private and public utilities in both the Pacific Southwest and Pacific Northwest areas met in Portland, Oregon, on July 18, 1978, to discuss the proposed Celilo-Mead-Phoenix d-c intertie. The proposed intertie, a 1000-kilovolt direct-current transmission line would transmit power more than a thousand miles to permit seasonal exchanges of capacity and energy. The Southwest would use Northwest resources during the summer months and, conversely, during the winter months power generated by Southwest entities would be sent back along the same d-c line to the Northwest to help meet their peak demands. Such exchanges would reduce the need for installing peaking plants in both regions.

Significant changes in the resource and load pictures in both the Pacific Northwest and Pacific Southwest areas of the country indicated that additional studies would be required in order to determine if there is a matching of one region's resources to the other region's loads. Additional studies on loads and resources, which are estimated to take approximately 12 months, will mean an in-service date of the intertie not earlier than the late 1980's. Representatives of utilities in each region will reanalyze their needs and capabilities. Another joint meeting is tentatively planned for early in 1979 in order to determine future course of action.

609 049

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Meeting on Celilo-Mead/Phoenix D-C Intertie  
 Bonneville Power Administration Building  
 July 18, 9:00 a.m., Room 464

| NAME                  | AGENCY                      | LOCATION      |
|-----------------------|-----------------------------|---------------|
| Lynman Harris         | Alcoa                       | Vancouver, Vt |
| Bob Krohn             | Corps of Engineers          | Portland      |
| Fred Schaufelberger   | BPA                         | Portland      |
| Howard Schoffen       | Chelan Co. P.U.D.           | Wenatchee, W  |
| Bill Murphy           | Arizona Public Service      | Phoenix       |
| Byron L. Miller       | Nevada Power Co             | Las Vegas,    |
| Leroy Mitchell        | SALT RIVER PROJECT          | Phoenix,      |
| John F. Sullivan      | Salt River Project          | Phoenix.      |
| Howard Farrington     | BPA                         | THE Dal       |
| Peter O. Hengstenberg | Corps of Engrs              | Port          |
| Pete Hicks            | BPA                         | Port          |
| Jeff Watkins          | "                           | "             |
| Russ Mitchell         | So. Cal. Edison             | Los A         |
| Ralph F. Deesen       | Pacific Power & Light Co    | A             |
| Nicholas Dodge        | Corps of Engrs; NPD         |               |
| Robert A. Olson       | WESTERN AREA POWER ADMIN.   |               |
| Thomas W. Weaver      | Western Area Power Admin.   |               |
| John G. Ross          | L.A. DEPT. of Water & Power |               |
| Hal Mozer             | CH2M HILL for Public Pow    |               |
| Geo Durocher          | BPA                         |               |
| Charles Bap           | Ariz Public Servi           |               |

609 050

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Chief, Engineering Division  
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Phoenix, AZ 85001

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Arizona Power Authority  
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Phoenix, AZ 85005

Mr. M. A. Curtis  
Arizona Power Pooling Association  
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Coolidge, AZ 85228

Mr. A. J. Pfister  
General Manager  
Salt River Project  
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Mr. Einar Greve  
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Mr. R. D. Hulse  
Vice President Resource Planning  
Arizona Public Service Company  
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Anaheim, CA 92803

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Administrator  
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609 051

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Chief Electrical Engineer  
& Assistant Manager  
Los Angeles Dept. of Water & Power  
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Los Angeles, CA 90051

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Vice President  
Southern California Edison Company  
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Rosemead, CA 91770

Mr. R. L. Mitchell  
Manager, Power Contracts  
Southern California Edison Company  
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Rosemead, CA 91770

Mr. James M. Henderson  
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San Diego, CA 92112

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Puget Sound Power & Light Company  
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Western Area Power Administration  
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Vice President - Power Supply  
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Spokane, WA 99220

Mr. A. J. Benedetti  
Director  
Tacoma City Light  
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Tacoma, WA 98411

Mr. G. F. Vickery  
Superintendent  
Seattle City Light  
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Seattle, WA 98104

Mr. Lyman Harris  
NW Area Power Manager  
Aluminum Company of America  
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Vancouver, WA

Mr. Norman C. Jacox  
General Manager  
Northwest Public Power Association  
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Vancouver, WA 98660

Mr. Ken Billington  
Executive Director  
Washington Public Util. Districts Assoc.  
1601 Tower Building  
Seattle, WA 98101

Mr. Karl A. Johnson  
City Manager  
City of Pasadena  
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Pasadena, CA 91109

Mr. E. B. Stolle  
State of Nevada  
Div. of Colorado Resources  
P.O. Box 19090  
Las Vegas, NV 89119

609 052  
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NOV 21 1978

POWER CONTRACTS

Department of Energy

Bonneville Power Administration  
 P.O. Box 3621  
 Portland, Oregon 97208

In reply refer to: 20

November 17, 1978

To Pacific Northwest-Pacific Southwest Intertie Parties

Gentlemen:

This is to confirm understandings reached at the meeting on November 16 at which Bonneville Power Administration (BPA) presented its preliminary studies indicating a benefits/cost ratio of between 2.1 and 2.6 to 1 for upgrading the existing direct-current line by increasing its voltage from  $\pm 400$ -kV to  $\pm 500$ -kV. The group agreed upon the following schedule for followup activities:

1. By November 30, 1978, interested utilities will designate representatives to: (a) an Engineering Technical Task Force, and (b) a Power Supply Planning Task Force, to review and finalize the BPA preliminary feasibility study. For the former, designees will be phoned to Fred Schaufelberger, BPA's Chief of System Engineering, telephone number (503) 234-3361, extension 4411, and for the latter to Cliff Watkins, BPA's Chief of Power Resources, ext. 4451.

The Engineering Technical Task Force will consider the relationships between possible increased current rating and voltage rating, transmission loss savings projected by BPA, installation costs and schedules, integrated system performance, and other matters. The Power Supply Planning Task Force will evaluate benefits from increased surplus sales and consider other future possible d-c intertie transactions.

2. The Task Forces will endeavor to jointly conclude a suitable report for submission to respective managements, along with staff recommendations, no later than January 1, 1979.
3. The parties will seek to obtain management concurrence of involved utilities by the end of February 1979 to proceed with the upgrading of the d-c terminal voltage, or to delay further consideration of this project. BPA believes construction of its part of the project could be completed as early as mid-1983 although it is currently in BPA's preliminary 1980 budget for completion in May 1984.

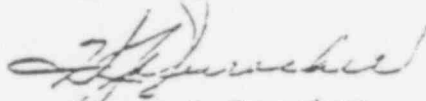
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609 053

Letter to Pacific Northwest Electric and Southwest Electric Joint Co.  
Subject: November 14 Meeting of Chairman's Committee, D.C. Line

We appreciate your willingness to proceed rapidly in conducting the necessary studies and decisions. This is important to EPA's final budget presentation for fiscal year 1980 and would achieve the earliest practical in-service date for the project in further studies continue to be mutually beneficial.

Sincerely,



Hector J. Durocher  
Assistant Administrator  
for Power Management

Addressees:  
See attached list

POOR ORIGINAL

Letter to Pacific Northwest-Pacific Southwest Intertie Parties;  
 Subject: November 16 Meeting on Upgrading Existing D-C Line

## Addressees:

Los Angeles Department of Water & Power

James L. Mulloy  
 Jack A. Craig  
 Kunio Yamamoto  
 David Mahoney  
 John Novobilski  
 Vern Pruitt  
 Norman Nichols  
 K. W. Noyes  
 Gary Langewisch  
 John G. Rogacs

Pacific Gas and Electric Company

Bart W. Shackelford  
 H. R. Perry  
 Jess Heller  
 William Tom  
 Cliff Young  
 W. C. Lester  
 E. H. Peterson

San Diego Gas & Electric Company

Jack E. Thomas  
 J. C. Holcombe  
 Alan E. Ralston

Southern California Edison Company

A. Arenal  
 Russ L. Mitchell  
 Robert Mayall  
 Curt DuBois  
 S. A. Moody  
 Gary Miller

City of Anaheim

Gordon Hoyt  
 George H. Edwards

City of Burbank

Ronald O. Snyder  
 Wayne Schafer  
 William L. Boyd  
 Ron Stassi

City of Riverside

Everett C. Ross

City of Glendale

William H. Fell  
 Richard L. Young  
 Lai Quan

City of Pasadena

Karl A. Johnson  
 Jerry C. Lohr  
 Alex Koutras

Northern Calif. Power Agency

Norman P. Ingraham  
 Barry Flynn

Calif. Dept. of Water Resources

Ronald B. Robie  
 Lloyd Harvego

Western Area Power Administration

Robert L. McPhail, Golden, Co.  
 Gordon R. Estes, Sacramento, Ca.

Sacramento Municipal Util. District

Charles Hair

Pacific Power & Light Company

Donald E. Martin, Portland

R. W. Beck & Associates

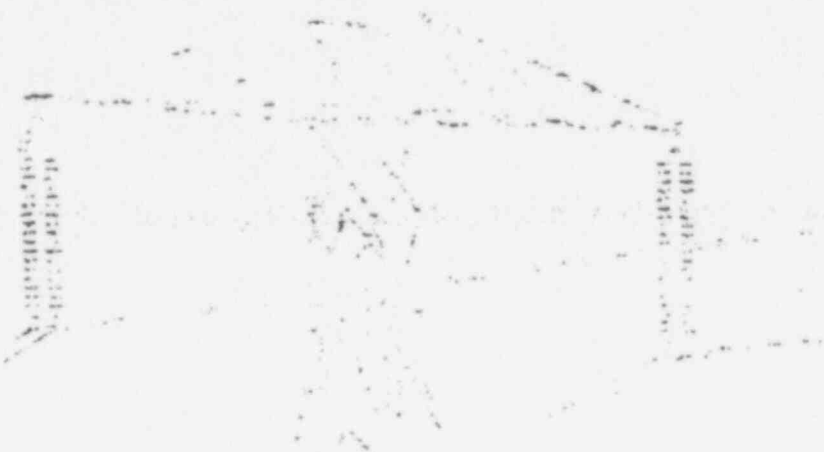
Norman Hill, Seattle

## cc:

Other Interested Parties

Harold M. Mozer, CH2M Hill  
 Bellevue, Washington  
 E. F. Timme, Intercompany Pool  
 Spokane, Washington  
 David E. Piper, Public Power  
 Council, Vancouver, Washington

609 055



REPORT ON FEASIBILITY OF UPGRADING  
THE PACIFIC D-C INTERTIE TO  $\pm$  500 KV



**POOR ORIGINAL**

January 26, 1979

609 056

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## I. CONCLUSIONS

1. The Pacific D-C Intertie can be upgraded by raising the transmission voltage from  $\pm 400$  kV to  $\pm 500$  kV with acceptable impact on operation.
2. Voltage upgrading would improve transmission efficiency and provide additional transmission capacity.
3. Voltage upgrading of the Intertie would be a significant energy conservation measure.
4. The total estimated investment costs including interest during construction for voltage upgrading is \$76.24 million. Estimated total annual cost is \$8.34 million.
5. Voltage upgrading is estimated to yield average annual benefits worth \$15.89 million from reduced loss and increased use of surplus Northwest energy in the Southwest which results in a benefit/cost ratio of 1.8.
6. Continued use of the D-C Intertie for capacity/energy exchanges is estimated to yield additional benefits from voltage upgrading at least until present contracts expire in 1987. Capacity sales after that time could raise the estimated economic benefit/cost ratio.
7. Potential changes in the operating current level of the existing Intertie do not alter the feasibility or level of benefits of voltage upgrading.
8. Performance of the interconnected system would not be degraded as a result of voltage upgrading.
9. From the time of project approval, it is expected to take about 5 years for project implementation. If the project is approved without delay, it could be completed by May 1984.

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609 058

## II. INTRODUCTION

The commissioning of the Pacific D-C Intertie in 1970 marked the first application of modern high voltage direct current transmission in this country. The design of this Intertie was made at a time when experience with long distance overhead d-c systems was very limited and was therefore admittedly conservative. Experience with the operation of this line and advances in HVDC transmission technology have provided an opportunity to beneficially utilize this design margin to increase the intertie capacity more economically than other transmission system alternatives.

Preliminary investigation of the subject showed the technical feasibility of raising the voltage of the line. Voltage upgrading appeared particularly attractive in view of the benefits derived from improved transmission efficiency and use of increased transmission capacity.

On November 16, 1978, at a meeting of the representatives of the West Coast utilities in Los Angeles, Bonneville Power Administration (BPA) presented its preliminary analysis indicating a benefit/cost ratio of about 2 for upgrading the Intertie by raising its voltage from  $\pm 400$  kV to  $\pm 500$  kV. The participants decided to establish two Task Forces, an Engineering Task Force and a Power Supply Task Force to review and finalize the BPA preliminary feasibility study. Membership of the Task Forces consists of designees of the interested utilities and is given in Appendix I.

Results of the coordinated efforts of the two Task Forces are presented in this report.

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### III. ENGINEERING FEASIBILITY

#### III.1. Engineering Features of Existing System

The 1361 km long Pacific HVDC Intertie is currently rated  $\pm 400$  kV, 1800 A, 1440 MW. The northern section of the Intertie, owned and operated by BPA, consists of the Celilo converter terminal at The Dalles, Oregon, and 426 km of the d-c line in Oregon. The southern section of the line, jointly owned by Los Angeles Department of Water and Power (LADWP), Southern California Edison Company (SCE) and the cities of Burbank, Glendale, and Pasadena and operated by LADWP, consists of the Sylmar converter terminal near Los Angeles and 935 km of d-c line in Nevada and California. The Intertie was commissioned in May 1970.

The rated direct voltage of  $\pm 400$  kV for the Intertie is obtained by using six series connected six-pulse three-phase bridge groups, each rated 133 kV, 1800 A. Fig. 1 shows the main circuit diagram for the Celilo converter terminal. Fig. 2 is the main circuit diagram for the Sylmar converter terminal. Except for some differences on the a-c side, both stations have basically the same equipment. The converter station designs were based on converter valve technology of the 1960's using mercury-arc valves for a-c/d-c conversion.

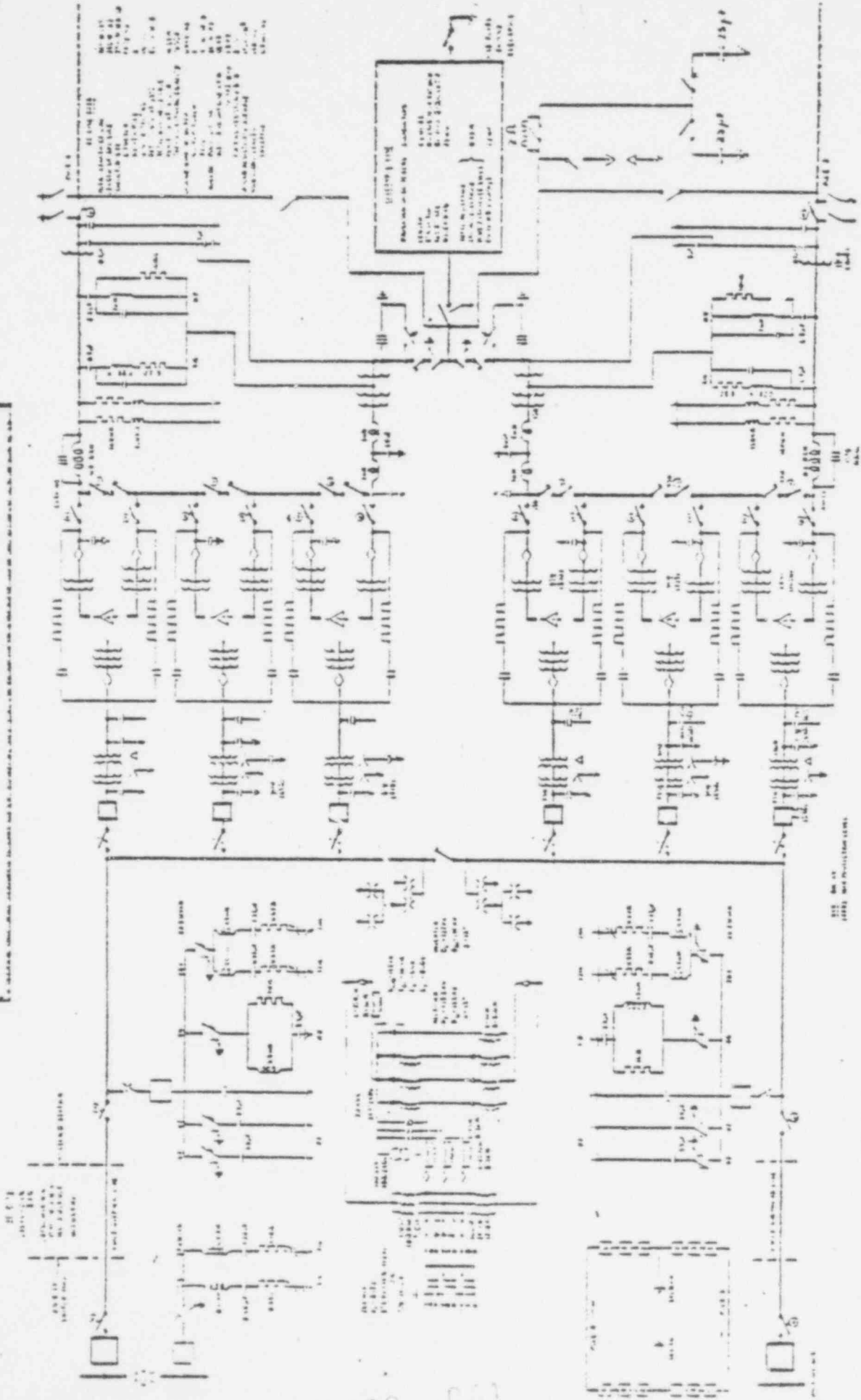
There are some differences in the design of the transmission line for the northern and southern section. The characteristics of the northern section can be seen from Fig. 3 showing typical guyed and self-supporting tower configurations. Fig. 4 shows typical tower configurations for the southern section of the line.

Design of the d-c line was admittedly conservative. The d-c line had to be built without the benefit of any operating data on any other comparable overhead d-c line. Design standards or codes such as NESC applicable to d-c line design had not been developed at the time. A good example of this conservative approach is the choice of the minimum live parts to tower steel clearance with assumed maximum insulator swing of  $30^\circ$ . The value, selected by BPA and LADWP was 93 inches (2.37 m). It was established on the basis of the application of NESC code at the time for an a-c line having a nominal 60-cycle peak voltage to ground the same as the nominal voltage to ground of the d-c line. It was recognized at the time that a more sound engineering approach of determining this clearance on the basis of maximum transient overvoltages on the d-c line would have provided a significantly lower value for this minimum clearance. However, the novelty of the technology prompted the designers to opt for the more conservative result

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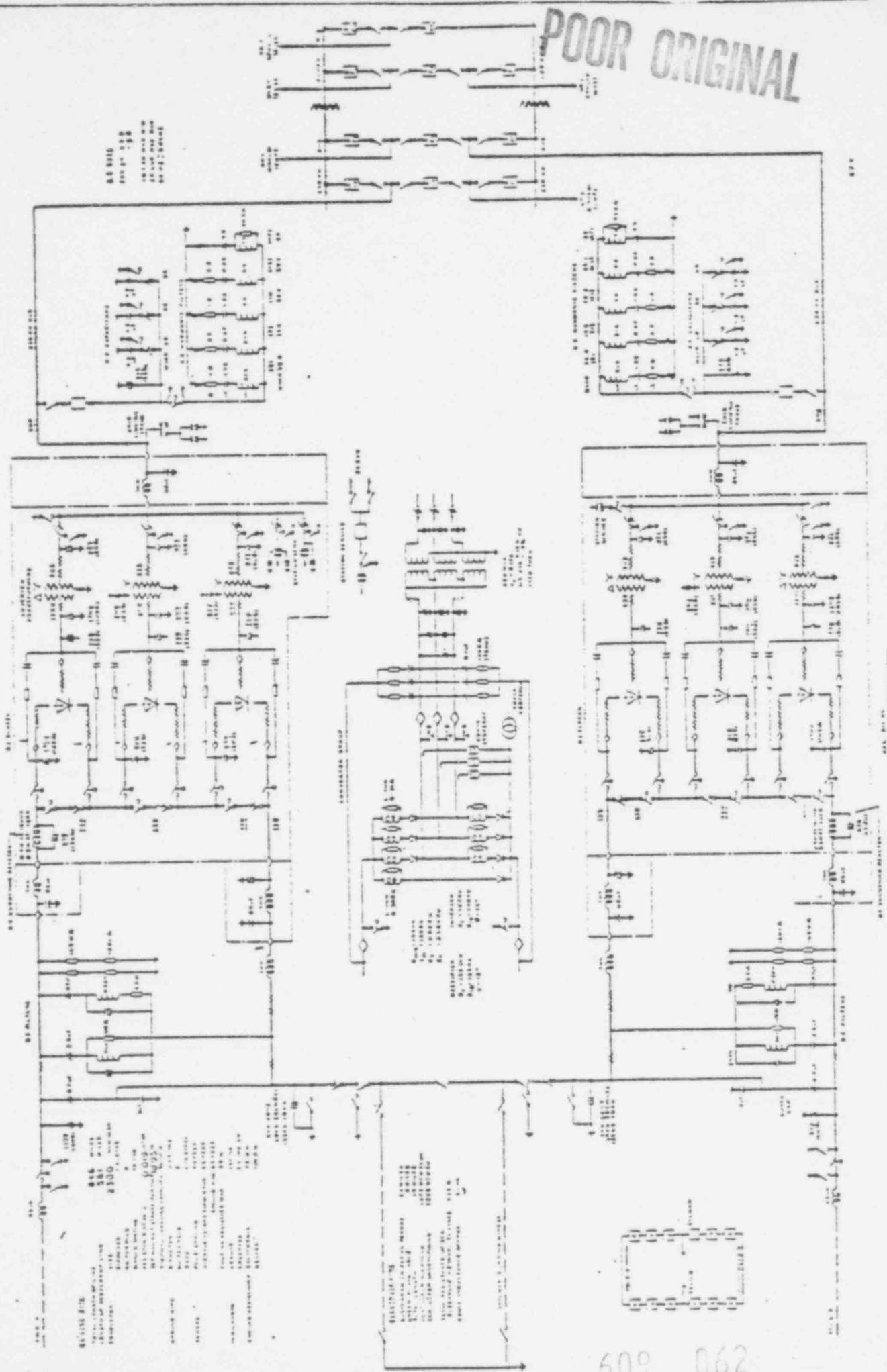
FIG. 1  
NORTHERN SECTION OF PACIFIC INTERTIE  
MAIN CIRCUIT



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FIG. 2  
SOUTHERN SECTION OF PACIFIC INTERTIE  
MAIN CIRCUIT



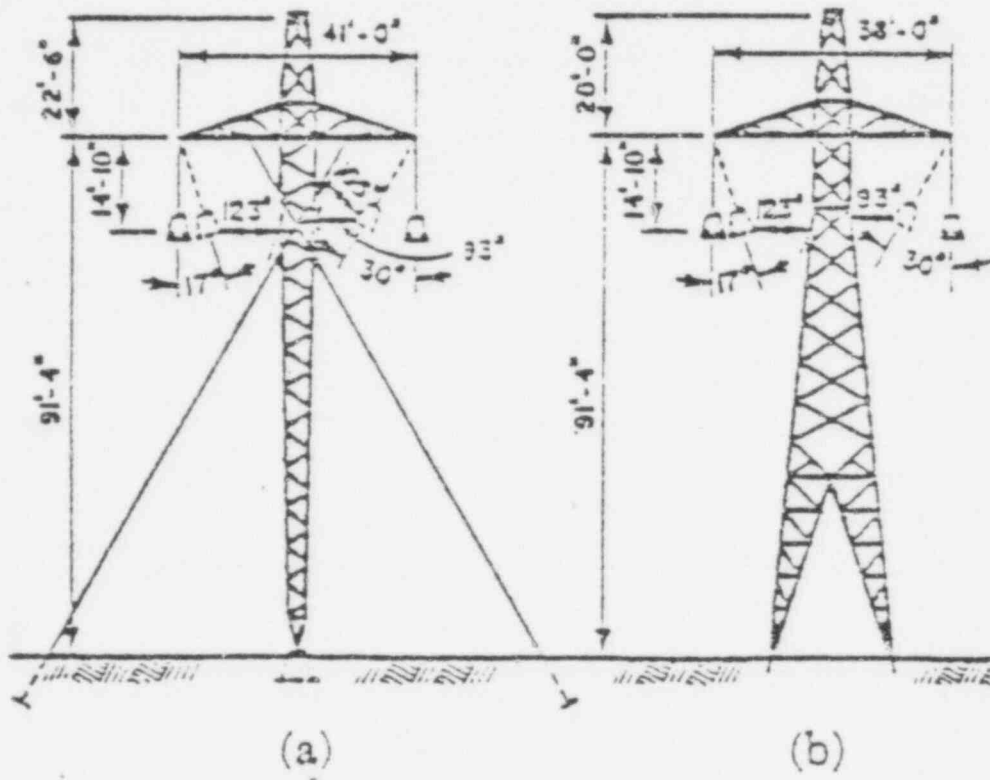


Fig. 3 Line Configuration for Northern Section

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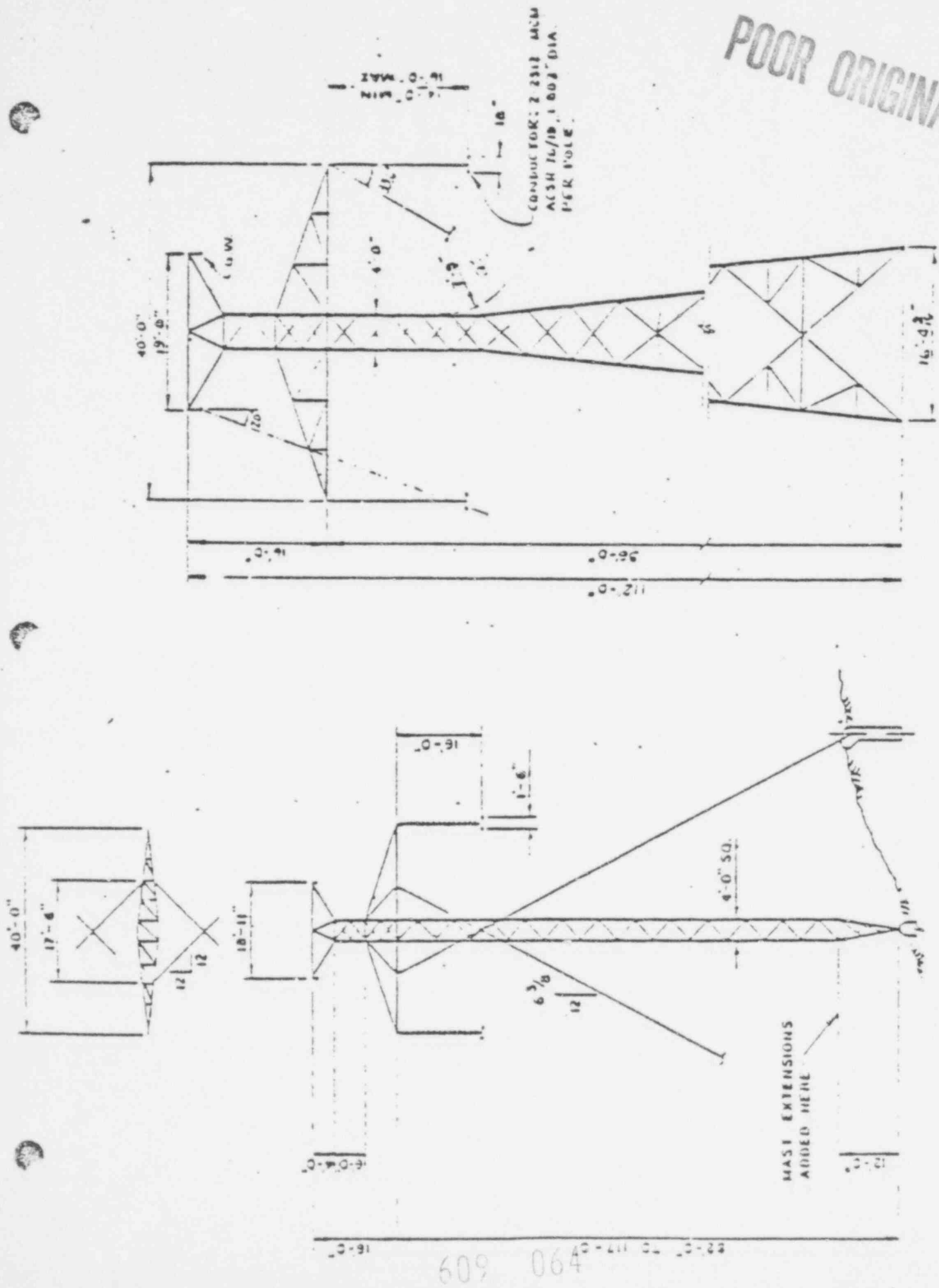


Fig. 4 Lino Configuration for Southern Section



of the legalistic approach of seeking an extension of an NESC philosophy to a d-c application not foreseen when the code was developed.

Experience with the d-c line and advances in d-c transmission technology provide an opportunity to upgrade the Intertie capacity by utilizing this design margin.

The overall performance of this Intertie has been very good. Two areas where the performance was less than satisfactory during the initial period of Intertie operation relate to (1) mercury-arc valves and (2) insulator contamination near Los Angeles.

Performance of the mercury-arc valves in the initial period of operation of the Intertie fell short of expectations. Valve problems manifested themselves mainly as unacceptably high rate of arbacks and consequential arbacks. As a result of subsequent improvements made in valve design and maintenance, it has been possible to bring the valve performance to the present satisfactory level.

Early operating experience included an unsatisfactory amount of contamination flashovers across dc insulation at the Sylmar converter terminal and in that section of dc line exposed to the level of atmosphere pollution inherent to the Los Angeles basin. This problem was compounded by the proximity of major freeways and by the unique seasonal pattern of rainfall which permits a greater accumulation of pollutant deposition than can be removed by normal rainfall. The incidence of flashover subsequently has been reduced to a more acceptable level by implementing costly procedures which include a yearly insulator cleansing at Sylmar and adding additional insulators and bimonthly hot line washing of the affected line insulation.

### III.2. Voltage Upgrading

Increasing the voltage level of the Intertie would improve transmission efficiency and permit increased transmission capacity. From this point of view, the first area investigated is the permissible increase in operating voltage of the line.

#### III.2.1. Line

Table I summarizes the results of the review of the various line parameters to determine the performance of the line operating at a higher voltage level. Appendix II provides explanatory notes on the results given in this table.

Supplementing analysis are tests conducted by BPA at the Dallas D-C Test Center and on the Pacific Intertie.

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TABLE I

## Evaluation of Performance of D-C Line for Voltage Upgrading

| I. <u>Corona Performance</u>                               | BPA Section |          | LADWP Section |                            | Comments*  |
|--|-------------|----------|---------------|----------------------------|------------|
|  | + 400 kV    | + 500 kV | + 533 kV      | + 400 kV + 500 kV + 533 kV |            |
| 1. Conductor Surface Gradient (kV/cm)                      | 20.6        | 25.8     | 27.4          | Equivalent                 | Calculated |
| 2. RI - dB( $\mu$ V/m) at 834 kHz @ 15m from positive pole | 51          | 59       | 62            | Equivalent                 | See Note 1 |
| 3. AR - dBA(20 $\mu$ Pa) @ 15m from positive pole          | 32          | 40       | 42            | Equivalent                 | See Note 2 |
| 4. TVI - dB( $\mu$ V/m) @ 75 MHz                           | Negligible  |          |               | Equivalent                 | See Note 3 |
| 5. Corona loss - kV/km                                     | 0.9         | 3.1      | 6.0           | Equivalent                 | See Note 4 |
| 6. Electric Field at Ground level kV/m                     | 12          | 18       | 20            | Equivalent                 | See Note 5 |
| 7. Current Density $\mu$ A/m <sup>2</sup>                  | 20          | 40       | 60            | Equivalent                 | See Note 6 |
| 8. Ozone   | Negligible  |          |               | Equivalent                 | See Note 7 |

\* Notes in Appendix II.

TABLE I Continued

Evaluation of Performance of D-C Line for Voltage Upgrading

| II. Insulators | Strike (SS)          | HPA Section |          | LADWP Section |          | Comments |            |
|----------------|----------------------|-------------|----------|---------------|----------|----------|------------|
|                |                      | + 400 kV    | + 500 kV | + 400 kV      | + 500 kV |          | + 533 kV   |
| 1. Strike (SS) | a. < 3000' duration  | 117.0"      | 117.0"   | 141"          | 141"     | 141"     | See Note 8 |
|                | b. 3000' - 4000'     | 123.5"      | 123.5"   | 141"          | 141"     | 141"     |            |
|                | c. 4000' - 5000'     | 136"        | 130"     | 141"          | 141"     | 141"     |            |
|                | d. > 5000'           | 136.5"      | 136.5"   | 158.6"        | 158.6"   | 158.6"   |            |
| 2. Creepage    | a. < 3000' elevation | 0.9"/kV     | 0.72"/kV | 0.68"/kV      | 1.11"/kV | 0.88"/kV | 0.83"/kV   |
|                | b. 3000' - 4000'     | 0.95"/kV    | 0.76"/kV | 0.71"/kV      | 1.11"/kV | 0.88"/kV | 0.83"/kV   |
|                | c. 4000' - 5000'     | 1.0"/kV     | 0.8"/kV  | 0.75"/kV      | 1.11"/kV | 0.88"/kV | 0.83"/kV   |
|                | d. > 5000'           | 1.05"/kV    | 0.84"/kV | 0.79"/kV      | 1.25"/kV | 1.0"/kV  | 0.94"/kV   |

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\* Notes in Appendix II.

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TABLE I Continued

Evaluation of Performance of D-C Line for Voltage Upgrading

|                                     | BPA Section |                        |          | LADWP Section |          |          | Comments*   |
|-------------------------------------|-------------|------------------------|----------|---------------|----------|----------|-------------|
|                                     | + 400 kV    | + 500 kV               | + 533 kV | + 400 kV      | + 500 kV | + 533 kV |             |
| III. <u>Line Clearances</u>         |             |                        |          |               |          |          |             |
| 1. Conductor to tower               | Adequate    | Adequate               | Marginal | Adequate      | Adequate |          | See Note 10 |
| 2. Conductor to ground              | Adequate    | Adequate               | Adequate | Adequate      | Adequate | Adequate | See Note 11 |
| 3. Conductor to conductor           | Adequate    | Adequate               | Adequate | Adequate      | Adequate | Adequate | See Note 11 |
| IV. <u>Minimum Working Distance</u> | Adequate    | Subject to constraints |          |               |          |          | See Note 12 |
| V. <u>Right-of-Way</u>              | Adequate    | Adequate               | Adequate | Adequate      | Adequate | Adequate | See Note 13 |

\* Notes in Appendix II.

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The tests at The Dalles D-C Test Center were on corona-related effects. A test line similar in conductor arrangement, pole spacing and ground clearance to the northern section of the Pacific Intertie was set up and energized at voltages of  $\pm 400$  kV,  $\pm 450$  kV,  $\pm 500$  kV,  $\pm 533$  kV,  $\pm 550$  kV, and  $\pm 600$  kV. Data was collected on corona loss, radio interference levels, audible noise levels, television interference, electric field near ground levels, ion currents, space charge, and ozone generation. As the notes referred to in Table I show, results of these tests have been incorporated in evaluating the performance of the line at higher voltages.

Comparison of line parameters having a bearing on corona-related effects such as conductor size, pole spacing and clearance to ground for the northern section and the southern section of the Intertie (Figs. 3 and 4) shows that the performance of the southern section of the Intertie should be essentially identical to that of the northern section in this respect. Therefore, the results of the tests at The Dalles apply to the entire Pacific Intertie.

Other tests were carried out on the Pacific Intertie relating to insulator performance. A field test program was initiated 2 years ago in the northern section to evaluate line performance with reduced leakage and strike distances. At three locations at different elevations, insulator strings were partially shorted to simulate voltage stress comparable to operation at  $\pm 500$  to  $\pm 550$  kV. Insulators on both poles of 54 towers are undergoing this test and no flashovers have been recorded at these locations.

The insulator test results on the northern section of the Intertie are not directly applicable to the southern section. However, in general (exceptions to be discussed later) the same considerations which originally led to the conclusion that the northern section could be operated with reduced insulation are applicable to the southern section: The initial conservative design of the d-c line provides margin in the insulation performance and the extent to which this can be utilized can be determined from laboratory tests on d-c insulator performance. The field test results for the northern section provide confidence in applying the laboratory test results to the southern section.

On this basis it appears that there is adequate insulator margin for most of the southern section. However, it is recognized that it is necessary to carry out some tests similar to those conducted in the northern section to identify possible localized problems. About 2 years operating experience at reduced leakage should bring out any such problems. Should

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such tests reveal any problem areas, it could be remedied by adding some insulators. The cost impact of any such solution is estimated to be less than 1 percent of the total cost of the project.

Two areas where line modifications might be required to improve insulator contamination performance are Lake Abert-Abert Rim area in Oregon and the 43 km section of the line near Los Angeles.

Along a 5 km section of line in the Lake Abert-Abert Rim area, a number of flashovers occurred in May 1977. It was determined that these flashovers were the result of severe alkaline contamination due to the proximity of the line to the nearby lake and the extreme drought conditions of that year. The performance of this section could be improved by adding or changing insulators in this short section. Since the contamination severity was related to the unusual drought conditions at this time, there may not be any need to make permanent changes. Washing insulators might be sufficient should such extreme conditions develop in the future. In either case, the solution does not have any significant cost impact.

LADWP investigated the modifications needed on the 43 km section of the line near Los Angeles to maintain the present level of performance and frequency of insulator washing when the voltage is raised to  $\pm 500$  kV. It will be necessary to add 8 insulator units bringing the total number of units in the string to 38. To retain required conductor-to-tower clearance with longer insulator strings, hold-down weights will be added to limit the swing angle. This solution will be adequate for 83 out of 120 suspension towers. The remaining 37 towers will have to be rebuilt. It is estimated that these modifications would require about 5 months. Estimated outage requirements are 3 hours/day for 5 days/week for 15 weeks.

From the analysis of the line parameters and the test results it can be concluded that the Intertie can be operated at  $\pm 500$  kV, except for corrective action required in the 43 km section of the line near Los Angeles and that might be needed in the 5 km section of the line near Lake Abert-Abert Rim area in Oregon and in possible localized areas of California and Nevada (for further discussion see section III.8.).

When it was initially recognized that the d-c line could be upgraded to a voltage of  $\pm 500$  kV or above, special attention was given to the possibility of operating at  $\pm 533$  kV. This is due to the advantages of having new converter groups at the terminal having the same ratings as the existing 133 kV converter groups. In this regard, the conclusion based on analysis and test results is that the line performance at  $\pm 533$  kV would be only marginally acceptable. Therefore,  $\pm 500$  kV has been selected as the voltage level for upgrade.

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With the same operating current levels, voltage upgrade has no impact on ground current levels during monopolar ground return operation. For operation at the same power levels, voltage upgrade would reduce the ground current during this mode of operation.

### III.3. Current Rating

Conductors used for Pacific Intertie have thermal capability about twice the present current rating of the terminals. If current increase beyond the limits of the major components is required, it can be achieved only by parallel converter terminal equipment. However, this approach to increase transmission capacity is not considered economically attractive for several reasons: (a) while voltage upgrading improves transmission efficiency, current upgrading degrades transmission efficiency resulting in increased losses, (b) cost of additional terminal equipment on a dollars-per-kW basis is expected to be significantly higher, (c) technical problems related to parallel operation of existing mercury-arc converters and new parallel solid-state converter addition need to be resolved. For these reasons, this method of raising Intertie capacity is not now considered attractive.

The possibility of changing the Intertie current rating on a short-term or continuous basis utilizing any current margin inherent in the existing equipment has been under investigation by EPA and LADWP. Certain tests were carried out on the Intertie recently for this purpose and the data is being analyzed to develop appropriate engineering recommendations. Before a final determination can be made on the possible increase in operating current on a continuous basis, a number of technical questions need to be resolved concerning the tests and possible long-term effects of operation at high currents on the rectifier valves. The tentative conclusion at this time is that it is unlikely that the existing system can be operated on a continuous basis for currents above 2000 A. Therefore, for the purpose of evaluating the voltage upgrading a possible increase of operating current level of 2000 A was assumed. The higher operating current would not change the impact on buried pipelines due to ground current as the intent would be to stay within the accepted total annual ampere-hours of ground current.

From an engineering point of view, current upgrading does not negatively impact voltage upgrading.

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#### III.4. Terminal Arrangement

There is no question about the technical feasibility of increasing the voltage rating of the terminal by adding series connected converter groups. The technique has been successfully implemented in the first modern HVDC transmission system--the Gotthard scheme in Sweden.

Some preliminary engineering studies have been conducted on the plan for adding the converter groups. However, many of the details of the arrangements would be decided upon at the design stage after project approval.

The plan currently favored is to add two six-pulse converter groups, one in each pole of Celilo and Sylmar converter terminals. Based on developments in converter technology, solid-state valves will be used for a-c/d-c conversion. A "booster bridge" concept as shown in Fig. 5, is proposed to minimize interference with the operation of the existing system during the installation of the new groups. The need for additional shunt filters on the 500-kV side of the bridge would be evaluated further and would be eliminated if found unnecessary.

Three different options are under consideration for the voltage rating of the groups: (1) 100-kV group, (2) 133-kV group which could be converted to 100-kV operation facilitating interchangeability with existing groups, and (3) 125-kV group, modifying existing converter groups for 125-kV operation. The second option is favored at present and was the basis for cost determination.

Regarding the current rating of the new groups, it should match at least the current ratings of the existing system. To meet the 110-percent 1 hour overload rating of present equipment, it will be necessary to obtain solid-state valves with continuous current rating of at least this value. Taking this into account and considering the possibility of changing operating current level of existing system, it is proposed to provide the new converter groups a current rating of at least 2000 A.

There are a number of options with regard to location of the groups and no major problems have been identified in meeting needed space requirements at Celilo or Sylmar.

Modifications would be required in the d-c inertia control system if new groups are added. To some extent this would result in modernization of existing control equipment. That should result in better overall performance and availability of the Inertia since control system performance is an important factor in determining the system reliability.

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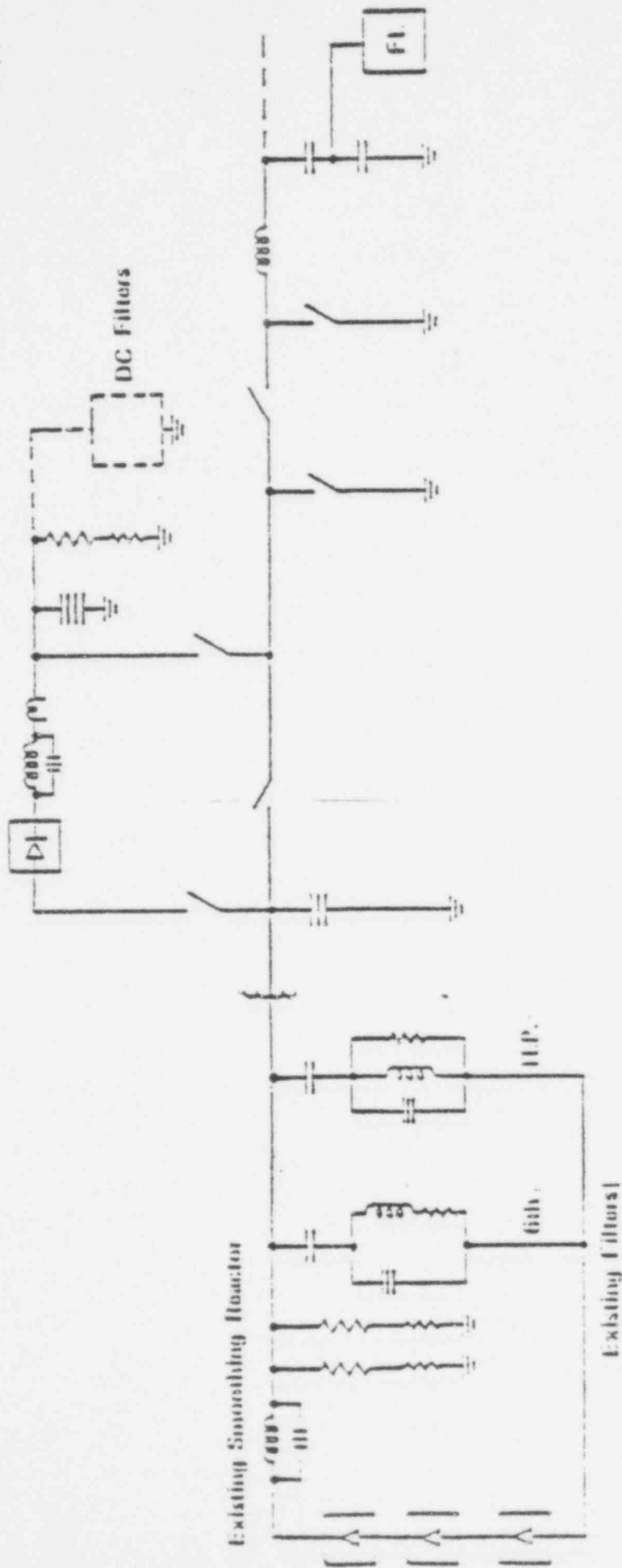


Fig. 6

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New groups and the associated terminal modifications would modify line terminations which have a bearing on overvoltages on the line. In this respect voltage upgrading provides an opportunity to apply results of advances in d-c technology since the Pacific Intertie was built.

### III.5. Ratings of the Upgraded System

With present current rating of 1800 A, raising the voltage to + 500 kV would raise the transmission capacity of the Intertie by 360 MW to 1800 MW. If the current rating of the existing equipment is raised to 2000 A, the voltage upgrading would increase the capacity by 400 MW to 2000 MW. These ratings refer to the power at the d-c terminals of the sending end.

### III.6. Losses

Fig. 6 shows the calculated value of losses in the transmission system, as a function of the power at the d-c terminals of the sending end. Included in the losses are the line losses due to conductor resistance, corona losses and the terminal losses at the inverter end.

### III.7. System Performance

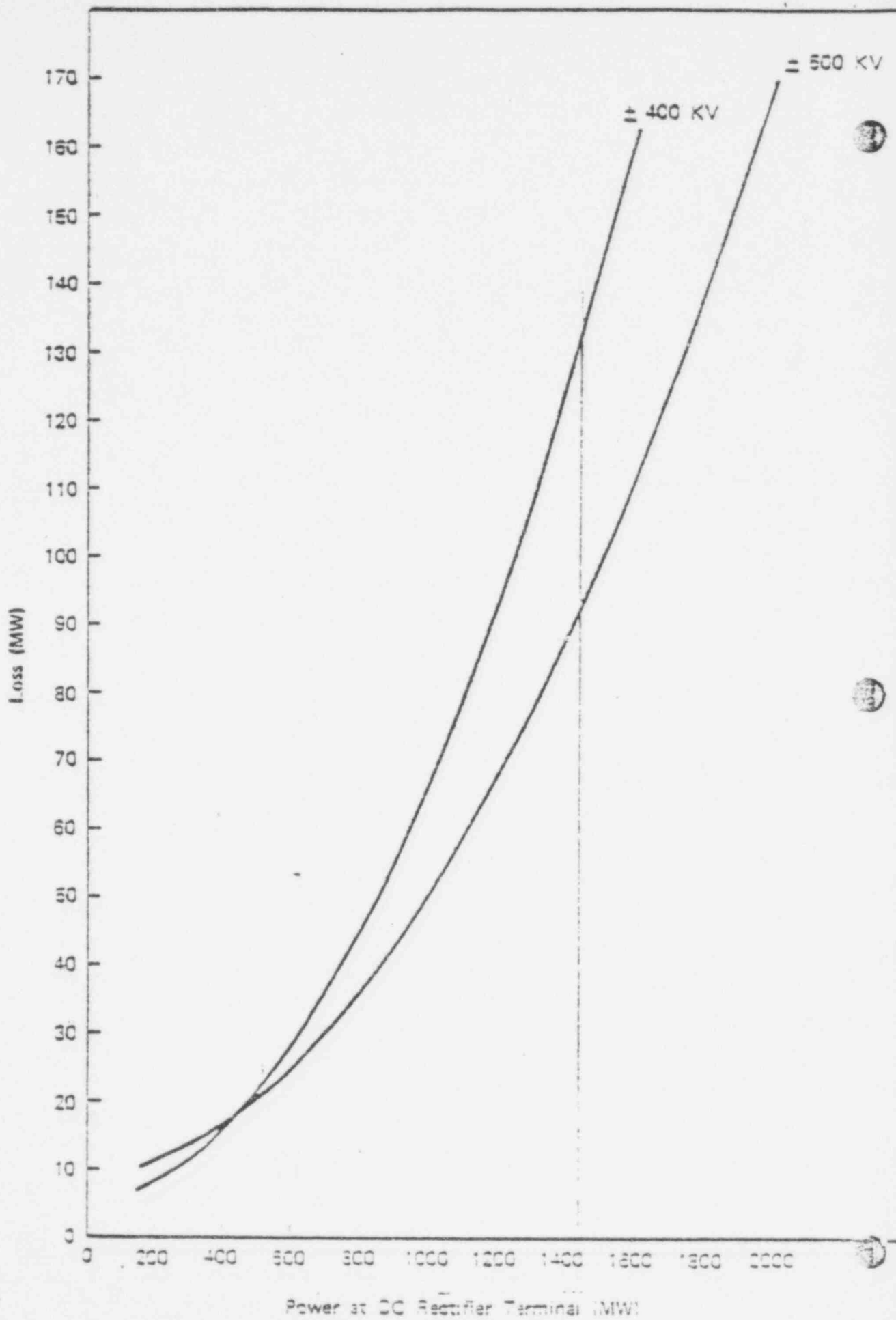
Loss of the d-c system when fully loaded impacts the a-c Intertie and the severity of this disturbance depends upon the actual loading on both the a-c and d-c. Actions taken to date for loss of the d-c line consist of:

1. For loss of one pole, series compensation between John Day and Malin is switched from 50 percent to 75 percent compensation.
2. For loss of both poles of the d-c line the compensation level is increased and a maximum of 300 MW of generation dropped at The Dalles powerhouse.

Studies have been conducted over a number of years to determine the generator dropping requirements for loss of the d-c line with the a-c Intertie loaded to 2500 MW actual. These studies have shown that under peak load conditions dropping 500 MW at The Dalles is sufficient to prevent the swing on the a-c Intertie from entering the 50-ohm tripping circle on the Intertie out-of-step relay at Malin. Under certain light load conditions, studies indicate the desirability of increasing the generator dropping level to 300 MW. Therefore, with the a-c and d-c lines fully loaded 300 MW of generation is dropped for loss of both poles of the d-c to cover the most severe conditions studied.

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Power at DC Rectifier Terminal (MW)

Fig. 6 DC Interline Losses

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Studies were conducted on a 1984 system to determine system performance with the Celilo-Sylmar d-c line loaded up to 2000 MW covering cases of both voltage and current increase. The latest WSCC base case (1984 HS-3) was modified to provide a peak summer case (84A332) with 2,000 MW on the d-c and 2,500 MW actual on the AC Intertie at Malin. Since WSCC does not have a light summer case, a summer light load case (84LS56) was developed from WSCC Case 1984HS-1.

Power flow diagrams for cases 84A332 and 84LS56 are included in Appendix III. No overloads were found for outage conditions. The system as proposed for 1984 is adequate to support the increased loading on the dc line.

Generator dropping requirements were determined for loss of both poles of the d-c line loaded to 2000 MW with the a-c Intertie at 2500 MW actual. Both heavy and light load conditions were studied and results indicate that dropping of 1000 MW in the Northwest along with capacitor switching is sufficient to provide margin to prevent operation of the out-of-step relay at Malin.

Generator dropping at The Dalles was assumed in these studies. However, if it is determined that additional generation needs to be dropped this will be planned such that loss of both poles of the d-c will not jeopardize the a-c Intertie.

Typical plots of the stability studies made to determine the generator dropping level are included in Appendix III.

It is recognized that increasing the d-c Intertie capacity also provides some benefit from the point of view of stability when the d-c Intertie is not fully loaded. There would be greater margin for fast power changes on the d-c line to counteract instability conditions in the a-c system.

### III.8. Outages

The installation of the new equipment and interfacing it with existing system would require some outage of existing system. It is difficult to estimate these outage requirements accurately without more detailed engineering study. By proper coordination of the activities of the different parties involved, it is expected that the required total outages can be limited to about 4-6 weeks for terminal modifications. This is the total cumulative time and not a continuous outage requirement.

As outlined, line modifications near Los Angeles would require significant outage time. Based on performing the work most efficiently, outage requirements are estimated at eight hours/day, five days/week for 15 weeks. The calculated cost (penalty) of

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this outage in terms of possible loss of secondary energy sales on the D-C Intertie could be as much as \$20 million. This can be avoided by not scheduling the work during the surplus season.

Calculated cost of this outage in terms of possible use of Southwest peak generation as a substitute for peak capacity transmission on the Intertie would be about \$12 million. It is unlikely that there would be such a cost penalty considering the normal use of D-C Intertie for capacity transaction and the possibility of utilizing alternate PNW-PSW transmission facilities such as the A-C interties. In any case, cost penalty of the order of \$12 million for this work is considered excessive and other engineering solutions would be found to minimize the impact of the outage.

One alternative would be to spread the work for tower rebuilding over many years, performing it during the outage period of the regular annual maintenance or even delaying the work until the expiration of the present capacity/energy exchange contract.

The options of delaying the work can be accomplished by a modification of the engineering solution to the contamination problem. The proposed line modifications near Sylmar are for achieving a long-term solution to the contamination problem when the line is upgraded to  $\pm$  500 kV. Other short-term solutions are available. One approach would be to replace existing insulators with nonceramic or synthetic insulators until suitable time is available to make the tower modifications. This type of insulator has been tested on the D-C Intertie and found to have better contamination performance than the porcelain insulators they would replace. Insulators can be replaced without any outage. This alternative would provide considerable flexibility in scheduling the outages for permanent tower modifications and thereby eliminate the cost penalty for outage. It is estimated that this approach would not increase the cost of line modifications by more than \$0.5 million.

### III.9. Costs

Based on 1973 dollars, the estimated cost of the project is given in Table II. These cost estimates are based on the following assumptions:

1. Expected life of the plant - 35 years
2. Annual interest rate for BPA cost - 8.95 percent
3. Annual interest rate for the southern section - 12 percent for 50%  
- 7 percent for 50%

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TABLE II  
Costs for Voltage Upgrade (In 1978 \$ Millions)

|                                 | BPA Section    |               | Southern Section |               | Total |
|---------------------------------|----------------|---------------|------------------|---------------|-------|
|                                 | 50% @ 12% Int. | 50% @ 7% Int. | 50% @ 12% Int.   | 50% @ 7% Int. |       |
| I. Capital Investment           |                |               |                  |               |       |
| A. Direct Capital Investment    |                |               |                  |               |       |
| Terminal                        | 32.00          | 16.00         | 16.00            | 32.00         | 64.00 |
| Line                            | --             | 0.50          | 0.50             | 1.00          | 1.00  |
| Total                           | 32.00          | 16.50         | 16.50            | 33.00         | 65.00 |
| B. Interest During Construction | 5.38           | 3.73          | 2.13             | 5.86          | 11.24 |
| Investment Cost                 | 37.38          | 20.23         | 18.63            | 38.86         | 76.24 |
| II. Annual Cost                 |                |               |                  |               |       |
| A. Interest and Amortization    | 3.52           | 2.48          | 1.43             | 3.91          | 7.43  |
| B. O&M                          | 0.10           | 0.05          | 0.05             | 0.10          | 0.20  |
| C. Other Carrying Charges       | --             | 1.21          | --               | 1.21          | 1.21  |
| Annual Cost                     | 3.62           | 3.74          | 1.48             | 4.22          | 8.84  |

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#### IV. UTILIZATION AND BENEFITS OF UPGRADING THE D-C INTERTIE

The d-c Intertie is presently used routinely for two purposes: (1) transmission of surplus secondary energy in the Northwest to conserve more expensive Southwest energy (secondary sales); and (2) capacity support during peak load periods in the Southwest in exchange for energy return to the Northwest during off-peak periods (capacity-energy exchange). The existing contracts for capacity-energy exchange expire in 1987. In addition, the Intertie has been used occasionally for such diverse transactions as emergency energy sales both to and from the Pacific Northwest and storage of excess generation resulting from fish flow operations in the Pacific Northwest.

##### IV.1. Secondary Sales on Upgraded Line

Levels of line loading and the frequency with which such levels may be expected to occur have been estimated from BPA studies of Pacific Northwest secondary energy availability. Such studies, under varying hydraulic conditions, provide values of monthly average energy and sustained peak capability potentially available on a nonfirm basis for export to the Pacific Southwest. From these peak and average capabilities, off-peak exports have been determined and duration curves of line loadings (including peak and off-peak) have been computed. Secondary energy analyses used to estimate line loadings were made subject to the provisions of Public Law 88-552 (the Regional Preference Act).

Figure 7 is a duration curve of line loadings for the 1989 anticipated level of development. The duration curves were developed assuming different values for the total (a-c and d-c) Intertie capacities, corresponding to the changes in Intertie ratings resulting from voltage and/or current upgrading of the d-c Intertie. The duration curves for d-c line loadings were established based on the assumption that increasing the capacity of the d-c Intertie would not alter the loading levels on the a-c Interties. When both a-c and d-c Interties are not fully loaded, it was assumed that the powerflow would follow the general pattern of the past, the d-c Intertie carrying about 60 percent of the power until it is fully loaded. Since this applies to only a small part of the duration curve, small variations in the ratio of loadings on the a-c and d-c Interties would have no significant impact on the load-duration curves. Shown on the figure are incremental, cumulative incremental, and total average annual megawatts of secondary energy production associated with d-c upgrade levels of 160, 360, and 560 megawatts.

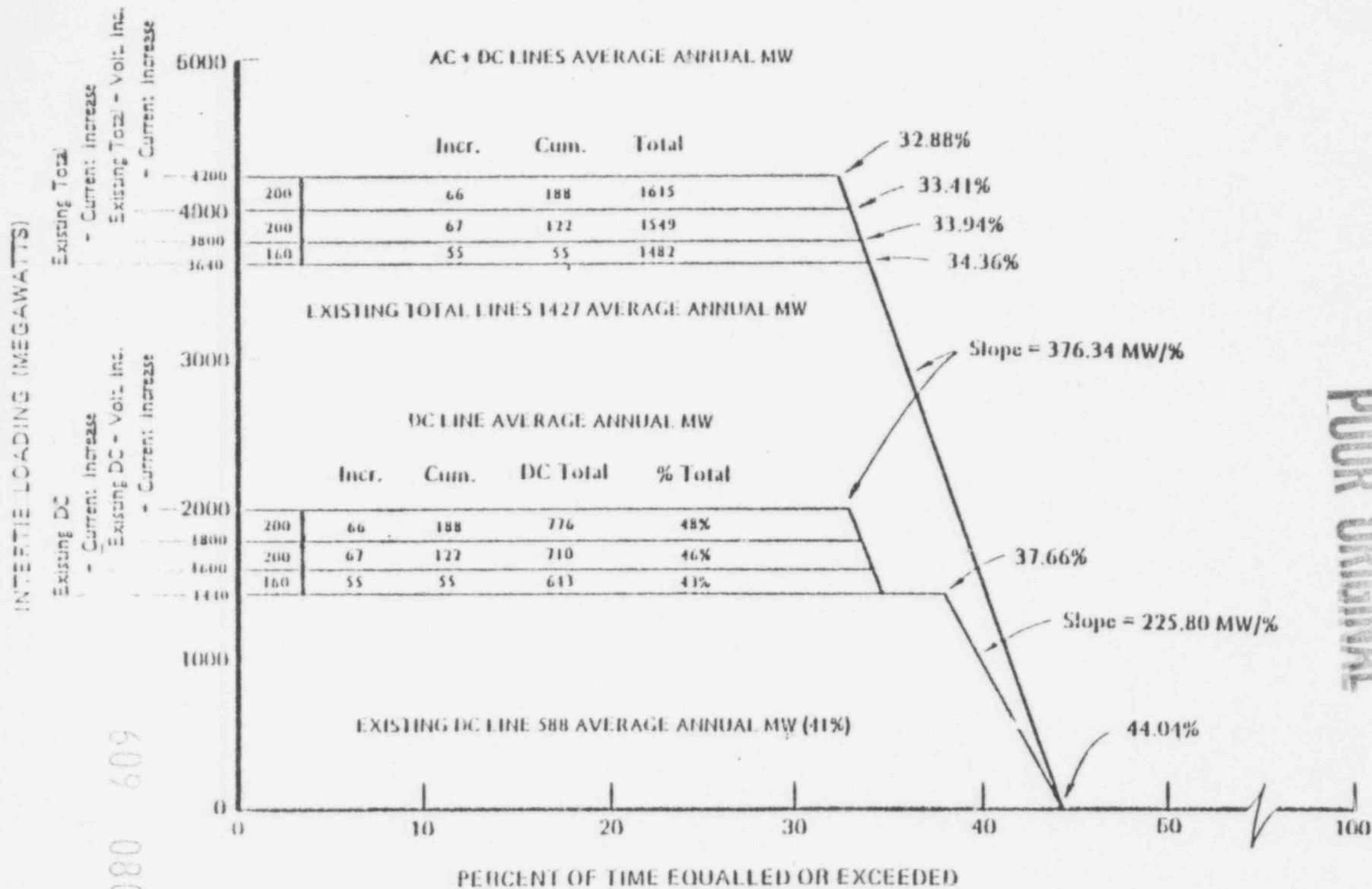
The duration curves of loading on the upgraded d-c line shown in Figure 7 are based on the assumption that a-c intertie capacity for secondary energy delivery is 2200 MW. This takes

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Figure 7

DURATION CURVE OF INTERTIE LOADINGS PNW TO PSW  
 PNW BALANCED LOAD/RESOURCE CONDITION  
 (MEGAWATTS OF SECONDARY ENERGY)



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into account a reduction in a-c interstate capacity due to loop flow. If loop flow pattern on the a-c interstate should change in the future, it would not have a significant impact on the estimated d-c interstate loading. Estimated reduction in the benefits from the upgraded d-c line based on the assumption of 2500 MW capacity on the a-c interstate is about 2 percent.

Figure 7 was developed assuming an approximate firm energy load/resource balance in the Pacific Northwest (167 MW firm power deficit--interruptible not included in the firm load). The thermal resources included as firm resources in this balance are shown in Table III, based on EPA's 1978 Power Outlook publication. Of the new thermal projects listed on Table III, six are under construction. Construction status is listed below.

|          | <u>Probable<br/>Energization Date</u> | <u>% Complete (12/1/78)</u> |
|----------|---------------------------------------|-----------------------------|
| Boardman | Nov. 1980                             | 45.0                        |
| WNP #2   | June 1981                             | 73.7                        |
| WNP #1   | Dec. 1983                             | 19.5                        |
| WNP #3   | Mar. 1985                             | 9.1                         |
| WNP #4   | Mar. 1985                             | 9.1                         |
| WNP #5   | July 1985                             | 0.5                         |

Updated probable energization dates for these and the other projects in Table III are given in Table IIIA. The probable energization dates reflect current regulatory and construction milestones achieved.

Site preparation and limited construction have been performed for Colstrip #3 and #4. Currently, legal approval is being sought for further construction. Pebble Springs #1 site hearings have been concluded, and a siting decision is expected in June 1979. A limited work authorization is presently pending for Skagit #1 and #2.

During the last several years, year-to-year reductions in the forecast of PNW regional loads have partially offset the effect which plant delays have had on future load/resource balance.

Although it is the policy of PNW power planners to strive for firm load/resource balance, any future firm energy deficits which might occur would have the effect of reducing secondary sales over the interstate and over the upgraded portion of the d-c interstate. Effects of firm deficits on potential benefits of upgrade are considered in more detail in Section III.A.

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Table III  
WEST GROUP AREA LOADS AND RESOURCES  
Critical Hydro Conditions  
Average Energy  
Megawatts

|                                 | 1970-72 | 1979-80 | 1980-81 | 1981-82 | 1982-83 | 1983-84 | 1984-85 | 1985-86 | 1986-87 | 1987-88 | 1988-89 |
|---------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| <b>Loads</b>                    |         |         |         |         |         |         |         |         |         |         |         |
| 1. Area Firm Energy Load        | 15,075  | 15,832  | 16,656  | 17,600  | 18,440  | 19,344  | 19,807  | 20,656  | 21,445  | 22,270  | 23,146  |
| 2. Imports                      | 650     | 629     | 647     | 496     | 339     | 203     | 205     | 201     | 209     | 201     | 174     |
| 3. Total Energy Requirements    | 15,725  | 16,461  | 17,303  | 18,096  | 18,779  | 19,547  | 20,012  | 20,857  | 21,654  | 22,471  | 23,320  |
| <b>Resources</b>                |         |         |         |         |         |         |         |         |         |         |         |
| 4. Falmouth                     | 14,570  | 14,553  | 14,517  | 14,511  | 14,503  | 13,902  | 13,966  | 13,943  | 13,944  | 13,925  | 13,919  |
| 5. Lapeque                      | 1,394   | 1,508   | 1,608   | 1,567   | 1,501   | 1,477   | 1,378   | 1,310   | 1,162   | 1,000   | 683     |
| <b>Res Hydro</b>                |         |         |         |         |         |         |         |         |         |         |         |
| 6. Grand Coulee 3rd Power Plant | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       |
| 7. Chief Joseph Addition        | 0       | 31      | 64      | 64      | 64      | 64      | 64      | 64      | 64      | 64      | 64      |
| 8. Rock Island Addition         | 110     | 123     | 123     | 123     | 123     | 123     | 123     | 123     | 123     | 123     | 123     |
| 9. Lower Monumental             | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       |
| 10. Grand Coulee Pump Generator | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       |
| 11. High Rock                   | 0       | 0       | 36      | 36      | 36      | 36      | 36      | 36      | 36      | 36      | 36      |
| 12. Bonneville 2nd Power Plant  | 0       | 0       | 10      | 56      | 56      | 56      | 56      | 56      | 56      | 56      | 56      |
| 13. Bonneville Addition         | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       |
| 14. Elby Re-regulating          | 0       | 0       | 0       | 0       | 0       | 11      | 29      | 29      | 29      | 29      | 29      |
| 15. Cooper Addition             | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       |
| 16. Altruda                     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       |
| 17. Total Res Hydro             | 110     | 154     | 233     | 279     | 279     | 290     | 308     | 310     | 311     | 311     | 311     |
| <b>Res Thermal</b>              |         |         |         |         |         |         |         |         |         |         |         |
| 18. WPP #2                      | 0       | 0       | 110     | 607     | 625     | 625     | 625     | 625     | 625     | 625     | 625     |
| 19. Colville #3                 | 0       | 0       | 0       | 74      | 313     | 360     | 360     | 360     | 360     | 360     | 360     |
| 20. Bostwick Coal               | 0       | 0       | 191     | 354     | 350     | 350     | 350     | 350     | 350     | 350     | 350     |
| 21. Colville #4                 | 0       | 0       | 0       | 0       | 122     | 325     | 360     | 360     | 360     | 360     | 360     |
| 22. WPP #1                      | 0       | 0       | 0       | 0       | 63      | 765     | 930     | 930     | 930     | 930     | 930     |
| 23. Skagit #1                   | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 713     | 966     | 966     | 966     |
| 24. WPP #3                      | 0       | 0       | 0       | 0       | 0       | 62      | 760     | 930     | 930     | 930     | 930     |
| 25. WPP #4                      | 0       | 0       | 0       | 0       | 0       | 0       | 437     | 660     | 930     | 930     | 930     |
| 26. WPP #5                      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 436     | 493     | 930     | 930     |
| 27. Falmouth Springs #2         | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 109     | 403     | 945     | 945     |
| 28. Skagit #2                   | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 713     | 966     |
| 29. Falmouth Springs #1         | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 109     |
| 30. Total Res Thermal           | 0       | 0       | 301     | 1,095   | 1,681   | 2,703   | 4,054   | 6,043   | 7,347   | 8,339   | 8,721   |
| 31. Grand Resources             | 16,074  | 16,201  | 16,659  | 17,452  | 17,964  | 18,452  | 19,266  | 20,614  | 22,104  | 23,405  | 24,634  |
| 32. Imports                     | 413     | 309     | 394     | 439     | 395     | 403     | 426     | 435     | 452     | 469     | 400     |
| 33. Res Resources               | 15,661  | 15,890  | 16,265  | 17,013  | 17,569  | 18,043  | 19,200  | 21,179  | 22,599  | 23,876  | 25,034  |
| 34. Firm Supply or (Deficit)    | (64)    | (563)   | (1,030) | (1,003) | (1,210) | (1,290) | (112)   | 316     | 655     | 547     | (167)   |

WPA - Branch of Power Resources  
January 22, 1979

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Table III A  
Thermal Power Plants  
Scheduled Dates of Commercial Operation  
and Probable Energy Dates

|                   | <u>Scheduled Commercial Operation</u>        |                             |                               | <u>Probable Energy Date</u>    |                             |                               |
|-------------------|--|-----------------------------|-------------------------------|--------------------------------|-----------------------------|-------------------------------|
|                   | <u>1978</u><br><u>Bluebook</u> <sup>1/</sup> | <u>1979</u><br><u>THUCG</u> | <u>Delay</u><br><u>Months</u> | <u>1978</u><br><u>Bluebook</u> | <u>1979</u><br><u>THUCG</u> | <u>Delay</u><br><u>Months</u> |
| Jim Bridger #4    | Dec 1979                                     | Dec 1979                    | --                            | Dec 1979                       | Dec 1979                    | --                            |
| Boardman Coal     | July 1980                                    | July 1980                   | --                            | Nov 1980                       | Nov 1980                    | --                            |
| WHP #2            | Sept 1980                                    | Sept 1981                   | 12                            | May 1981                       | Sept 1981                   | 4                             |
| Colatrip #3       | Apr 1982                                     | July 1983                   | 15                            | Apr 1982                       | July 1983                   | 15                            |
| Colatrip #4       | Febr 1983                                    | May 1984                    | 15                            | Febr 1983                      | May 1984                    | 15                            |
| WHP #1            | Dec 1982                                     | Dec 1983                    | 12                            | June 1983                      | Dec 1983                    | 6                             |
| WHP #3            | June 1984                                    | Dec 1984                    | 6                             | June 1984                      | March 1985                  | 9                             |
| WGP #4            | June 1984                                    | June 1985                   | 12                            | Dec 1984                       | June 1985                   | 6                             |
| Skagit #1         | July 1985                                    | Sept 1986                   | 14                            | July 1985                      | Nov 1986                    | 16                            |
| WHP #5            | July 1985                                    | June 1986                   | 11                            | Dec 1985                       | June 1986                   | 6                             |
| Pebble Springs #1 | Apr 1986                                     | March 1987                  | 11                            | Apr 1986                       | March 1987                  | 11                            |
| Skagit #2         | July 1987                                    | Sept 1988                   | 14                            | July 1987                      | Nov 1988                    | 16                            |
| Pebble Springs #2 | Apr 1989                                     | Apr 1989                    | --                            | Apr 1989                       | Apr 1989                    | --                            |

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<sup>1/</sup> And Power Outlook

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Figure 7 also reflects a constraint on on-peak exports of energy to the Pacific Southwest so that total Pacific Northwest generation did not exceed its 10-hour sustained peak capability.

#### IV.2. Benefits from Secondary Energy Sales

There are two principal benefits derivable from voltage upgrade: (1) benefit due to improved transmission efficiency (by raising transmission voltage); and (2) benefit due to increased secondary sales (by utilizing increased transmission capacity).

From duration curves of line loadings given in Figure 7, these two benefits, in terms of increased energy delivered at the receiving end, are tabulated in Table IV, columns 6 and 7. The table shows average annual benefits due to improved transmission efficiency of 15.35 MW with voltage increase and 20.68 MW with both voltage and current increases. The corresponding benefits due to increased secondary sales using the increased transmission capacity are 106.2 MW and 112.9 MW.

The estimated dollar benefits from increased energy delivered due to voltage upgrade are shown in Table V. The table reflects Pacific Northwest and Pacific Southwest combined benefits. For the calculation of these benefits, it has been assumed that: (1) secondary energy deliveries in the Southwest are on average worth 25 mills/kWh; (2) Pacific Northwest variable production costs average 10 mills/kWh.

Table V shows that voltage upgrade would provide average annual benefits of about \$16 million from increased secondary energy delivery to the Southwest. Furthermore, the level of benefits from voltage upgrade is of the same order with or without current upgrading.

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TABLE IV

| Scheduled Operating Level                 | 1     | 2     | 3                              | 4                   | 5                                | 6   | 7  |
|---|-------|-------|--------------------------------|---------------------|----------------------------------|---|--|
|   | (kW)  | (KV)  | Average Sending End Power (kW) | Average Losses (kW) | Average Receiving End Power (kW) | Receiving End Added Average Secondary Deliveries From Loss Savings Due to Voltage Upgrade | Receiving End Average Secondary Deliveries Due to Increase in Capacity |
| Voltage Upgrade Without current operating | 1,440 | 800   | 595                            | 59.65               | 536                              |   |  |
|   | 1,440 | 1,000 | 595                            | 44.00               | 551                              | 15.55   |  |
| Voltage Upgrade After current operating   | 1,600 | 1,000 | 718                            | 61.28               | 657                              |   | 106.20   |
|   | 1,600 | 800   | 650                            | 70.65               | 580                              | 20.68   |  |
| 2,000                                     | 1,000 | 785   | 72.4                           | 713                 |                                  | 112.93  |  |

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Table V

Equivalent Uniform Annual Benefit From  
Secondary Sales Due to Voltage Upgrade

(\$ Million 1978)

| <u>Upgrade<br/>Benefit</u>     | <u>Without Current Upgrade</u>                             |             | <u>After Current Upgrade</u>                               |             |
|--------------------------------|--|-------------|--|-------------|
|                                | <u>From + 400 KV @ 1,440 MW<br/>to + 500 KV @ 1,300 MW</u> |             | <u>From + 400 KV @ 1,600 MW<br/>to + 500 KV @ 2,000 MW</u> |             |
|                                | <u>Benefit</u>   | <u>B/C*</u> | <u>Benefit</u>   | <u>B/C*</u> |
| Improved efficiency <u>1/</u>  | 3.41   | 0.45        | 4.53   | 0.51        |
| Increased sec. sales <u>2/</u> | <u>12.48</u>   | <u>1.41</u> | <u>12.91</u>   | <u>1.46</u> |
|                                | 15.89  | 1.80        | 17.44  | 1.97        |

\*Based on annual cost of \$8.84 million for voltage upgrade (cost of current upgrade not included).

1/ At initial scheduled operating level.

2/ Over upgrade.

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IV.3. Capacity Transactions on the Upgraded D-C Intertie

If the voltage upgrade could be implemented in 1984, prior to 1987 termination of existing firm peak/energy exchange contracts between the Pacific Northwest and Pacific Southwest, benefits from transmission loss reduction would accrue from these firm transactions as well as from secondary transactions. These additional benefits are estimated to be \$2 million per year. It is unclear at this time from an environmental and capability point of view if, and what type of capacity transactions are feasible on the d-c Intertie beyond 1987.

For the estimated 1989 condition of Pacific Northwest loads and resources, Table V shows that benefits from secondary sales alone justify a voltage upgrade, even at a very low average utilization of the line. The duration curves of Figure 7 shows the average utilization of the d-c line upgraded to 1,300 MW to be less than 40 percent. This provides opportunity for additional potential use of the d-c line for transactions such as diversity capacity exchange or PNW capacity sales with offpeak energy return. Although no transactions beyond those covered by existing contracts are proposed at this time,

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benefits of voltage upgrade from one such transaction were evaluated for this study because of the potentially large dollar savings that could result from deferring peaking resources. The transaction evaluated was capacity sales with offpeak energy return.

Figure 3 shows the duration curves for the d-c line loading for the case studied. Energy is assumed to be exported from the Pacific Northwest 10 hours per day, 5 days per week over peakload hours and imported to the Northwest at a lesser rate 14 hours per day, 5 days a week over light-load hours plus 24 hours per day 2 days a week. This transaction results in no net increase in exported energy over the secondary only case.

A portion of these transactions is time coincident with some of the secondary transactions depicted in Figure 7. Those transactions not time coincident with secondary sales are shown to the right of the secondary sale duration curve on Figure 8. Added benefits from this capacity transaction are given in Table VI. In calculating benefits from capacity sales, it was assumed that the Pacific Southwest capacity resource deferral resulting from Pacific Northwest firm capacity sales is worth \$32/kW-yr.

Table VI

Equivalent Uniform Annual Potential Benefits from  
Capacity Sales Due to Voltage Upgrade

(\$ Million 1973)

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| <u>Upgrade Benefit</u>        | <u>Without Current Upgrade</u>                     |      | <u>After Current Upgrade</u>                       |      |
|-------------------------------|--|------|--|------|
|                               | From + 400 KV @ 1,440 MW<br>to + 500 KV @ 1,800 MW | B/C* | From + 400 KV @ 1,600 MW<br>to + 500 KV @ 2,000 MW | B/C* |
| Improved efficiency <u>1/</u> | 2.15   | 0.24 | 2.68   | 0.30 |
| Capacity sales <u>2/</u>      | 8.98   | 1.02 | 9.68   | 1.10 |
|                               | 11.13  | 1.26 | 12.36  | 1.40 |

\*Based on annual cost of \$3.34 million for voltage upgrade (cost of current upgrade not included).

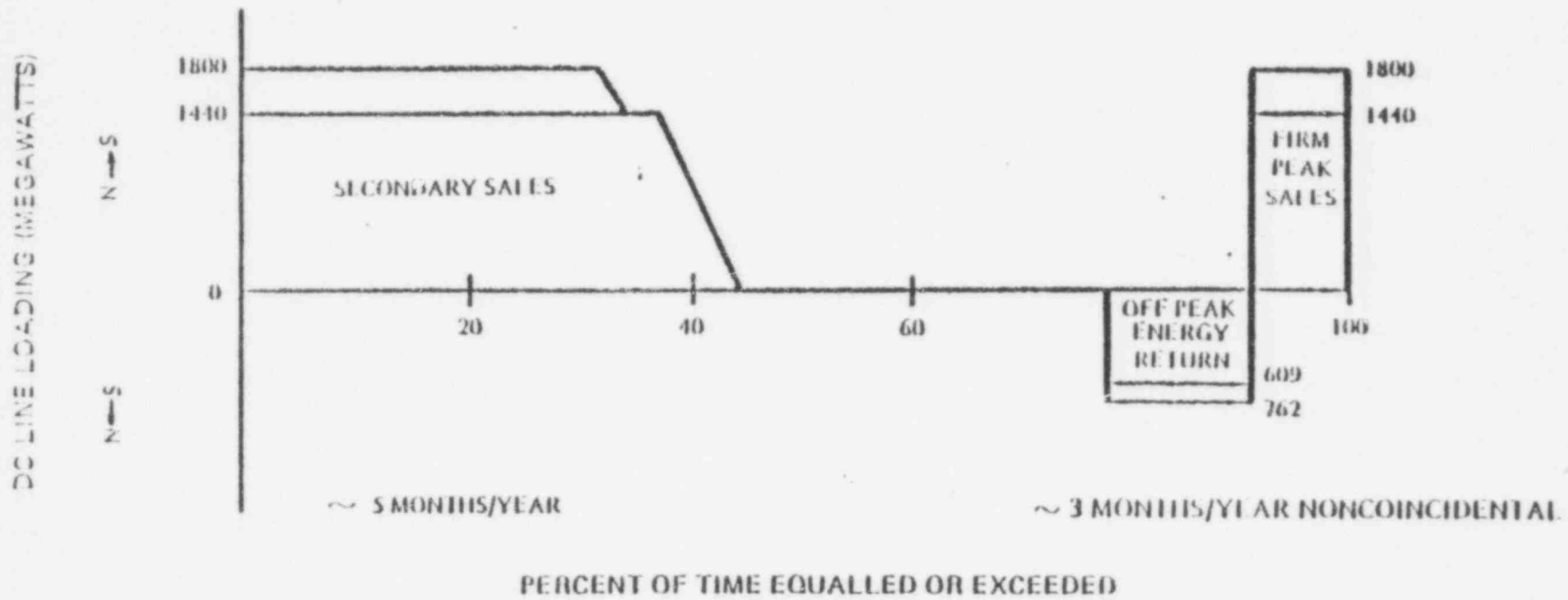
1/ At initial scheduled operating level.

2/ Over upgrade.

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Figure 8

DC INTERTIE LOADING WITH 4 MONTH CAPACITY SALE



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Dollar benefits of this assumed capacity sale with the voltage upgrade amount to \$11.1 billion. Adding these benefits to the secondary sales benefits increases total annual benefits from \$15.9 million to \$27 million.

#### IV.4. Impact on Benefits of Load/Resource Imbalance in the Northwest

Pacific Northwest planners have recognized the possibility of plant delay and load growth developments which could result in future Pacific Northwest firm energy deficits. Such firm deficits would affect availability of Pacific Northwest secondary energy for export to the Pacific Southwest. The resulting economic impact on the two principal voltage upgrade benefits studied herein has been estimated and is shown in Figures 9 and 10.

Figures 9 and 10 show duration (or probability) curves of the number of years (payout time) after voltage upgrade, required for the present worth of secondary sales net benefits to equal \$76.24 million, the estimated upgrade cost. Duration curves have been shown because the magnitude of secondary sales is a random variable (not predictable from year to year due to variable streamflow); therefore, payout time is a random variable. Statistical data for water conditions in the Northwest for the last 99 years were used to develop these curves.

Figure 9 contains duration curves of payout time assuming Pacific Northwest balanced firm load/resource conditions and assuming a 15 mill/kWh difference between PNW and PSW average variable production costs. The solid-line duration curve results from an additional assumption that the voltage upgrade would be completed by May, 1984 to provide 3 years of improved transmission efficiency prior to termination of existing peak/energy firm transactions. The dashed-line duration curve results without this assumption.

This dashed-line duration curve shows, for example, that there is a 50 percent chance (median) that the time for secondary sales net benefits to equal voltage upgrade cost is about 3 to 6 years. The curve also shows that there is only a 10 percent chance that payout time would exceed about 3 to 9 years.

Figure 10 shows similar duration curves assuming voltage upgrade improves peak/energy transactions for 3 years. Curves are shown for assumed continuous annual PNW firm deficits of 0, 1000, and 2000 MW and assumed differences between PNW and PSW variable production costs of 8, 12, and 16 mills/kWh.

The top most curve on figure 1 shows that median payout time is about 19 years if the PNW were to be 2000 MW firm deficit continuously in the future, and if the difference between PNW

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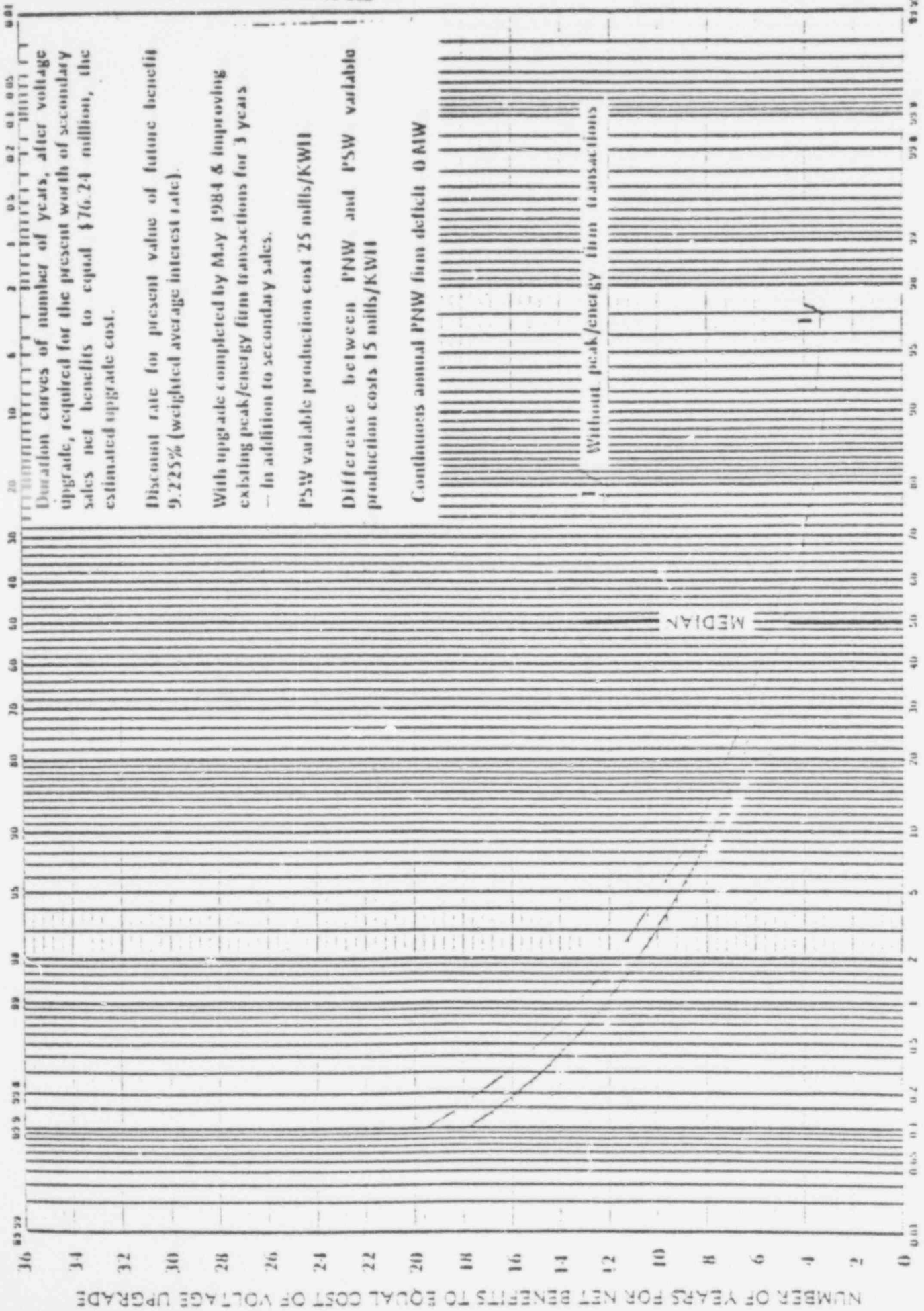
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FIGURE 9



Duration curves for the present worth of secondary upgrade, required for the present worth of secondary sales net benefits to equal \$76.24 million, the estimated upgrade cost.

Discount rate for present value of future benefit 9.225% (weighted average interest rate).

With upgrade completed by May 1984 & improving existing peak/energy firm transactions for 3 years -- In addition to secondary sales.

PSW variable production cost 25 mills/KWH

Difference between PNW and PSW variable production costs 15 mills/KWH

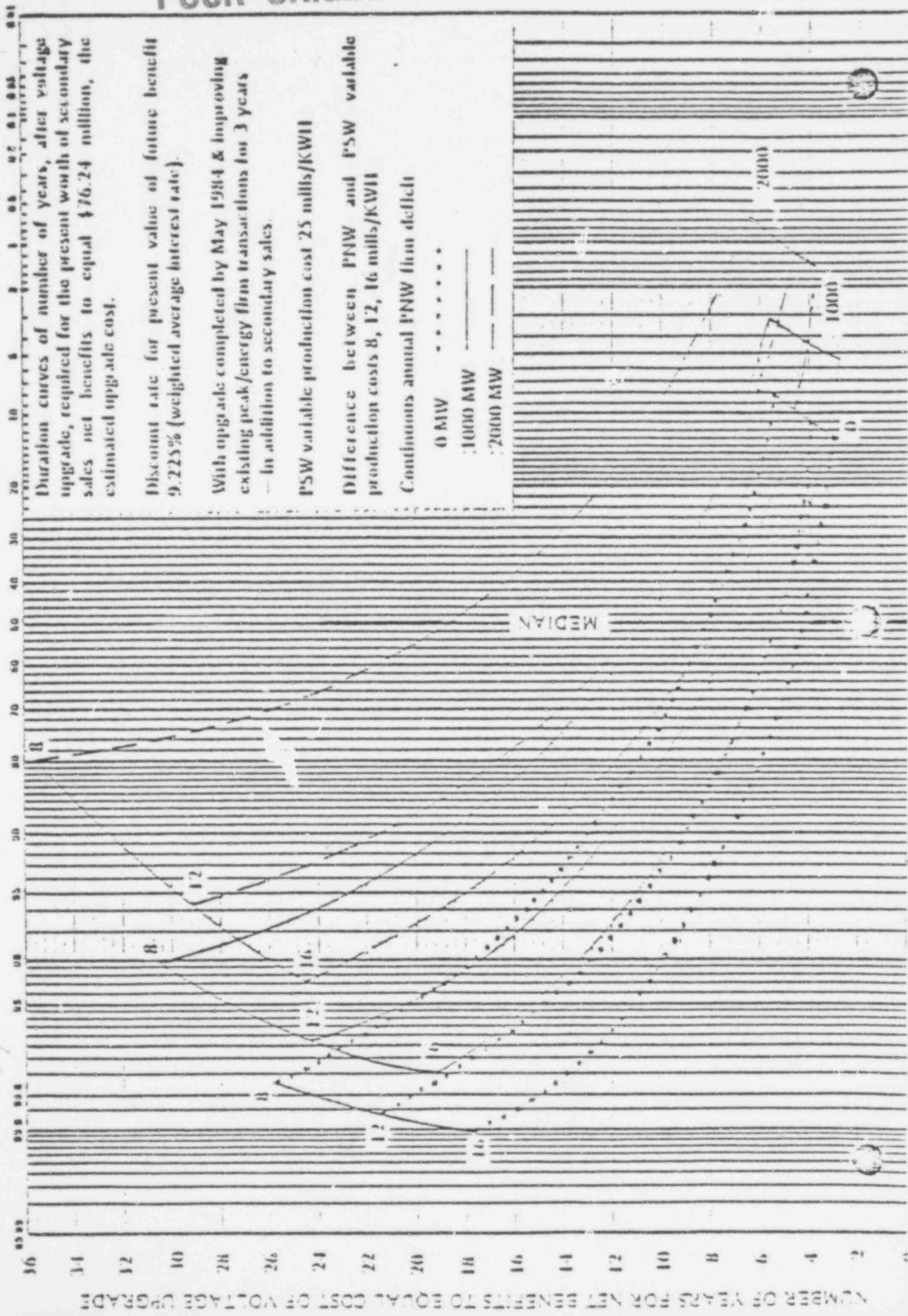
Continuous annual PNW firm deficit 0 MW

Without peak/energy firm transactions

MEDIAN

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FIGURE 10



Duration curves of number of years, after voltage upgrade, required for the present worth of secondary sales net benefits to equal \$76.24 million, the estimated upgrade cost.

Discount rate for present value of future benefit 9.225% (weighted average interest rate).

With upgrade completed by May 1984 & improving existing peak/energy firm transactions for 3 years — In addition to secondary sales.

PSW variable production cost 25 mills/KWH

Difference between PNW and PSW variable production costs 8, 12, 16 mills/KWH

Continuous annual PNW firm deficit

0 MW .....  
 1000 MW ———  
 2000 MW - - - - -

MEDIAN

and PSW variable production costs were 8 mills/kWh every year. The bottom most curve (dotted line) on the figure is like the solid line curve on figure 9 except that the variable production cost difference is 16 mills/kWh on figure 10 compared to 15 mills/kWh on figure 9.

Because of rising costs of Pacific Northwest baseload thermal resources, studies are being made of future PNW resource mixes containing low capital cost, high operating cost resources such as combustion turbines. No conclusions have resulted from these studies. However, either firm deficits or high operating cost resources receiving displacement preference would decrease availability of PNW surplus power for export to the Pacific Southwest. For the duration curves on figure 10, a PNW firm load/resource balance with a resource mix including 2000 MW of high operating cost resources receiving displacement preference would be equivalent to a 2000 MW firm deficit.

A matter not factored into this study is the potential for additional electric energy from Canada. Substantial quantities of surplus energy have been available from British Columbia in recent years. The "Study of Opportunities for Expanded Canada-United States Exchanges of Electricity" indicates such sales likely will continue and could significantly expand in the 1990s. Additional resource development in Canada and increased transmission capability between British Columbia and Alberta would present opportunities for beneficial power transactions among Canadian, PNW, and PSW utilities, further enhancing the feasibility of the d-c upgrade.

In summary, while all future potential transactions cannot be evaluated definitively, it is expected that the investment requirement to upgrade the d-c line to  $\pm 500$  kV will be recovered within less than a decade. The upgrade will be beneficial for the utilities of the PNW and PSW and will help reduce the Nation's dependence on foreign oil.

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## V. ENVIRONMENTAL CONSIDERATIONS

From an environmental standpoint, there are two aspects to this project that need to be evaluated:

The first relates to the actual construction and operations of the transmission facilities. The proposed upgrading requires no new right-of-way. The only direct physical manifestation of the upgrading involves some modifications and additions at the Celilo Converter Station near The Dalles, Oregon, and at the Sylmar Converter Station near Los Angeles, California. It is very unlikely that these changes would be considered to have a significant impact on the overall environment of these terminals.

The voltage upgrade changes the performance of the line with reference to a number of factors that have environmental impacts. In the determination of acceptable voltage increase, special consideration has been given to environmentally sensitive areas such as audible noise, radio and television interference levels, and electric field strength. Voltage upgrade would raise these levels, but it is believed that restricting the voltage increase to +500 kV would keep these levels still within acceptable limits. In recent times, ground level electric field strengths have received special attention because of unpleasant human reactions at high perception levels and unknowns with regard to long-term biological effects. Although ground level electric field strengths would be increased as a result of upgrading, they are expected to still be well below the minimum perception level. As determined in a preliminary environmental assessment, there is no apparent evidence indicating that the electric fields experienced under the upgraded d-c line would result in any long-term biological effects.

The second area of environmental concern relates to the change in the operation of the Federal Columbia River Power System to utilize the additional transmission capacity of the upgraded d-c Intertie. In reviewing the environmental impacts associated with these rather small additional energy sales, it is unclear now whether an environmental statement will be required. An environmental assessment to evaluate the significance of potential impacts will be required before proceeding with the construction phase of the proposed project. Consultation with appropriate agencies and individuals will continue to analyze and quantify the impacts of the proposed action and appropriate alternatives.

There are differences in the regulatory requirements with regard to the environmental impact assessment process for this proposal. With respect to the Northern portion of the project, EPA is under the provisions of the National Environmental Policy Act (NEPA). The Southern portion of the project will

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in addition be required to comply with the California Environmental Quality Act of 1970 (CEQA). To comply with CEQA a determination will have to be made as to who is the lead agency. If the lead agency is determined to be LADWP, LADWP will prepare the necessary environmental documents in accordance with CEQA, consulting with the California Public Utilities Commission (PUC) and others as required.

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## VI. PROJECT SCHEDULES

A project schedule based on energizing the upgraded system by May 1984 is shown in Figure 10. This schedule would require concurrence of involved utilities to proceed with the project by the end of February 1979.

This project schedule is based on the assumption that the final conclusion of the environmental impact assessment could be accommodated within the given time frame. However, due to uncertainties of environmental impact assessment process for the southern portion of the system, it is difficult to make an accurate judgment of the time requirements.

There are two options for implementing the project: 1) on the basis of a "turnkey contract", or 2) by purchasing component parts. These options will be explored further. In either case, it would be necessary to coordinate closely the activities of the northern and southern part in the areas of system studies, specifications, contract award, installation schedules, outages and testing. Taking into account the need for this close coordination, proposed project management is shown in Figure 11. Responsibilities of the steering committee, project coordinator and the project managers remain to be more clearly defined.

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PROJECT SCHEDULE FOR DC INTERTIE UPGRADING

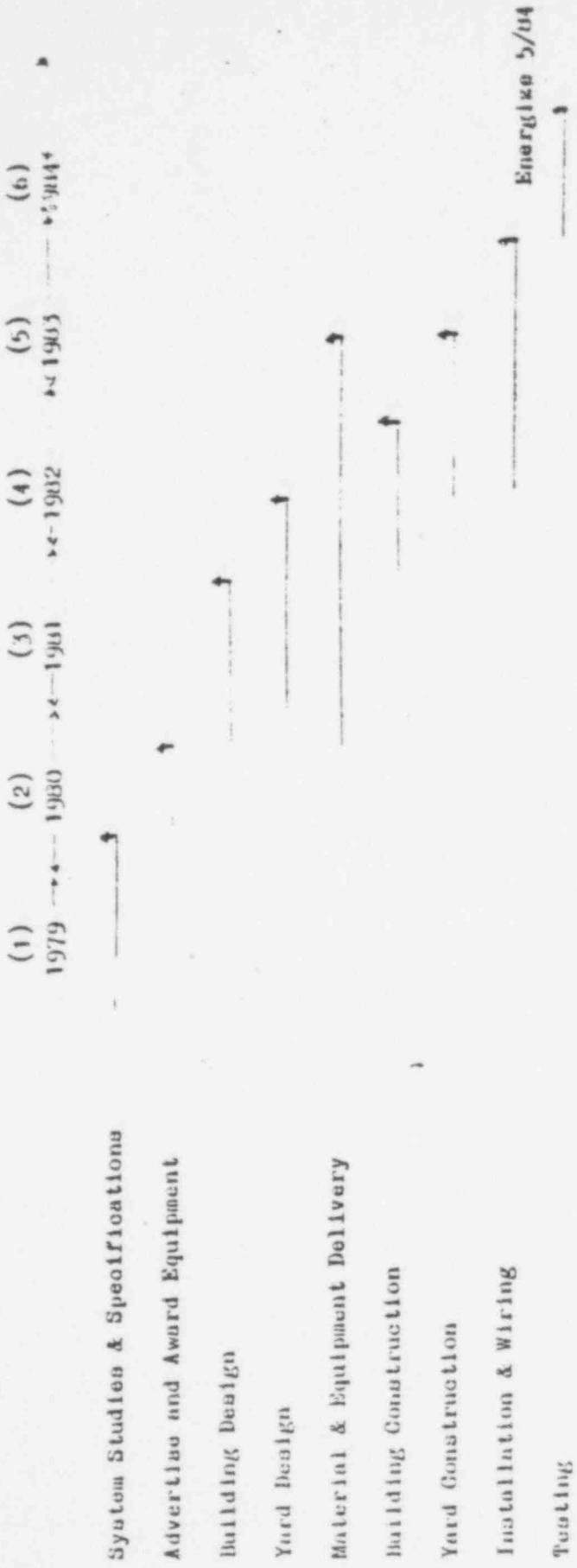


FIG. 10

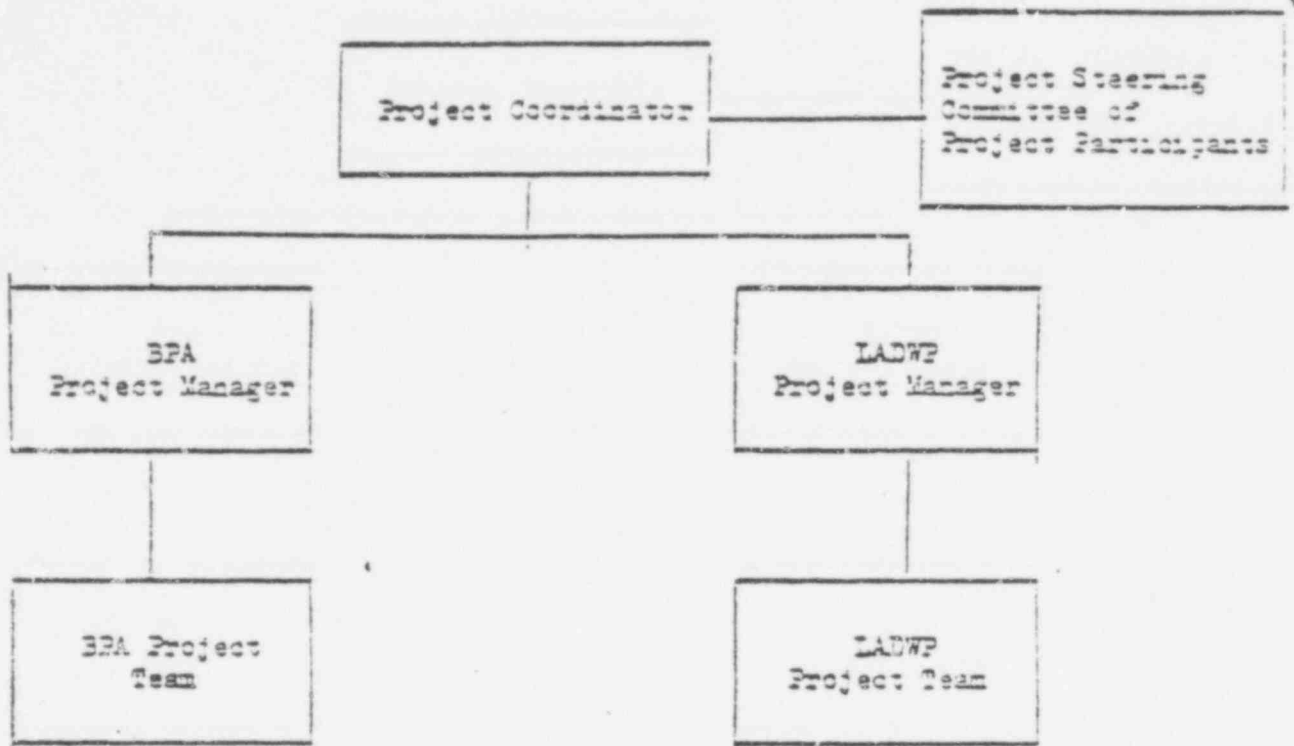


Fig. 11

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Department of Energy  
Bonneville Power Administration  
P.O. Box 3621  
Portland, Oregon 97208

OFFICE OF THE ADMINISTRATOR

APR 23 1979

In reply refer to: P

RECEIVED

APR 26 1979

WM. R. GOULD

Mr. William R. Gould, President  
Southern California Edison Company  
P.O. Box 800  
Rosemead, California 91770

Dear Mr. Gould:

With our letter of February 16, 1979, we sent you a copy of the report prepared by the two Pacific Northwest-Pacific Southwest task forces established to study the economic and technical feasibility of upgrading the existing d-c intertie line. It indicated a benefit-cost ratio of 1.8 to 1 from savings in losses and additional surplus energy transactions. Other potential transactions such as diversity capacity exchanges, reserves pooling, or seasonal capacity sales could significantly improve the already favorable benefit-cost ratio indicated.

Our staff is prepared to work with yours this summer and fall to identify additional or alternative firm transactions on existing interties, including the upgraded d-c line, as well as to analyze feasibility of additional intertie lines.

We propose that owners of the d-c line plan their respective budgets and proceed soon with the joint detailed terminal designs and specifications so that upgrading the Celilo-Sylmar d-c facilities can be completed by May 1984. If you agree, please let us know the member of your staff whom our engineers should contact to pursue the terminal designs and specifications.

Sincerely,

Administrator

Enclosure:  
Distribution List

Identical Letters to Addressees Indicated Below, Subj: Upgrading the  
Celilo-Sylmar D-C Facilities

Addressees:

Mr. James L. Mulloy, Chief Elec. Engr. & Asst. Mgr., LA Dept. of Water & Power  
Mr. William R. Gould, Southern California Edison Company, Rosemead, Ca.  
Mr. William H. Fell, General Manager & Chief Engineer, City of Glendale  
Mr. Karl A. Johnson, General Manager, City of Pasadena  
Mr. Ronald O. Snyder, General Manager, City of Burbank

cc:

Mr. John F. Bonner, Pacific Gas and Electric Company, San Francisco, Ca.  
Mr. Robert E. Morris, President & Chief Exec. Officer, San Diego Gas  
and Electric Company  
Mr. Gordon W. Hoyt, Utility Director, City of Anaheim  
Mr. Everett C. Ross, Public Utilities Director, City of Riverside  
Mr. Ronald B. Robie, Director of Water Resources, Resources Agency of  
California, Sacramento  
Mr. Gordon R. Estes, Area Manager, Western Area Power Administration, Sacramento  
  
Mr. Don C. Frisbee, President & Chairman of the Board, Pacific Power &  
Light Company, Portland, Or.  
Mr. Robert H. Short, President, Portland General Electric Company, Portland  
Mr. John W. ... President, Puget Sound Power & Light Company, Bellevue, Wa.  
Mr. Wendell J. Satre, President and Chairman of the Board, The Washington  
Water Power Company, Spokane, Wa.  
Mr. J. A. McElwain, President and Chairman of the Board, The Montana Power  
Company, Butte, Mt.  
Mr. E. Allen Hunter, President and Chief Executive Officer, Utah Power  
& Light Company, Salt Lake City, Utah  
Mr. Albert Carlsen, Chief Executive Officer and Chairman of the Board,  
Idaho Power Company, Boise, Idaho  
  
Mr. Robert L. McKinney, General Manager, Cowlitz County PUD #1, Longview, Wa.  
Mr. Fred W. Lieberg, Manager, Douglas County PUD #1, E. Wenatchee, Wa.  
Mr. Larry D. Peterson, Manager, Grant County PUD #2, Ephrata, Wa.  
Mr. Joe Recchi, Acting Supt. of Lighting, Seattle City Light  
Mr. Paul J. Nolan, Director of Utilities, Tacoma City Light  
Mr. Howard C. Elmore, Manager, Chelan County PUD, Wenatchee, Wa.  
Mr. Robert B. Gallup, Manager, RW Beck & Associates, Seattle, Wa.  
Mr. Keith Parks, General Manager, Eugene Water & Elec. Board, Eugene, Or.  
  
Mr. James M. Boldt, Exec. Director, Washington PUD Association, Seattle, Wa.  
Brig. Gen. Richard M. Wells, Corps of Engineers, Portland, Or.  
Mr. Robert M. Greening, Jr., Manager, Public Power Council, Vancouver, Wa.

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APPENDIX I

Engineering Task Force for Upgrading the Pacific D-C Interline

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(Coordinated by John Rogacs with  
Gary Langewisch on Power Supply  
Task Force)

Harold M. Mozer  
Public Power Council  
c/o CH2M-Hill  
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Principal Electrical Engineer  
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213 572-1212

Don Martin  
Pacific Power and Light Company  
920 SW. Sixth Avenue  
Portland, OR 97204  
503 243-4388

Rod Baishiki  
Pacific Gas & Electric Company  
77 Beale Street  
San Francisco, CA 94106  
415 781-4211 Ext. 1160

Norman P. Ingraham  
Northern California Power Agency  
770 Kiely Boulevard  
Santa Clara, CA 95051  
408 248-3422

Don Campbell  
Chief Utilities Engineer  
City of Riverside  
3900 Main Street  
Riverside, CA 92522

Power Supply Test Home for Upgrading the Pacific D-C Interline

Clifford H. Watkins, Chairman  
Sunnyside Water Administration - 28  
P.O. Box 3621  
Portland, OR 97208  
(503) 234-2361, Ext. 4451

Gary R. Langewiesch  
L.A. Dept. of Water & Power  
Room 1148  
111 North Hope Street  
Los Angeles, CA 90051  
(213) 461-6519

Harold H. Moser  
Public Power Council  
c/o CH2M-Hill  
1500 - 114th Avenue SE  
Bellevue, WA 98004  
(206) 453-5000

Jerry Lohr  
Pasadena Water and Power Company  
100 North Garfield  
Pasadena, CA 91101  
(213) 577-4423

George H. Edwards  
City of Anaheim  
Electric Utilities  
P.O. Box 3222  
Anaheim, CA 92803  
(714) 533-5405

Barry Flynn  
Electrical Supervisor  
City of Santa Clara  
1500 Warburton  
Santa Clara, CA 95050  
(408) 984-3161

E. H. Tanna, ICS  
Intercompany Pool  
P.O. Box 3727  
Spokane, WA 99208  
(509) 439-0500 Ext. 463

Ron Wunnally, Supv. Planning Engineer  
Southern California Edison  
2244 Walnut Grove Avenue  
P.O. Box 300  
Rosemead, CA 91770  
(213) 371-3074

POOR ORIGINAL

Donald J. Caha  
Tacoma City Light  
P.O. Box 11007  
Tacoma, WA 98411  
8-390-6111 (360-2471)  
Ext. 324

Ronald O. Snyder  
General Manager  
Public Services Department  
City of Burbank  
Burbank, CA 91510  
(213) 847-8600

Richard L. Young  
City of Glendale  
119 N. Glendale Ave.  
Glendale, CA 91209  
(213) 956-4851

W. C. (Bud) Lester  
Pacific Gas and Electric Co.  
77 Beale Street  
San Francisco, CA 94106  
(415) 781-4211

Mr. Donald Martin  
Pacific Power & Light Co.  
920 SW Sixth Avenue  
Portland, OR 97204  
(503) 243-1122

Mr. Phillip Michaels  
Northern California Power Agency  
770 Kieley Boulevard  
Santa Clara, CA 95051  
(408) 243-3422

Mr. Jerry Gannon  
Seattle City Light  
1015 - Third Avenue  
Seattle, WA 98104

Mr. Don Campbell  
Chief Utilities Engineer  
City of Riverdale  
3900 Main Street  
Riverdale, CA 92652

May 11, 1979

Mr. Sterling Munro, Administrator  
Bonneville Power Administration  
P. O. Box 3621  
Portland, Oregon 97203

Dear Mr. Munro:

This refers to your letter dated April 23, 1979, concerning upgrading the existing DC line. Edison remains willing to participate in further studies and technical discussions. The Los Angeles Department of Water and Power will be coordinating activities for the California owners of the DC line.

Please feel free to contact Mr. J. Sabath, Chief of Substation Design Engineering, regarding design matters or Mr. C. W. DuBois, Jr., Senior Power Contracts Engineer, regarding additional or alternative transactions on the Pacific Intertie. Edison is pleased to learn from your April 23, 1979 letter that your staff is prepared to work with us this summer and fall to identify additional or alternative firm transactions on the Pacific Intertie.

Also, I would appreciate it if you would address future correspondence to me rather than to Mr. Gould.

Sincerely,

~~Central Office~~  
A. Gould

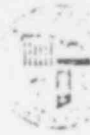
cc: Mr. James L. Mulloy, LADWP  
Mr. Ronald O. Snyder, Burbank  
Mr. William H. Fell, Glendale  
Mr. Karl A. Johnson, Pasadena  
Mr. Nolan H. Daines, PG&E  
Mr. Jack E. Thomas, SDG&E

CWD:jb  
1CWD194.C

bcc: David J. Fogarty  
J. H. Drake  
J. Sabath  
R. L. Mitchell  
C. W. Du Bois, Jr.  
R. D. Nunnally

POOR ORIGINAL

Department of Water and Power



the City of Los Angeles

TOM BRADLEY  
Mayor

Commission  
SARA C. STIVELMAN, *President*  
HERBERT C. WARD, *Vice President*  
RICARDO R. GUTIERREZ  
JOHN L. MALONEY  
PATRICIA C. NAGLE  
JUDITH K. DAVISON, *Secretary*

LOUIS H. WINNARD, *General Manager and Chief Engineer*  
CARL M. TAMAKI, *Assistant General Manager and Chief Engineer*  
PAUL H. LANE, *Chief Engineer of Water Works and Assistant Manager*  
JAMES L. MULLOY, *Chief Electrical Engineer and Assistant Manager*  
WILLIAM D. SACHAU, *Chief Financial Officer*

June 5, 1979

Mr. Sterling Munro  
Bonneville Power Administration  
Department of Energy  
P. O. Box 3621  
Portland, Oregon 97208

POOR ORIGINAL

Dear Mr. Munro:

This is in response to your letter dated April 23, 1979, concerning the Pacific DC Intertie voltage upgrade project.

We have reviewed the "Report on Feasibility of Upgrading the Pacific DC Intertie to +500 kv" and believe that the conclusions reached in the report are generally valid and there are economic and operational benefits to be derived from the project. Based primarily on the potential economic benefits, we plan to pursue and investigate the project in a two-phase approach. The first phase (Phase I) is to consist of the following:

1. Performing the environmental assessment and completing the California Environmental Quality Act (CEQA) requirements;
2. Performing necessary technical studies and preparation of specifications for the Sylmar Converter Station; and
3. Performing technical studies and preparation of specifications for the southern portion of the transmission line.

Phase I will take the project to the point of having specifications ready to advertise and is estimated to require approximately 16 months to complete. It should be noted that the estimated time required for technical studies and specifications is more than the time shown for this item in the Project Schedule in the Feasibility Report. This could potentially delay the completion date for the project. Under terms of the Pacific Intertie DC Transmission Facilities Agreements between the Southern California participants, we have asked that the cost of the work to be done in Phase I be shared by the participants. We anticipate that the Phase I work

Water and Power Conservation... a way of life

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Mr. Sterling Munro

- 2 -

June 5, 1979

will begin in July 1979. Please contact Mr. David J. Melvold, (213) 481-4766, for any questions concerning terminal designs and specifications.

The second phase (Phase II) would include making the final commitment to go ahead with the project. Assuming that the project is still shown to be economically viable at the completion of Phase I, Phase II would be progressed and would be dependent upon the following conditions:

1. Completion and approval of the CEQA process and satisfactory results from all of the necessary technical studies in Phase I;
2. That contractual agreement between Southern California entities and with BPA on participation and cost responsibilities in the upgrade project be reached; and
3. That credit be given for the Department's contractual obligation of exchange energy to BPA during the DC Intertie outages required for the proposed voltage upgrade.

we would be glad to discuss this approach to the project with you and to begin identifying additional or alternative firm transactions on existing interties, including the upgraded DC Line, as proposed in your letter. Additionally, we believe that now is the appropriate time to begin discussing how the DC Intertie will be used after the expiration of our present Exchange Agreement in 1986. Mr. Norman E. Nichols, Engineer of Power Supply Planning and Contracts, will be the person to contact regarding these discussions. Mr. Nichols' telephone number is (213) 481-5296.

Sincerely,

ORIGINAL SIGNED  
JAMES L. MULLOY

JAMES L. MULLOY  
Chief Electrical Engineer  
and Assistant Manager

cc: Messrs. A. Arenal  
Southern California Edison  
William H. Fell  
City of Glendale  
R. O. Snyder  
City of Burbank  
Karl A. Johnson  
City of Pasadena  
David J. Melvold  
Norman E. Nichols

POOR ORIGINAL

609 104



June 29, 1979

Mr. James L. Mulloy  
 Chief Electrical Engineer and  
 Assistant Manager  
 Department of Water and Power  
 City of Los Angeles  
 Box 111  
 Los Angeles, California 90051

Dear Mr. Mulloy:

This refers to your letter of June 5, 1979, to the Southern California participants in the DC line concerning increasing the voltage of the DC line from  $\pm 400$  kV to  $\pm 500$  kV and seeking Edison's approval of a two-phase approach to investigate such a voltage upgrade project.

It is understood the first phase would include; (i) the completion of CEQA requirements, and (ii) completion of technical studies and preparation of specifications relative to Sylmar and the southern portion of the line. It is further understood that the Department estimates this first phase would cost \$400,000 and require about 16 months to complete. It is also understood that the second phase would include making the final commitment to proceed with the voltage upgrade assuming the results of the first phase justified such action. Edison concurs with the Department's suggested two-phase approach and assumes the first phase would also include an updated assessment of the potential benefits to be derived from the proposed voltage increase and a review of the costs involved.

Pursuant to the terms of the City-Edison DC Transmission Facilities Agreement, Edison approves the first phase of the voltage upgrade project as described herein at an estimated cost of \$400,000 and agrees to pay its \$200,000 share of such expenditures.

Sincerely,

cc: William H. Fell, City of Glendale  
 R. G. Snyder, City of Burbank  
 Karl A. Johnson, City of Pasadena

POOR ORIGINAL



CWD:gm  
1CWD750.c

bcc: J. Sabath  
W. R. Schmus

POOR ORIGINAL

JUN 17 1979

LAW OFFICES  
**SPIEGEL & McDIARMID**  
 2600 VIRGINIA AVENUE, N.W.  
 WASHINGTON, D.C. 20037  
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 THOMAS C. TRAUGER  
 JOHN MICHAEL ADRAGNA  
 CYNTHIA S. BOGORAD  
 (MASSACHUSETTS BAR ONLY)  
 GARY J. NEWELL  
 MARC R. POIRIER

GEOR SPIEGEL  
 ROBERT C. McDIARMID  
 SANDRA J. STREBEL  
 ROBERT A. JABLON  
 JAMES N. HORWOOD  
 ALAN J. ROTH  
 FRANCES E. FRANCIS  
 DANIEL I. DAVIDSON  
 THOMAS N. MCHUGH, JR.  
 DANIEL J. GUTTMAN  
 PETER K. MATT  
 DAVID R. STRAUS

June 11, 1979

John R. Bury, Esq.  
 General Counsel  
 Southern California Edison Company  
 2244 Walnut Grove Avenue  
 P.O. Box 800  
 Rosemead, California 91770

POOR ORIGINAL

Re: Request by Azusa, Banning and  
 Colton, California for IOA  
 Proposals.

Dear John:

On behalf of the Cities of Azusa, Banning and Colton, California, I renew my request of October 5, 1978, that Southern California Edison Company prepare and forward to me, with copies to the City officials noted below, drafts of suitable Integrated Operations Agreements. Each of the Cities desires to come to a definitive agreement with Edison in accordance with the provisions of the 1972 Settlement Agreement for integrated operation of resources.

In response to my letter of October 5, 1978, Mr. Robert L. Myers of Edison, wrote to each of the Cities by letter dated October 31, 1978 suggesting that Edison would prefer to address each of the Cities' request for an integrated operations agreement after Federal Energy Regulatory Commission acceptance was received for the integrated operations agreements between the Cities of Anaheim and Riverside and Edison. In that letter Mr. Myers indicated that Edison expected to enter into similar or identical forms of agreement with each of the Cities as it had entered into with Anaheim and Riverside. By letter dated June 7, 1979, the Secretary of the Federal Energy Regulatory Commission wrote to Mr. Ronald Daniels of Southern California Edison Company, informing him of the Commission's acceptance of the Integrated Operations Agreement with the Cities of Anaheim and Riverside. Therefore, it is now time to take the necessary steps to enter into agreements with the other Cities.

June 11, 1979

I would appreciate it if you would forward a draft of the proposed agreements for each of the Cities to myself, and to Mr. Hugh Gerharz of Azusa, Mr. Stephen V. Julian of Banning and Thomas J. Calabrese of Colton. We will immediately review those agreements and return them to you with our comments.

If you have any questions or wish to discuss this matter, please do not hesitate to contact me.

Sincerely,



George Spiegel

cc: Mr. Hugh Gerharz  
Mr. Stephen V. Julian  
Mr. Gordon Hoyt  
Mr. Everett Ross  
Robert L. Myers, Esq.

GS:jbs

POOR ORIGINAL

609. 108

**SE**

*Southern California Edison Company*

P. O. BOX 800  
2244 WALNUT GROVE AVENUE  
ROSEMEAD, CALIFORNIA 91770

ROBERT L. MYERS  
MANAGER OF RESALE AND SPECIAL SERVICES

TELEPHONE  
(213) 572-1975

June 28, 1979

D. E. SPARKS  
SUPERVISOR OF SPECIAL SERVICES

TELEPHONE  
(213) 572-2019

Mr. Hugh Gerharz  
Light Superintendent  
City of Azusa  
777 North Alameda Avenue  
Azusa, California 91702

Mr. Stephen B. Julian  
City Manager  
City of Banning  
P. O. Box 998  
Banning, California 92220

Mr. Thomas J. Calabrese  
City Manager  
City of Colton  
650 North LaCadena Drive  
Colton, California 92324

Gentlemen:

Re: Request by Azusa, Banning, and Colton,  
California, for I.O.A. Proposals

This is in response to Mr. Spiegel's letter dated June 11, 1979 to Edison's general counsel, Mr. Bury, which is a renewal of the October 5, 1978 request that Edison prepare drafts of suitable integrated operations agreements for the Cities of Azusa, Banning, and Colton. In our October 31, 1978 response to the October 5 letter we explained that Edison would prefer to proceed with negotiations of integrated operations agreements for Azusa, Banning, and Colton after the Anaheim and Riverside agreements were accepted for filing by FERC.

The Anaheim and Riverside I.O.A.'s have now been accepted for filing and Edison is prepared to proceed with negotiations for similar agreements with Azusa, Banning, and

Messrs. Gerhart  
Julian  
Calabrese

-2-

June 28, 1979

Colton. We do not, however, believe it is appropriate for Edison to provide the initial drafts of these agreements as requested in Mr. Spiegel's June 11, 1979 letter.


As explained in our October 31, 1978 response to the October 5, 1978 letter, the Anaheim and Riverside agreements are lengthy, detailed, and the product of over five years of negotiations. While Edison expects to enter into substantially the same form of agreement with each of the Cities of Azusa, Banning, and Colton, we believe that it should be the responsibility of each of said cities to review the Anaheim and Riverside agreements and determine if any characteristic of its system would dictate that changes be made in the form of the agreement. Following such review, each city should advise Edison of any changes which it believes are necessary or if any provisions of said agreements should not be made applicable to such city.

Toward that end, we enclosed with our October 31, 1978 letter, for the use of each city, a copy of the Anaheim agreement as amended (the Anaheim and Riverside agreements being identical except for city designation).

To this date we have received no comments, suggestions, or proposals from any of the three cities. Therefore, it is again requested that the Anaheim agreement be reviewed by each city and that each city then advise Edison of any changes, additions, or deletions which it believes to be necessary due to some system characteristic which would make the Anaheim form of agreement inappropriate for its utility.

When responses to the above request have been received and reviewed, Edison will then be prepared to proceed with negotiations as appropriate.

Very truly yours,

  
ROBERT L. MYERS

cc: John Dangleis, City Administrator, City of Azusa  
George Spiegel, Spiegel & McDiarmid

609 110

JUL 25 1979

LAW OFFICES  
 SPIEGEL & McDIARMID  
 2600 VIRGINIA AVENUE, N.W.  
 WASHINGTON, D.C. 20037  
 TELEPHONE (202) 333-4500  
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Law Department

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 ROBERT C. McDIARMID  
 SANDRA J. STREBEL  
 ROBERT A. JABLON  
 JAMES N. HORWOOD  
 ALAN J. ROTH  
 FRANCES E. FRANCIS  
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 THOMAS N. MCHUGH, JR.  
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 JOHN MICHAEL ADRAGNA  
 CYNTHIA S. BOGORAD  
 (MASSACHUSETTS BAR ONLY)  
 GARY J. NEWELL  
 MARC R. POIRIER

July 20, 1979

John R. Bury, Esq.  
 General Counsel  
 Southern California Edison Company  
 P. O. Box 800  
 Rosemead, California 91770

Re: Azusa, Banning and Colton - Integrated Operations Agreement

Dear John:

I have been awaiting a direct response from you to my letter of June 11, 1979 in accordance with usual customs among attorneys in private practice, with which you, as a career house counsel, may not be familiar.

Mr. Robert L. Myers, Edison's Manager of Resale and Special Services, however, has written, on June 28, 1979, directly to my clients, what he evidently considers a response to my letter to you. Fortunately he sent me a copy.

It is not clear to me that you intended Mr. Myers' letter to my clients to be a response to my letter to you. I have been designated by these clients to handle their negotiations of the complex matter of integrated operations agreements between Edison and the Cities of Azusa, Banning and Colton. Accordingly, if it be your desire that I deal directly with Mr. Robert L. Myers to negotiate these agreements that is agreeable to me. It would be helpful if you would specify his authority to negotiate, i.e., the extent to which any understandings reached with Mr. Myers would be considered binding on any other members of Edison's staff or any particular level of Edison's organization. As I recall from the 5 years of negotiating the IOA's with Anaheim and Riverside, Mr. Myers attended most of the sessions but took no significant part in the substantive discussions. Thus, while I like and respect Mr. Myers, I do not want to spend time negotiating with him unless he has authority to speak for and commit Edison on this matter.

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John R. Bury, Esq.

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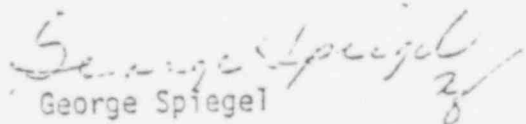
July 20, 1979

Incidentally, as I read his letter, he inaccurately implies that Edison has been waiting since October 31, 1978 for "comments, suggestions, or proposals from any of the three cities." He has overlooked the statement in his letter of October 31, 1978 that "our preference is to proceed with negotiations of integrated operations agreements with you after the Anaheim and Riverside agreements have been accepted for filing." Those were accepted for filing on June 7, 1979.

I would refer you to my letter of December 9, 1976, to David N. Barry, III, then Edison's Assistant General Counsel, that explains how Edison's periodic shifts in position delayed the completion of the negotiations until Edison obtained enormous bargaining power over Anaheim and Riverside because of the pendency of the November 1, 1977 deadline under the 1972 Settlement Agreement. I believe that if Mr. Myers is given sufficient negotiating authority for the Edison staff, these shifts are unlikely to be repeated because Mr. Myers is a very straightforward person (despite the above-noted, uncharacteristic, inaccuracy in his letter of June 28, 1979).

In any event, I am prepared to proceed with the negotiations with Mr. Myers as soon as you are able to inform me of his authority. I would appreciate your prompt response as Edison is the only party which can benefit from delay.

Sincerely,

  
George Spiegel

GS/nzb

cc: Mr. Hugh Gerharz, Azusa  
Mr. Gale Drews, Colton  
Mr. Stephen Julian, Banning

609 112

*Southern California Edison Company*

P.O. BOX 800  
 2244 WALNUT GROVE AVENUE  
 ROSEMEAD, CALIFORNIA 91770

JOHN R. BURY  
 GENERAL COUNSEL

LAW DEPARTMENT

TELEPHONE  
 (213) 572-1904

July 27, 1979

RECEIVED

JUL 31 1979

POWER CONTRACTS

George Spiegel, Esq.  
 Spiegel & McDiarmid  
 2600 Virginia Avenue, N. W.  
 Washington, D. C. 20037

Dear George,

This will acknowledge receipt of your letter of July 20, 1979. I am somewhat perplexed by the tone and content of your letter. You indicate that you have been designated by Azusa, Banning and Colton "to handle their negotiations of the complex matter of integrated operations agreements" between Edison and these Cities. We do not believe the negotiation of integrated operations agreements with these Cities is likely to be complex or difficult, unless it is made so by the Cities. As pointed out in our letter of October 31, 1978 to the Cities, copy of which was sent to you, we would expect to enter into the identical form of agreements with each of the Cities unless the size of a city system or other circumstances dictate that changes be made in the form of the agreement.

The Cities should first determine whether they wish to suggest that changes be made. If the Cities wish to enter into the identical form of agreement, there is nothing further to negotiate. If a City wishes to propose substantive changes in the agreement, the matter may become complex, but that can not be determined until a City indicates to us the changes it wishes to make.

Our October 31, 1978 letter made it clear that the Cities should review the agreements and advise us if they believed that any of the provisions should not be made applicable to them. We expected the Cities to perform

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George Spiegel, Esq.

July 27, 1979  
Page 2

this review while the FERC was processing the Anaheim and Riverside agreements. It would be a misinterpretation of our October 31 letter if the Cities thought they should not lift a finger until the FERC had accepted the Anaheim and Riverside agreements for filing.

In our June 28, 1979 letter, we again suggested that the Cities review the agreements and advise us of any changes they believe are necessary or if they believe that provisions of the agreements should not be made applicable to such Cities. Apparently the Cities have allowed nearly nine months to pass without taking any action to move this matter toward a conclusion.

You may not be aware that Bob Myers has received a letter from Allen V. Jost of Banning dated July 19, 1979, requesting Edison to provide him with copies of the Integrated Operations Agreement, Transmission Agreement, and estimated transmission costs and line loss to assist the City in its review of a possible purchase of fuel replacement energy from Western Area Power Administration beginning June 1979 (sic). Banning chose to withdraw from the negotiations of the original integrated operations agreements, and we anticipate that Banning will be anxious to negotiate such an agreement on a high priority basis.

George, if I have not conformed to usual customs of attorneys in private practice, I offer my apologies to you. Over the years, we have received countless direct contacts from representatives of our resale customers, notwithstanding your involvement in certain of their affairs and the pendency of litigation. We thought that both sides had an understanding that a certain informality and flexibility concerning contacts would be continued and I was acting on that understanding when I suggested that Bob Myers pick things up where they had been left before.

With respect to the naming of representatives of Edison to deal with these matters, Edison will use the same approach as it did in the negotiation of the original agreements with Anaheim and Riverside. Negotiations

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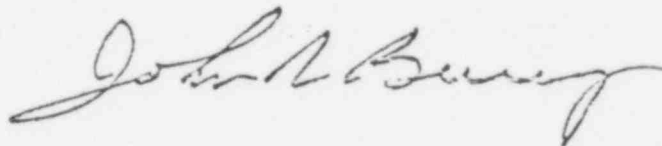
George Spiegel, Esq.

July 27, 1979  
Page 3

will be conducted by a team comprised of personnel from Power Contracts, Resale and Special Services and the Law Department. David Barry has overall responsibility for the Law Department in this matter and we expect Gene Wagner to participate in such negotiation as may be required. Please feel free for you or your staff to contact them directly if this will expedite matters.

Pending a response from you or the Cities, we will proceed on the expectation that consummation of the additional integrated operations agreements can be concluded promptly. We are prepared to proceed with diligence.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "John R. Barry". The signature is written in dark ink and is positioned below the typed name "John R. Barry".

609 115

## LETTER AGREEMENT

AMONG

SOUTHERN CALIFORNIA EDISON COMPANY

SAN DIEGO GAS &amp; ELECTRIC COMPANY

CITY OF RIVERSIDE

CITY OF ANAHEIM

Southern California Edison Company (Edison), San Diego Gas & Electric Company (San Diego), City of Riverside (Riverside), and City of Anaheim (Anaheim) have entered into the November 1, 1977 Letter Agreement and the First Amendment to November 1, 1977 Letter Agreement, which provide, among other things, that if the agreements attached thereto as Exhibits A, B, C, D, and E have not been executed by July 1, 1979, the November 1, 1977 Letter Agreement shall have no further force or effect.

The November 1, 1977 Letter Agreement also provides that the agreements referred to hereinabove shall be executed and become effective in accordance with the terms thereof when each party is, in its sole discretion, satisfied that the execution of said agreements will not adversely affect the investment tax credit for those portions of the San Onofre Nuclear Generating Station, Units 2 and 3, owned by Edison and San Diego.

On March 29, 1979, the Internal Revenue Service issued its letter ruling concerning investment tax credit of Edison and San Diego at the San Onofre Nuclear Generating Station, Units 2 and 3. Pursuant to said letter ruling, it appears that execution of the aforementioned agreements will not adversely affect the investment tax credit for those portions of San Onofre Nuclear Generating Station, Units 2 and 3, owned by Edison and San Diego.

The Nuclear Regulatory Commission has let stand a recent decision by its acting director of Nuclear Reactor Regulation in connection with the Enrico Fermi Atomic Power Plant, Unit 2, that a transfer of interest in said power plant without approval of the Nuclear Regulatory Commission was a violation of Section 101 of the Atomic Energy Act.

Edison and San Diego have determined that they cannot lawfully execute the agreements attached to the November 1, 1977 Letter Agreement until approval of the Nuclear Regulatory Commission for a change of ownership has been received.

It is unlikely that such approval from the Nuclear Regulatory Commission can be obtained before July 1, 1979.

THEREFORE, THE PARTIES HERETO AGREE AS FOLLOWS:

1. Each party hereto is satisfied that execution of such of the following agreements as are to be executed by it will not adversely affect the investment tax credit for those portions of the San Onofre Nuclear Generating Station,

609 117

Units 2 and 3, owned by Edison and San Diego:

- A. San Onofre Units 2 and 3 Participation Agreement.
- B. Supplemental Agreement for the Integration of Anaheim's Entitlements in San Onofre Unit 2 and Unit 3.
- C. Supplemental Agreement for the Integration of Riverside's Entitlements in San Onofre Unit 2 and Unit 3.
- D. Edison-Anaheim San Onofre Transmission Service Agreement.
- E. Edison-Riverside San Onofre Transmission Service Agreement.

2. The above listed agreements, in the form attached to the November 1, 1977 Letter Agreement as amended, have been fully negotiated by the parties thereto, and the parties to said agreements agree that they are in final form.

3. The parties hereto shall cooperate with each other in providing assistance and information in order to expedite approval of an application to the Nuclear Regulatory Commission (NRC) and will take those actions necessary to obtain NRC approval of the application for permission to transfer an ownership interest in the San Onofre Nuclear Generating Station, Units 2 and 3, and the Common Facilities relating thereto to Anaheim and Riverside (The Application).

4. Anaheim and Riverside shall each reimburse Edison for 50 percent of the costs incurred by Edison for outside legal counsel and related travel expenses for Edison personnel in its endeavor to obtain NRC approval of The Application and to obtain revenue ruling referred to in Section 1 of the November 1, 1977 Letter Agreement. Neither the seeking of said ruling, the filing of The Application, nor the reimbursement of costs as provided herein nor any provision of this Letter Agreement shall be deemed to modify any party's rights or obligations under the Settlement Agreement dated August 4, 1972, between Edison and the Cities of Anaheim, Banning, and Riverside.

5. Neither Anaheim nor Riverside will be required to make any payments pursuant to Section 8 of the Participation Agreement until NRC approval of The Application has been received and those agreements listed in Section 1 above have been executed.

6. If the agreements listed in Section 1 above are executed, Anaheim and Riverside shall pay to Edison and San Diego those amounts due under Section 8 of the Participation Agreement in accordance with the terms thereof plus 9 percent of those amounts due under Section 8 of the Participation Agreement per annum from the date such payment would have been due under the Participation Agreement to the date of payment.

7. Notwithstanding any previous agreement to the contrary, the agreements listed in Section 1 of this Letter Agreement in the form attached to the November 1, 1977 Letter Agreement

as amended, shall be executed by Edison, and by San Diego in the case of the Participation Agreement, when the Nuclear Regulatory Commission has granted Edison permission to transfer to Anaheim and Riverside, respectively, ownership interests in the San Onofre Nuclear Generating Station, Units 2 and 3, and the San Onofre Nuclear Generating Station Common Facilities. Riverside and Anaheim shall execute said agreements within seventy-five(75) days after Edison, and in the case of the Participation Agreement, San Diego have executed said agreements, and said agreements shall then become effective in accordance with the terms thereof.

8. The parties hereto have caused this Letter Agreement to be executed on their behalf and the signatories hereto represent that they have been duly authorized to enter into this Letter Agreement on behalf of the party for whom they sign.

Executed as of the 29<sup>th</sup> day of June, 1979.

ATTEST:

J.C. Bobich  
Secretary

ATTEST:

[Signature]

ATTEST:

Alice C. Han  
City Clerk

ATTEST:

Shirley A. Taylor  
Deputy City Clerk

SOUTHERN CALIFORNIA EDISON COMPANY

By [Signature]

SAN DIEGO GAS & ELECTRIC COMPANY

By [Signature]

CITY OF RIVERSIDE

By [Signature]

CITY OF ANAHEIM

By [Signature]

General Manager

APPROVED AS TO FORM  
[Signature]  
APPROVED AS TO FORM  
[Signature]

DATE: June 22, 1979

PAUL W. BARNICO  
Attorney

SAN ONOFRE UNITS 2  
AND 3 PARTICIPATION AGREEMENT

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SAN ONOFRE UNITS 2  
AND 3 PARTICIPATION AGREEMENT

1  
2  
3 1. PARTIES: The Parties to this Participation Agreement  
4 are: SOUTHERN CALIFORNIA EDISON COMPANY, a California  
5 corporation ("Edison"); SAN DIEGO GAS & ELECTRIC  
6 COMPANY, a California corporation ("San Diego"); CITY  
7 OF RIVERSIDE, a municipal corporation of the State of  
8 California ("Riverside"); and CITY OF ANAHEIM, a  
9 municipal corporation of the State of California  
10 ("Anaheim"); individually "Party," collectively  
11 "Parties."

12 2. RECITALS: This Participation Agreement is made with  
13 reference to the following facts, among others:

14 2.1 Edison and San Diego presently own, as  
15 tenants-in-common, a nuclear generating station  
16 located on a site of approximately 90 acres in the  
17 northwest corner of the Marine Corps Base, Camp  
18 Pendleton, California, and known as the San Onofre  
19 Nuclear Generation Station ("San Onofre").

20 2.2 Edison, Riverside, Anaheim, and the City of  
21 Banning entered into the Settlement Agreement, dated  
22 August 4, 1972, under which Edison offered to Riverside,  
23 Anaheim, and the City of Banning participation in the  
24 ownership and output of Units 2 and 3 at San Onofre.

25 2.3 Riverside and Anaheim by letters to Edison  
26 dated April 8, 1977 and April 5, 1977, respectively,

1 have indicated their intent to participate in Units 2  
2 and 3 at San Onofre in accordance with the terms and  
3 conditions of the Settlement Agreement.

4 2.4 The Parties desire to provide in this  
5 Participation Agreement the terms and conditions under  
6 which Riverside and Anaheim participate in the  
7 ownership and output of Units 2 and 3 at San Onofre.

8 3. AGREEMENT: The Parties agree as follows:

9 4. DEFINITIONS: When used herein, the following terms  
10 shall have the following meanings:

11 4.1 Additional Generating Unit: Any facility  
12 for the generation of electrical energy (including all  
13 auxiliary and associated equipment) constructed or  
14 installed at San Onofre other than Unit 1, Unit 2, or  
15 Unit 3 or generating facilities necessary for the  
16 operation of Unit 1, Unit 2, or Unit 3.

17 4.2 Common Facilities: Those facilities which  
18 will serve in connection with the operation and  
19 maintenance of all of Units 1, 2, and 3 and which consist  
20 of the administrative, warehouse and shop building,  
21 including any associated facilities installed therein  
22 for the use of all of Units 1, 2, and 3; the security  
23 system; the sewage treatment plant; the microwave  
24 facility; the common fencing and landscaping; the  
25 environmental monitoring equipment; a portion of the  
26 railroad spur track; the plant access roads; the

1 probable maximum flood protection facilities; and such  
2 other facilities as the Parties may agree upon from time  
3 to time.

4 4.3 Common Facilities Area: The entire land  
5 area covered by the Project Easements except for the  
6 Unit 1 Area, the Units 2 and 3 Area, and the Switch-  
7 yard Area, as more fully described in Exhibit B and  
8 shown in Exhibit A, both attached hereto.

9 4.4 Construction Agreement: The San Onofre  
10 Units 2 and 3 Construction Agreement between Edison  
11 and San Diego, dated May 24, 1973, as amended by  
12 Amendment No. 1 dated March 8, 1977, attached hereto  
13 as Exhibit F.

14 4.5 Construction Costs: Those costs described  
15 by Sections 4.2 and 6.1 of the Construction Agreement.

16 4.6 Coordinating Representatives: The repre-  
17 sentatives established pursuant to Section 7.1.1 of  
18 the Construction Agreement.

19 4.7 Current Operating Capacity: The maximum  
20 Units 2 and 3 output in kilowatts available to the  
21 Edison Switchyard and San Diego Switchyard less the  
22 simultaneous power required for operation of all  
23 process and auxiliary equipment and systems used or  
24 useful in connection with the operation and  
25 maintenance of Units 2 and 3.

26 4.8 Edison Switchyard: The 220-kV switchrack

1 and related facilities at San Onofre connected to and  
2 located north of the Interconnection Facilities  
3 except for the power circuit breakers, transformer  
4 side disconnect switches, conductors, structures, founda-  
5 tions, and dead-end assemblies associated with the main  
6 transformer leads and reserve auxiliary transformer leads,  
7 or any environmental radiation monitoring equipment  
8 installed therein. In addition, the controls associated  
9 with the Edison Switchyard located in the Units 2 and 3  
10 control-administration building are considered to be  
11 part of the Edison Switchyard.

12 4.9 Generation Entitlement Share: The per-  
13 centage entitlement of each Party to the Net Energy  
14 Generation and to the Current Operating Capacity. Each  
15 Party's such percentage entitlement to Units 2 and 3  
16 shall be as follows:

17 4.9.1 Edison - 76.55 percent

18 4.9.2 San Diego - 20.00 percent

19 4.9.3 Riverside - 1.79 percent

20 4.9.4 Anaheim - 1.66 percent

21 4.10 Interconnection Facilities: The power  
22 circuit breakers, conductors, bus support structures,  
23 disconnect switches, current transformers, potential  
24 transformers, relaying, metering, relaying and meter-  
25 ing interface cabinets and taps to the 220-kV buses  
26 located in or associated with the bus sectionalizing

1 position through which the Edison Switchyard and the  
2 San Diego Switchyard are connected and the common air  
3 conditioning unit and associated controls for the  
4 relay houses.

5 4.11 Net Energy Generation: The energy  
6 (kilowatthours) generated by Units 2 and 3 over any  
7 period of time less the energy required for operation  
8 of all process and auxiliary equipment and systems used  
9 in connection with the operation and maintenance of  
10 Units 2 and 3.

11 4.12 Nuclear Fuel: Any special nuclear or  
12 byproduct material as defined in the Atomic Energy Act  
13 of 1954, as amended and as may be amended from time to  
14 time, including irradiated fuel and radioactive waste  
15 and other products resulting directly or as a result  
16 of reprocessing, possessed or utilized in connection  
17 with Unit 2 or Unit 3, or produced or remaining as a  
18 result of the operation of Unit 2 or Unit 3. Where  
19 the term "supply of Nuclear Fuel" is used, it shall  
20 mean and include arrangements with respect to all  
21 aspects of the nuclear fuel cycle, including the mining,  
22 milling, design and licensing, conversion, enrichment,  
23 fabrication, transportation, reprocessing, storage and  
24 disposal of Nuclear Fuel.

25 4.13 Nuclear Fuel Agreement: Any agreement  
26 entered into by the Project Director (or Operating

1 Agent) for the supply of Nuclear Fuel, including,  
2 without limitation, agreements for the purchase, sale,  
3 lease, transfer, disposition, management, storage,  
4 transportation, mining, milling, conversion, enrichment,  
5 processing, design and licensing, fabrication, repro-  
6 cessing, and disposal of Nuclear Fuel.

7 4.14 Operating Agent: Edison, who, pursuant to  
8 the San Onofre Units 2 and 3 Letter Agreement, is  
9 designated the Company having responsibility for the  
10 operation and maintenance of Unit 2 and Unit 3.

11 4.15 Ownership Agreement: The San Onofre  
12 Ownership Agreement between Edison and San Diego,  
13 dated October 5, 1967, and attached hereto as  
14 Exhibit G.

15 4.16 Plant Site: An area of land used for the  
16 major portion of San Onofre described in an easement  
17 granted for such purpose by the United States to  
18 Edison and San Diego on May 12, 1964 and recorded in  
19 the Official Records, Office of the County Recorder of  
20 San Diego County, in Series 5, Book 1964, Page No. 85887  
21 as amended by the Amendment to Grant of Easement recorded  
22 on July 6, 1977 in the Official Records, Office of the  
23 County Recorder of San Diego County, in Book 1977,  
24 Page No. 77-268984.

25 4.17 Project Director: Edison, who, as agent for  
26 San Diego, Riverside, and Anaheim, and as principal on its

1 own behalf, is designated the Party having the  
2 responsibility for the performance and completion of  
3 the "Project Work" under the Construction Agreement.

4 4.18 Project Easements: The interests acquired  
5 under (1) three easements in favor of Edison and San  
6 Diego granted by the United States of America, covering  
7 respectively, the Plant Site, including the associated  
8 exclusion area, the Access Road Area, and the Spur  
9 Track Area, all recorded in the Official Records of  
10 San Diego County and hereinafter sometimes referred to  
11 respectively as the Plant Site Easement, the Access  
12 Road Easement and the Spur Track Easement; (2) the  
13 easement-lease covering the Off-Shore Land; (3) a  
14 license granted to Edison and San Diego by the  
15 Atchison, Topeka and Santa Fe Railway perfecting the  
16 rights of Edison and San Diego for those portions of  
17 the Access Road Area lying within the railroad right  
18 of way; and (4) any Subsequent Acquisition; all initial  
19 capitalized terms in this section shall have the  
20 meanings defined in this Participation Agreement or,  
21 if not defined herein, in the Ownership Agreement.

22 4.19 San Diego Switchyard: The 220-kV switchrack  
23 and related facilities at San Onofre connected to and  
24 located south of the Interconnection Facilities  
25 except for the power circuit breakers, transformer  
26 side disconnect switches, conductors, structures,



1 foundations, and dead-end assemblies associated  
2 with the main transformer leads and reserve auxiliary  
3 transformer leads, or any environmental radiation  
4 monitoring equipment installed therein.

5 4.20 San Onofre Nuclear Generating Station

6 ("San Onofre"): The entire nuclear generating facility  
7 located on a site of approximately 90 acres in the  
8 northwest corner of the Marine Corps Base, Camp  
9 Pendleton, California, consisting of the Plant Site,  
10 the Access Road Area, the Spur Track Area, and Off-  
11 Shore Land, any Subsequent Acquisitions, Unit 1, Unit 2,  
12 Unit 3, the Common Facilities, the Edison  
13 Switchyard, the San Diego Switchyard, the Interconnection  
14 Facilities, and any Additional Generating Units subse-  
15 quently constructed or installed, as such terms are  
16 defined in this Participation Agreement or, if not  
17 defined herein, in the Ownership Agreement.

18 4.21 San Onofre Units 2 and 3 Letter Agreement:

19 The letter agreement between Edison and San Diego,  
20 dated January 22, 1970 and agreed to by San Diego on  
21 January 23, 1970, relating to the ownership, construc-  
22 tion, operation, maintenance, and use of Units 2 and 3,  
23 and which is attached hereto as Exhibit H.

24 4.22 Switchyard Area: The land area covered by  
25 the Project Easements and generally used for the Edison  
26 Switchyard, the San Diego Switchyard, and the Inter-

1 connection Facilities as more fully described in  
2 Exhibit C and shown in Exhibit A, both attached hereto.

3 4.23 Unit 1: The first nuclear generating unit  
4 at San Onofre currently rated at approximately 436  
5 megawatts (net) of electric power and consisting of a  
6 nuclear steam supply system, a turbine-generator, and  
7 all related equipment and facilities which are necessary  
8 for the safe and efficient generation of electrical  
9 energy including the power circuit breakers, transformer  
10 side disconnect switches, conductors, structures,  
11 foundations, and dead-end assemblies installed in the  
12 Switchyard Area and associated with the Unit 1 main  
13 transformer leads and reserve auxiliary transformer  
14 leads, but excluding the Common Facilities.

15 4.24 Unit 1 Area: The land area covered by  
16 the Project Easements and generally used for Unit 1,  
17 as more fully described in Exhibit D and shown in  
18 Exhibit A, both attached hereto.

19 4.25 Unit 1 Off-Shore Land: That portion of the  
20 Unit 1 Area designated as Parcel 2 in Exhibit A and  
21 Exhibit D, both attached hereto.

22 4.26 Unit 1 Operating Agreement: The Amended  
23 San Onofre Operating Agreement between Edison and  
24 San Diego, dated July 30, 1970, as amended by Amendment  
25 No. 1 to Amended San Onofre Operating Agreement dated  
26 August 30, 1971, and attached hereto as Exhibit I.

1           4.27 Unit 2: The second nuclear generating  
2 unit at San Onofre designed to generate approximately  
3 1,100 megawatts (net) of electric power and consisting  
4 of a nuclear steam supply system, a turbine-generator  
5 and all related equipment and facilities which are  
6 necessary for the safe and efficient generation of  
7 electrical energy, including the power circuit breakers,  
8 transformer side disconnect switches, conductors,  
9 structures, foundations, and dead-end assemblies installed  
10 in the Switchyard Area and associated with the Unit 2  
11 main transformer leads and reserve auxiliary transformer  
12 leads, and that equipment necessary to connect Unit 2  
13 with those facilities existing as part of Unit 1 and  
14 those facilities that will be part of Unit 3, installed  
15 on the Plant Site, but excluding the Common Facilities.

16           4.28 Unit 3: The third nuclear generating unit  
17 at San Onofre designed to generate approximately 1,100  
18 megawatts (net) of electric power and consisting of a  
19 nuclear steam supply system, a turbine-generator and all  
20 related equipment and facilities which are necessary  
21 for the safe and efficient generation of electrical  
22 energy, including the power circuit breakers, transformer  
23 side disconnect switches, conductors, structures,  
24 foundations, and dead-end assemblies installed in the  
25 Switchyard Area and associated with the Unit 3 main  
26 transformer leads and reserve auxiliary transformer

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1 leads, and that equipment necessary to connect Unit 3  
2 with those facilities that will be part of Unit 2,  
3 installed on the Plant Site, but excluding the Common  
4 Facilities.

5 4.29 Units 2 and 3 Area: The land area  
6 covered by the Project Easements and generally  
7 used for Units 2 and 3, as more fully described in  
8 Exhibit E and shown in Exhibit A, both attached hereto.

9 4.30 Units 2 and 3 Off-Shore Land: That portion of  
10 the Units 2 and 3 Area designated as Parcel 2 in Exhibit A  
11 and Exhibit E, both attached hereto.

12 4.31 Uranium Requirements: The most current  
13 projection by calendar year of the quantity of natural  
14 uranium U308 concentrates necessary for the refueling  
15 of Unit 2 and Unit 3 for the remaining operating life  
16 of the unit as developed by the Project Director (or  
17 Operating Agent) and updated on an annual basis.

18 5. OWNERSHIP: Upon execution of this Participation Agreement:

19 5.1 Edison, San Diego, Riverside, and Anaheim  
20 shall own Units 2 and 3 as tenants-in-common in pro-  
21 portion to their respective Generation Entitlement  
22 Shares.

23 5.2 Edison, San Diego, Riverside, and Anaheim  
24 shall own the Common Facilities as tenants-in-common  
25 as follows:

26 5.2.1 Edison shall own an undivided 77.12

1 percent interest therein;

2 5.2.2 San Diego shall own an undivided 20.00  
3 percent interest therein;

4 5.2.3 Riverside shall own an undivided 1.49  
5 percent interest therein; and

6 5.2.4 Anaheim shall own an undivided 1.39  
7 percent interest therein.

8 5.3 Edison, San Diego, Riverside, and Anaheim  
9 shall have the following interests in the Project  
10 Easements:

11 5.3.1 Edison shall have the following  
12 undivided co-tenancy interests therein:

13 5.3.1.1 Unit 1 Area - 80.00%

14 5.3.1.2 Units 2 and 3 Area - 76.55%

15 5.3.1.3 Common Facilities Area - 77.12%

16 5.3.1.4 Switchyard Area - 80.00%

17 5.3.2 San Diego shall have the following  
18 undivided co-tenancy interests therein:

19 5.3.2.1 Unit 1 Area - 20.00%

20 5.3.2.2 Units 2 and 3 Area - 20.00%

21 5.3.2.3 Common Facilities Area - 20.00%

22 5.3.2.4 Switchyard Area - 20.00%

23 5.3.3 Riverside shall have the following  
24 undivided co-tenancy interests therein:

25 5.3.3.1 Unit 1 Area - 0.00%

26 5.3.3.2 Units 2 and 3 Area - 1.79%

1 5.3.3.3 Common Facilities Area - 1.49%

2 5.3.3.4 Switchyard Area - 0.00%

3 5.3.4 Anaheim shall have the following  
4 undivided co-tenancy interests therein:

5 5.3.4.1 Unit 1 Area - 0.00%

6 5.3.4.2 Units 2 and 3 Area - 1.66%

7 5.3.4.3 Common Facilities Area - 1.39%

8 5.3.4.4 Switchyard Area - 0.00%

9 Where necessary, facilities associated with and  
10 incidental to a specific portion of San Onofre may be  
11 installed on or over any portion of the Plant Site.

12 6. TRANSFER OF RIGHTS AND OBLIGATIONS:

13 6.1 Edison hereby sells and Riverside and Anaheim  
14 each hereby purchase the respective ownership interest  
15 of Riverside and Anaheim in that portion of Units 2  
16 and 3 for which Edison has paid as of the date of  
17 execution of this Participation Agreement.

18 6.2 Edison hereby sells and Riverside and Anaheim  
19 each hereby purchase the respective ownership interest  
20 of Riverside and Anaheim in that portion of the Common  
21 Facilities for which Edison has paid as of the date of  
22 execution of this Participation Agreement.

23 6.3 Upon receipt of payment pursuant to  
24 Section 8.5, Edison shall assign to Riverside and  
25 Anaheim their respective interests in the Project  
26 Easements. Edison shall make initial contacts

1 with the necessary persons and agencies concerning  
2 assignment of the Project Easements, after which Edison  
3 and San Diego shall assist and cooperate with Riverside  
4 and Anaheim in effecting such assignments; however,  
5 Riverside and Anaheim shall have primary responsibility  
6 for drafting and for taking other appropriate actions  
7 to effect said assignments. Assignment of the Project  
8 Easements shall in no way affect Edison's and San Diego's  
9 rights to install Additional Generating Units or other  
10 facilities in the Switchyard Areas, the Unit 1 Area,  
11 the Common Facilities Area, and any areas available  
12 for future use, in which Riverside and Anaheim shall be  
13 neither granted nor denied an ownership interest by  
14 reason of any provision of this Participation Agreement.

15 6.4 Edison hereby assigns to Riverside an  
16 undivided 1.79 percent interest and to Anaheim an  
17 undivided 1.66 percent interest in the Construction  
18 Agreement as it pertains to Units 2 and 3. Edison  
19 hereby assigns to Riverside an undivided 1.49 percent  
20 interest and to Anaheim an undivided 1.39 percent  
21 interest in the Construction Agreement as it pertains  
22 to Common Facilities. Riverside and Anaheim hereby  
23 acquire all rights and assume all duties and obliga-  
24 tions of a "Company" under the Construction Agreement  
25 applicable to their undivided interests therein. The  
26 Construction Agreement shall be amended to provide for



1 Riverside's and Anaheim's acquisition of a portion of  
2 Edison's rights and obligations under the Construction  
3 Agreement. Except as mutually agreed or except as  
4 provided by this Participation Agreement, no  
5 significant departures shall be made from the arrange-  
6 ments previously agreed to by Edison and San Diego and  
7 set forth in the Construction Agreement; however,  
8 Section 6.1.8 of the Construction Agreement shall be  
9 amended to provide for payment by Riverside and  
10 Anaheim of their proportionate shares of the adminis-  
11 trative and general expenses actually recorded by  
12 Edison. Edison shall remain the Project Director.  
13 Edison and San Diego shall cooperate with Riverside  
14 and Anaheim in amending the Construction Agreement;  
15 however, Riverside and Anaheim shall have primary  
16 responsibility for drafting contract language and  
17 for performing other work necessary to amend the  
18 Construction Agreement.

19 6.5 Edison, San Diego, Riverside, and Anaheim  
20 shall own Units 2 and 3 and the Common Facilities under  
21 obligations, terms and conditions no less favorable than  
22 those set forth in the Ownership Agreement, as supple-  
23 mented by the San Onofre Units 2 and 3 Letter  
24 Agreement, and those set forth herein. The Ownership  
25 Agreement shall be amended, and executed by the Parties,  
26 to provide for Riverside's and Anaheim's ownership



1 interests as set forth in this Participation Agreement.  
2 Except as mutually agreed or except as provided by  
3 this Participation Agreement, no significant departures  
4 shall be made from the arrangements previously agreed  
5 to by Edison and San Diego and set forth in the  
6 Ownership Agreement as supplemented by the San Onofre  
7 Units 2 and 3 Letter Agreement. Edison and San Diego  
8 shall cooperate with Riverside and Anaheim in amending  
9 the Ownership Agreement; however, Riverside and  
10 Anaheim shall have primary responsibility for drafting  
11 contract language and for performing other work  
12 necessary to amend the Ownership Agreement. The  
13 following facts shall be recognized by and  
14 incorporated in the amendment to the Ownership  
15 Agreement:

16 6.5.1 Significant changes have occurred  
17 in the description and location of certain facilities;

18 6.5.2 Unless agreed otherwise, Riverside  
19 and Anaheim shall have no ownership interest, cost  
20 responsibility, rights or obligations in Unit 1, the  
21 San Diego Switchyard, the Edison Switchyard, nor the  
22 Interconnection Facilities under this Participation  
23 Agreement;

24 6.5.3 The definitions of the San Diego  
25 Switchyard, Edison Switchyard, Interconnection  
26 Facilities, Unit 1, Unit 2, Unit 3, Additional

1 Generating Unit, Plant Site, and San Onofre Nuclear  
2 Generating Station shall be amended to coincide with  
3 the definitions contained in this Participation  
4 Agreement; and

5 6.5.4 The Parties each reserve any rights which  
6 they may have either by contract or by law, to participate  
7 in any Additional Generating Unit; provided, however, that  
8 Riverside and Anaheim shall be neither granted nor denied  
9 participation rights by reason of any provision of this  
10 Participation Agreement.

11 6.6 Edison, San Diego, Riverside, and Anaheim  
12 shall negotiate in good faith and execute an operating  
13 agreement covering the operation and maintenance of  
14 Units 2 and 3. Except as mutually agreed or except as  
15 provided by this Participation Agreement, said operat-  
16 ing agreement shall provide for the operation and  
17 maintenance of Units 2 and 3 in substantially the same  
18 manner and under substantially the same terms and  
19 conditions as the Unit 1 Operating Agreement provides  
20 for Unit 1 as supplemented by the San Onofre Units 2  
21 and 3 Letter Agreement. Edison shall be the Operating  
22 Agent for Units 2 and 3. The Parties hereby appoint the  
23 Operating Agent as their agent, and the Operating Agent  
24 shall undertake as their agent and as principal on  
25 its own behalf, to carry out the duties and responsi-  
26 bilities provided hereunder to be performed by it.

1           6.7 Edison has or will install communication  
2 facilities at locations other than San Onofre which  
3 are required in the performance of its duties as  
4 Operating Agent. Edison, San Diego, Riverside, and  
5 Anaheim shall negotiate in good faith and execute an  
6 off-site communication facilities agreement providing  
7 for the allocation of costs associated with the  
8 off-site communication facilities owned by the  
9 Operating Agent and required in the performance of  
10 San Onofre operation and maintenance functions.

11           6.8 Edison, San Diego, Riverside, and Anaheim  
12 shall cooperate in identifying and in amending or  
13 assigning where necessary the permits, licenses and  
14 material, equipment and service suppliers' agreements  
15 held in connection with Units 2 and 3; however, Riverside  
16 and Anaheim shall have primary responsibility for  
17 drafting and for taking other appropriate actions to  
18 effect such amendments and assignments of permits and  
19 licenses. Edison shall have primary responsibility for  
20 drafting and for taking other appropriate actions to  
21 effect such amendments and assignments of material,  
22 equipment and service suppliers' agreements. A listing  
23 of said permits, licenses, and material, equipment and  
24 service suppliers' agreements identified to date is  
25 attached hereto as Exhibit J.

26           6.9 Except as provided otherwise herein, Edison

1 and San Diego agree, upon request of Riverside or Anaheim,  
2 to make, execute or deliver, as may be reasonably  
3 required, any and all documents needed to implement or  
4 effectuate the transfer of rights and obligations  
5 provided for in this Participation Agreement.

6 6.10 Anaheim and Riverside each shall be entitled  
7 to their proportionate share of the benefits of, and  
8 shall each be bound by and pay their proportionate share  
9 of all costs and liabilities incurred by Edison in the  
10 performance of its duties under, all material, equipment  
11 and service suppliers' agreements entered into by  
12 Edison or Edison and San Diego for the construction,  
13 operation and maintenance of Units 2 and 3 and the  
14 Common Facilities. Said benefits, costs and liabilities  
15 shall enure to or become the responsibility of  
16 Anaheim and Riverside in their respective proportionate  
17 shares regardless of whether Anaheim and Riverside or  
18 either of them have become parties to such agreements.

19 7. COST RESPONSIBILITIES:

20 7.1 Riverside and Anaheim shall reimburse Edison  
21 for all recorded costs and expenses (including ad valorem  
22 taxes incurred by Edison and prorated as of November 1,  
23 1977, Construction Costs including costs of the Units 2  
24 and 3 Off-Shore Land, Edison's allowance for funds used  
25 during construction, and administrative and general  
26 expenses) expended on or prior to the date hereof by

1 Edison on its own behalf in connection with Units 2  
2 and 3 as follows:

3 7.1.1 Riverside shall reimburse Edison for  
4 2.2375 percent of such costs and expenses; and

5 7.1.2 Anaheim shall reimburse Edison for  
6 2.0750 percent of such costs and expenses.

7 7.2 Riverside and Anaheim shall reimburse Edison  
8 for the reproduction costs new (including applicable  
9 overheads, allowance for funds used during construction,  
10 and administrative and general expenses) less depre-  
11 ciation of Common Facilities paid for by Edison and San  
12 Diego on or prior to the date hereof as follows:

13 7.2.1 The total amount of the reproduction  
14 cost new less depreciation of such Common Facilities  
15 as of the date hereof shall be deemed to be  
16 \$8,600,000.00;

17 7.2.2 Riverside shall reimburse Edison for  
18 1.49 percent of such total amount; and

19 7.2.3 Anaheim shall reimburse Edison for  
20 1.39 percent of such total amount.

21 7.3 Construction Costs associated with Units 2  
22 and 3 incurred subsequent to the date hereof shall be  
23 borne by the Parties as follows:

24 7.3.1 Edison shall bear 76.55 percent of  
25 such costs,

26 7.3.2 San Diego shall bear 20.00 percent

1 of such costs;

2 7.3.3 Riverside shall bear 1.79 percent of  
3 such costs; and

4 7.3.4 Anaheim shall bear 1.66 percent of  
5 such costs.

6 7.4 Construction Costs associated with Common  
7 Facilities incurred subsequent to the date hereof  
8 shall be borne by the Parties as follows:

9 7.4.1 Edison shall bear 77.12 percent of  
10 such costs;

11 7.4.2 San Diego shall bear 20.00 percent  
12 of such costs;

13 7.4.3 Riverside shall bear 1.49 percent  
14 of such costs; and

15 7.4.4 Anaheim shall bear 1.39 percent of  
16 such costs.

17 7.5 Costs of all Project Easements, except for the  
18 Plant Site easement, the Unit 1 Off-Shore Land easement-  
19 lease, and the Units 2 and 3 Off-Shore Land easement-  
20 lease, incurred subsequent to the date hereof shall be  
21 borne by the Parties as follows:

22 7.5.1 Edison shall bear 77.12 percent of  
23 such costs;

24 7.5.2 San Diego shall bear 20.00 percent of  
25 such costs;

26 7.5.3 Riverside shall bear 1.49 percent of

1 such costs; and

2 7.5.4 Anaheim shall bear 1.39 percent of  
3 such costs.

4 7.6 Costs of the Plant Site easement incurred  
5 subsequent to the date hereof shall be borne by the  
6 Parties as follows:

7 7.6.1 Edison shall bear 77.8915 percent of  
8 such costs;

9 7.6.2 San Diego shall bear 20.0000 percent of  
10 such costs;

11 7.6.3 Riverside shall bear 1.0921 percent  
12 of such costs; and

13 7.6.4 Anaheim shall bear 1.0164 percent of  
14 such costs.

15 7.7 Costs of the Units 2 and 3 Off-Shore Land  
16 easement-lease incurred subsequent to the date hereof  
17 shall be borne by the Parties as follows:

18 7.7.1 Edison shall bear 76.55 percent of  
19 such costs;

20 7.7.2 San Diego shall bear 20.00 percent of  
21 such costs;

22 7.7.3 Riverside shall bear 1.79 percent of  
23 such costs; and

24 7.7.4 Anaheim shall bear 1.66 percent of  
25 such costs.

26 7.8 Costs of the Unit 1 Off-Shore Land easement-lease

1 incurred subsequent to the date hereof shall be borne  
2 by the Parties as follows:

3 7.8.1 Edison shall bear 80.00 percent of  
4 such costs;

5 7.8.2 San Diego shall bear 20.00 percent of  
6 such costs;

7 7.8.3 Riverside shall bear 0.00 percent of  
8 such costs; and

9 7.8.4 Anaheim shall bear 0.00 percent of  
10 such costs.

11 7.9 If, pursuant to Section 5.3, facilities  
12 associated with and incidental to a specific portion  
13 of San Onofre are installed on or over any portion of  
14 the Plant Site not designated for such use and if  
15 the Coordinating Committee established under the  
16 Construction Agreement or the Board of Review to be  
17 established under the operating agreement for Units 2 & 3  
18 determines that such installation significantly alters the  
19 benefits derived from the Project Easements by each of the  
20 Parties, the Parties shall amend Sections 7.5, 7.6, 7.7  
21 and 7.8, hereof, or the definitive agreement which  
22 supersedes such Sections.

23 7.10 Riverside and Anaheim shall reimburse  
24 Edison for the acquisition, rental, and developmental  
25 expenses incurred by Edison on its own and San Diego's  
26 behalf in connection with San Onofre land rights



1 (other than the Units 2 and 3 Off-Shore Land rights,  
2 the cost of which shall be considered a Construction  
3 Cost under Section 7.1, hereof) as follows:

4 7.10.1 The amount of such expenses is  
5 deemed to be \$1,366,300.00;

6 7.10.2 Riverside shall reimburse Edison  
7 for 1.1651 percent of such amount; and

8 7.10.3 Anaheim shall reimburse Edison for  
9 1.0836 percent of such amount.

10 7.11 Except for costs incurred in negotiating  
11 and preparing this Participation Agreement and the  
12 definitive Project Agreements among Edison, San Diego,  
13 Riverside, and Anaheim, Riverside and Anaheim shall  
14 reimburse Edison and San Diego for all costs incurred  
15 by each of them to effect Riverside's and Anaheim's  
16 participation in Units 2 and 3 as follows:

17 7.11.1 Riverside shall reimburse Edison and  
18 San Diego for 50 percent of such costs; and

19 7.11.2 Anaheim shall reimburse Edison and  
20 San Diego for 50 percent of such costs.

21 7.12 Except as mutually agreed or except as  
22 provided by Section 11 hereof, operation and maintenance  
23 costs and expenses shall be borne by the Parties in  
24 proportion to their respective ownership interests in  
25 the facility for which such costs and expenses are  
26 incurred.

1 8. BILLING AND PAYMENT:

2 8.1 Edison shall submit to each of Riverside  
3 and Anaheim upon or subsequent to execution of this  
4 Participation Agreement, an invoice for the amount of  
5 those costs and expenses covered by Section 7.1.  
6 Riverside and Anaheim shall pay the invoice amount to  
7 Edison within fifteen (15) days after receipt of  
8 such invoice.

9 8.2 Edison shall bill, and Riverside and Anaheim  
10 shall pay, those costs covered by Sections 7.3 and 7.4  
11 in the manner presently used between Edison and San  
12 Diego and set forth in Sections 6.7 and 6.9 of the  
13 Construction Agreement.

14 8.3 Until such time as the Project Easements are  
15 assigned pursuant to Section 6.3 and arrangements are  
16 made to provide for direct payment by Riverside and  
17 Anaheim to the agencies issuing easements and until  
18 such time as all assessments and taxes for which  
19 Riverside and Anaheim are responsible pursuant to  
20 Section 12.1 are assessed and levied directly against  
21 Riverside and Anaheim, Edison shall bill Riverside and  
22 Anaheim for their proportionate share of costs covered  
23 by Sections 7.5, 7.6, 7.7, and 12.1. Such billing shall  
24 be made on or before 20 days prior to the date said cost,  
25 assessment or tax becomes due to the issuing agency  
26 or taxing authority. Riverside and Anaheim shall

1 pay to Edison the amount specified by such billing  
2 prior to the date said cost becomes due to the  
3 issuing agency or taxing authority.

4 8.4 Riverside and Anaheim shall pay to Edison  
5 the amounts set forth in Section 7.2 and Section 7.10  
6 within ten days after execution of this Participation  
7 Agreement.

8 8.5 Edison and San Diego shall submit to River-  
9 side and Anaheim, no more frequently than monthly,  
10 invoices for the amount of costs covered by Section 7.11.  
11 Riverside and Anaheim shall pay the invoiced amount to  
12 Edison and San Diego within fifteen (15) days after  
13 receipt of such invoice.

14 8.6 Edison shall bill, and Riverside and Anaheim  
15 shall pay, all operation and maintenance costs in the  
16 manner to be set forth in the operating agreement  
17 executed pursuant to Section 6.6, hereof.

18 8.7 Payments not made to Edison and/or San Diego  
19 by Riverside and Anaheim on or before the due date  
20 shall be payable with interest accrued at the rate of  
21 ten percent (10%) per annum or the maximum legal rate  
22 of interest, whichever is less, computed from the due  
23 date to the date payment is received by Edison and/or  
24 San Diego.

25 9. ADMINISTRATION:

26 9.1 As a means of securing effective cooperation

1 and interchange of information, Riverside and Anaheim  
2 shall, within ten days after the execution of this  
3 Participation Agreement, designate representatives in  
4 accordance with Section 7 of the Construction  
5 Agreement.

6 9.2 The representatives of Riverside and Anaheim  
7 appointed pursuant to Section 9.1 shall have the rights  
8 and obligations set forth in Section 7 of the  
9 Construction Agreement; provided, however, that the  
10 representation of Riverside and Anaheim shall not be  
11 effective until such time as Riverside and Anaheim  
12 begin paying funds pursuant to Section 8.

13 10. LIABILITY AND INSURANCE:

14 10.1 This Participation Agreement shall be  
15 deemed to be a "Project Agreement" under the  
16 Construction Agreement and the provisions of Section 8,  
17 Project Insurance, and Section 9, Liability, of the  
18 Construction Agreement shall apply except as follows:

19 10.1.1 The term "Company" or "Companies,"  
20 when used in Sections 4.33, 8 and 9 of the Construction  
21 Agreement, shall include Edison, San Diego, Riverside,  
22 and Anaheim.

23 10.1.2 The percentages to be paid or shared  
24 as set forth in Sections 9.5 and 9.7 of the Construction  
25 Agreement shall be changed to the following:

26 10.1.2.1 Edison - 76.55%;

1 10.1.2.2 San Diego - 20.00%;

2 10.1.2.3 Riverside - 1.79%; and

3 10.1.2.4 Anaheim - 1.66%.

4 10.2 Riverside and Anaheim shall be added as  
5 named insureds on those policies of insurance presently  
6 in effect pursuant to Sections 8.1.1 and 8.3.1 of the  
7 Construction Agreement.

8 10.3 Riverside and Anaheim shall each make  
9 application to Nuclear Mutual, Ltd., to become member  
10 insureds under the policies of insurance presently in  
11 effect for San Onofre Units 2 and 3 for (i) all risk-  
12 builders' risk insurance covering loss or damage to  
13 project work under course of construction and (ii)  
14 nuclear property damage insurance.

15 10.3.1 If such application is accepted,  
16 Riverside and Anaheim shall, through the Project  
17 Director (or Operating Agent), obtain and maintain said  
18 insurance coverage in effect during their participation  
19 in the ownership of San Onofre Units 2 and 3.

20 10.3.2 If such application is not accepted,  
21 Riverside and Anaheim shall each for itself secure and  
22 maintain in effect said insurance coverage from the  
23 Nuclear Energy Liability-Property Insurance Association  
24 and the Mutual Atomic Energy Reinsurance Pool or their  
25 equivalent.

26 10.4 Riverside and Anaheim hereby release

1 Edison and San Diego from any and all liability to Riverside  
2 and Anaheim or either of them resulting from damage to or  
3 loss or use of Units 2 and 3 which is caused by or is a  
4 result of the construction, operation or maintenance of  
5 Unit 1, the Edison Switchyard, the San Diego Switchyard, the  
6 Interconnection Facilities, or any Additional Generating  
7 Units. Edison and San Diego hereby release Riverside and  
8 Anaheim from any and all liability to Edison and San Diego  
9 or either of them resulting from damage to or loss of use of  
10 Unit 1, which is caused by or is the result of the construc-  
11 tion, operation or maintenance of Units 2 or 3, or any  
12 Additional Generating Units. Except as otherwise provided  
13 in Section 9.3 of the Construction Agreement, the terms of  
14 this Section 10.4 are not applicable where a Party has com-  
15 mitted Willful Action as defined in Section 4.33 of the  
16 Construction Agreement.

17 11. NUCLEAR FUEL:

18       11.1 Supply of Nuclear Fuel: Except as provided in  
19 Section 11.3, the Project Director (or Operating Agent)  
20 shall make all arrangements for the supply of Nuclear Fuel  
21 consistent with the Nuclear Fuel Budget most recently  
22 adopted by the Coordinating Representatives. In doing so,  
23 the Project Director (or Operating Agent), acting as princi-  
24 pal on its own behalf and as agent for the other Parties  
25 shall negotiate, execute, administer, perform and enforce  
26 Nuclear Fuel Agreements as it deems necessary or appropriate.

1 All proposed Nuclear Fuel Agreements shall be submitted to  
2 the Coordinating Representatives (or other representatives  
3 established by the operating agreement for Unit 2 and Unit  
4 3) for approval, or for the purpose of informing the Coordinating  
5 Representatives if their approval is not required,  
6 prior to execution; provided, that any Nuclear Fuel Agreement  
7 may be executed by the Project Director (or Operating  
8 Agent) without its being submitted to the Coordinating  
9 Representatives so long as obligations of the Parties pursuant  
10 to such Nuclear Fuel Agreement are within and consistent  
11 with the nuclear fuel budget most recently adopted by  
12 the Coordinating Representatives (or other representatives  
13 established by the operating agreement for Unit 2 and Unit  
14 3). The Project Director (or Operating Agent) shall promptly  
15 furnish each Party with copies of all Nuclear Fuel Agreements  
16 executed as agent for such Party. If the Coordinating  
17 Representatives (or other representatives established by the  
18 operating agreement for Unit 2 and Unit 3) are unable or  
19 fail to reach unanimous approval of a Nuclear Fuel Agreement,  
20 any Party may call for submission of the matter to arbitration  
21 in accordance with Section 12.1 of the Construction  
22 Agreement (or such other section as may be provided in the  
23 operating agreement for Unit 2 and Unit 3). Pending the  
24 final decision of the arbitrator, the Project Director (or  
25 Operating Agent) is authorized and obligated to take such  
26 action with respect to the supply of Nuclear Fuel as in its

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1 discretion is necessary.

2 11.2 Costs and Financing of Nuclear Fuel: Except as  
3 provided in Section 11.3 and 11.4, all costs incurred by the  
4 Project Director (or Operating Agent) in connection with the  
5 Nuclear Fuel shall be shared by each Party in propor-  
6 tion to its Generation Entitlement Share. The costs of  
7 Nuclear Fuel shall include: (i) all costs incurred and pay-  
8 ments made by the Project Director (or Operating Agent) pur-  
9 suant to any Nuclear Fuel Agreement; and (ii) all other costs  
10 and expenses not a part of a Nuclear Fuel Agreement incurred  
11 by the Project Director (or Operating Agent) in connection  
12 with: (a) the receiving, storing, and handling of fuel as-  
13 semblies at the Plant Site; (b) the shipment of fuel assem-  
14 blies from the Plant Site; and (c) the acquisition, engineer-  
15 ing, and fuel management of Nuclear Fuel. Each Party shall  
16 own an undivided interest in all Nuclear Fuel equal to its  
17 Generation Entitlement Share, and may determine its own  
18 method of financing its share of costs and expenses associ-  
19 ated with such interest, provided that no Party shall enter  
20 into any arrangement which imposes any obligation upon any  
21 other Party or restricts or limits the rights of the other  
22 Parties to finance the costs associated with their respec-  
23 tive undivided interests. A Party may sell or assign all or  
24 part of its interest in Nuclear Fuel to any person or entity  
25 ("Fuel Lessor") for leaseback to such Party subject to the  
26 conditions that: (i) the Fuel Lessor shall waive irrevocably



1 all right to partition of such Nuclear Fuel; (ii) such Party  
2 shall indemnify all other Parties against any costs or ex-  
3 penses incurred by them because of such Party's sale and  
4 leaseback of its interest in Nuclear Fuel.

5 11.3 Special Provisions Regarding the Supply and  
6 Cost of Uranium Concentrates:

7 11.3.1 Any Party may elect to provide  
8 directly all or a portion of its share of natural  
9 uranium U308 concentrates not covered by an existing  
10 Nuclear Fuel Agreement entered into in accordance with  
11 Section 11.1; provided, however, that the maximum quantity  
12 so supplied by a Party shall be no greater than the  
13 product of its Generation Entitlement Share and the  
14 Uranium Requirements and that the minimum quantity so  
15 supplied by a Party in any single delivery shall be not  
16 less than the minimum quantity specified in Nuclear Fuel  
17 Agreement(s) for conversion services (currently 20,000 lbs.  
18 U308 Net).

19 11.3.2 An election by any Party to provide  
20 natural uranium U308 concentrates shall, in each  
21 instance, be communicated to the Project Director (or  
22 Operating Agent) sufficiently in advance so as not to  
23 interfere in any way with the Project Director's (or  
24 Operating Agent's) performance of its responsibilities  
25 under Section 11.1, and such an election shall not be  
26 allowed when submitted after the Project Director (or

1 Operating Agent) has begun, pursuant to an authorized  
2 nuclear fuel budget, to arrange for the supply of such  
3 natural uranium U308 concentrates.

4 11.3.3 Once the Project Director (or  
5 Operating Agent) has acknowledged a Party's election to  
6 provide natural uranium U308 concentrates, such Party  
7 shall be responsible for providing and delivering such  
8 natural uranium U308 concentrates, and shall extend its  
9 best efforts to fulfill such responsibility.

10 11.3.4 If, subsequent to any Party's  
11 election to supply natural uranium U308 concentrates  
12 pursuant to Sections 11.3.1 and 11.3.2, the Uranium  
13 Requirements for Unit 2 or Unit 3 change due to fuel  
14 management decisions by the Project Director (or  
15 Operating Agent), operating circumstances, decisions,  
16 or consequences, government enrichment policies, or the  
17 availability of recycle uranium and/or plutonium, then  
18 such Party shall be responsible for supplying a pro-  
19 portionate amount of any increased Uranium Requirements,  
20 or inventorying a proportionate amount of any decreased  
21 Uranium Requirements.

22 11.3.5 Where a Party chooses to provide its  
23 own natural uranium U308 concentrates, it shall bear  
24 the costs of such, and such costs shall not be included  
25 in the costs to be shared pursuant to Section 11.2. With  
26 respect to the Parties not choosing to provide their own

1 natural uranium U308 concentrates, the Project Director  
2 (or Operating Agent) shall provide such uranium concentrates  
3 as part of the supply of Nuclear Fuel, and the cost of  
4 providing such shall be shared by such Parties in  
5 proportion to their Generation Entitlement Shares.

6 11.4 Evidence of Supply of Uranium Concentrates:

7 It is recognized that failure of any Party to fulfill  
8 the responsibilities provided in Sections 11.1 or 11.3 could  
9 delay the availability of fuel and thus impair operation  
10 of Unit 2 or Unit 3. Accordingly, the following pro-  
11 visions are adopted to assure the timely and dependable  
12 availability of all natural uranium U308 concentrates  
13 required for Unit 2 and Unit 3:

14 11.4.1 One year prior to each date on which  
15 natural uranium U308 concentrates are scheduled by the  
16 Project Director (or Operating Agent) to be delivered  
17 for conversion, the Project Director (or Operating  
18 Agent) shall notify all Parties of the quantity and speci-  
19 fications of natural uranium U308 concentrates required,  
20 the date on which delivery is required, and the place at  
21 which delivery is required to be made and the quantity  
22 which each Party has a responsibility to deliver. Within  
23 one month of such notification, each Party shall provide  
24 the Project Director (or Operating Agent) and the Coordinat-  
25 ing Representatives with evidence that the Party has firm  
26 commitments for providing the required quantity and quality

1 of natural uranium U308 concentrates on or before the  
2 specified delivery dates.

3 11.4.2 If the Project Director (or Operating  
4 Agent) reasonably concludes that any such Party  
5 ("deficient Party") has not provided satisfactory  
6 evidence as required by Section 11.4.1, the Project  
7 Director (or Operating Agent) shall proceed to acquire  
8 and arrange for the delivery of the quantity of such  
9 uranium concentrates required to be provided by the  
10 deficient Party; the actual costs of acquiring such  
11 natural uranium U308 concentrates shall be billed to  
12 the deficient Party as incurred (or invoiced) and paid  
13 within five days after receipt of each such bill (or,  
14 where an invoice instead of a bill is provided to the  
15 deficient Party, within the time provided by the invoice).  
16 The Project Director (or Operating Agent) shall make a  
17 reasonable effort to acquire such natural uranium U308  
18 concentrates on terms which are reasonable in the  
19 commercial context which exists at the time of the  
20 acquisition; however, neither the Project Director (or  
21 Operating Agent) nor any Party shall have any obligation  
22 to supply such material from its own inventories of or  
23 rights to natural uranium U308 concentrates or to afford  
24 the deficient Party access to the benefits of any  
25 favorable business opportunities available to the  
26 Project Director (or Operating Agent) or any other Party;

1 and, provided further that no Party shall incur any  
2 liability to any other Party as a result of carrying out  
3 the provisions of this Section 11.4 except as provided  
4 herein.

5 11.4.3 If at any time after the provisions  
6 of Section 11.4.1 have been complied with, the Project  
7 Director (or Operating Agent) reasonably concludes that  
8 a Party's ability to provide natural uranium U308  
9 concentrates specified in a notice pursuant to Section  
10 11.4.1 is in doubt, the Project Director (or Operating  
11 Agent) shall so notify the deficient Party. If within  
12 15 days after receipt of such notice the deficient Party  
13 has not provided reasonable assurance of its ability to  
14 provide such natural uranium U308 concentrates, the  
15 Project Director (or Operating Agent) may implement the  
16 provisions of Section 11.4.2. If a Party actually fails  
17 to make a delivery required by a notice pursuant to  
18 Section 11.4.1, the Project Director (or Operating  
19 Agent) may, upon 24 hours notice to such Party, and at  
20 the deficient Party's sole cost, acquire and arrange for  
21 delivery of such natural uranium U308 concentrates on  
22 any terms which may be immediately available.

23 11.4.4 If the Project Director (or Operating  
24 Agent) is unable to acquire and arrange for delivery of  
25 natural uranium U308 concentrates to cover a deficient  
26 Party's commitment, and as a result the available cycle

1 energy in the succeeding cycle is less than it would have been had  
2 there been a full supply of natural uranium U308 concentrates, then the  
3 deficient Party shall be subjected to an appropriate reduction in its  
4 entitlement to the Net Energy Generation during such cycle.

5 11.4.5 With respect to Sections 11.4.2, 11.4.3, and 11.4.4;  
6 if the Coordinating Representatives reasonably conclude that the  
7 ability of the Project Director (or Operating Agent) acting as princi-  
8 pal on its own behalf to provide natural uranium concentrates which it  
9 is obligated to provide is in doubt, then the determinations and  
10 actions assigned to the Project Director (or Operating Agent) by  
11 those sections shall be assumed by the Coordinating Representatives.  
12 In this case the representative of the Project Director  
13 (or Operating Agent) shall not be entitled to vote on  
14 the determinations, approvals or actions under  
15 consideration.

16 11.5 Advancement of Funds for Nuclear Fuel:

17 Except as provided in Section 11.3 and 11.4, each Party  
18 shall pay to the Project Director (or Operating Agent)  
19 its proportionate share of the total amount due for the  
20 purchase of Nuclear Fuel for Unit 2 and Unit 3 in advance  
21 of the dates on which payments therefor by the Project  
22 Director (or Operating Agent) become due under any Nuclear  
23 Fuel Agreement. The operating agreement for Unit 2 and  
24 Unit 3 shall include detailed procedures for the payment  
25 of Nuclear Fuel related costs, including procedures for the  
26 allocation of costs of Nuclear Fuel where electric energy

1 delivered to the account of one or more Parties differs from the  
2 respective Generation Entitlement Shares.

3       11.6 Procedures for Control of the Supply of Nuclear Fuel: By  
4 January 1, 1978 and on each October 31 thereafter until work related to  
5 the supply of Nuclear Fuel has been completed (or until termination  
6 of the Ownership Agreement, whichever occurs sooner), the Project  
7 Director (or Operating Agent) shall submit to the Coordinating Repre-  
8 sentatives (or other representatives established by the operating agree-  
9 ment for Unit 2 and Unit 3) for review and approval, modification, or  
10 other action a revised nuclear fuel budget effective as of the succeeding  
11 January 1 in form and content approved by the Coordinating Representa-  
12 tives, divided by calendar quarter for the succeeding two years and by  
13 calendar year for at least the third, fourth, and fifth succeeding  
14 years and for such additional succeeding years as the Project Director  
15 (or Operating Agent) may, in its discretion, provide).

16       11.7 Information: The Project Director (or Operating Agent) shall  
17 keep the parties full and promptly informed as to significant matters  
18 involving the supply of Nuclear Fuel.

19       11.8 Additional Matters: The parties recognize  
20 that additional matters with respect to the supply of  
21 Nuclear Fuel, not provided for in the preceding sections  
22 of this Section 11, may require additional agreement  
23 between the Parties and agree to negotiate with respect  
24 to such additional matters as part of the San Onofre  
25 Units 2 and 3 Operating Agreement or as a separate  
26 agreement.



1 12. TAXES:

2           12.1 All taxes or assessments levied against each  
3 Party's ownership or beneficial interest in San Onofre,  
4 excepting those taxes or assessments levied against an  
5 individual Party in behalf of any or all of the other  
6 Parties, shall be the sole responsibility of the Party upon  
7 whose such ownership said taxes or assessments are  
8 levied.

9           12.2 The Parties shall use their best efforts to  
10 have any taxing authority imposing any assessments,  
11 property taxes or other taxes, excluding any  
12 sales or use taxes, assess and levy such taxes and  
13 assessments directly against the Party responsible  
14 for such tax or assessment.

15           12.3 Except as provided in Section 12.4, Riverside  
16 shall reimburse Edison or San Diego for any and all taxes  
17 which are levied on Edison or San Diego as a result of the  
18 transfer to Riverside of a portion of Edison's ownership  
19 interests in Unit 2, Unit 3, or the Common Facilities.  
20 Except as provided in Section 12.4, Anaheim shall reimburse  
21 Edison or San Diego for any and all taxes which are levied  
22 on Edison or San Diego as a result of the transfer to  
23 Anaheim of a portion of Edison's ownership interests in  
24 Unit 2, Unit 3, or the Common Facilities.

25           12.4 Taxes described in Section 12.3 shall not  
26 include any tax on capital gains which may result from



1 the transfer to Anaheim and Riverside.

2 13. RELATIONSHIP OF PARTIES:

3 13.1 The covenants, obligations and liabilities  
4 of the Parties under this Participation Agreement are  
5 intended to be several and not joint or collective,  
6 and nothing herein contained shall ever be construed  
7 to create an association, joint venture, trust or  
8 partnership, or to impose a trust or partnership  
9 covenant, obligation or liability on or with regard to  
10 any of the Parties. Each Party shall be individually  
11 responsible for its own covenants, obligations and  
12 liabilities as herein provided. No Party shall be under  
13 the control of or shall be deemed to control another  
14 Party. No Party shall have a right or power to bind  
15 another Party without its express written consent,  
16 except as expressly provided in this Participation  
17 Agreement.

18 13.2 The Parties hereby elect to be excluded from  
19 the application of Subchapter "K" of Chapter 1 of  
20 Subtitle "A" of the Internal Revenue Code of 1954 or  
21 such portion or portions thereof as may be permitted or  
22 authorized by the Secretary of the Treasury or his  
23 delegate insofar as such subchapter, or any portion  
24 or portions thereof, may be applicable to the Parties  
25 under this Participation Agreement.

26 /

1 14. TERMINATION:

2           14.1 Riverside or Anaheim may withdraw from  
3 participation in San Onofre and terminate this Partici-  
4 pation Agreement if, after using its best efforts, it  
5 is unable to obtain any required approval from regula-  
6 tory and other authorities. In the event of termination  
7 by a Party pursuant to this Section 14.1 and if  
8 construction of Units 2 and 3 is not continued by the  
9 other Parties, the accumulated Construction Costs and  
10 all other costs incurred by the terminating Party in  
11 connection with San Onofre prior to the date of  
12 termination shall be borne by such terminating Party.  
13 If construction of Units 2 and 3 is continued by  
14 the other Parties, Edison shall acquire the terminating  
15 Party's interest in San Onofre and shall reimburse such  
16 terminating Party for its incurred Construction Costs  
17 (including its allowance for funds used during  
18 construction but excluding those costs covered by  
19 Section 7.11 and the terminating Party's own administra-  
20 tive and general expenses).

21           14.2 Prior to such time as the Construction  
22 Agreement is amended pursuant to Section 6.4,  
23 and prior to the initial operation of Unit 2, this  
24 Participation Agreement may be terminated in the manner  
25 and for the reasons set forth in Section 17 of the Con-  
26 struction Agreement.

1           14.: When Edison believes the obligations of  
2 this Participation Agreement have been met, Edison shall  
3 serve notice of that fact upon the other Parties. If  
4 none of the Parties objects and notifies the other Parties  
5 of such objection within 60 days after receipt of such  
6 notice, this Participation Agreement shall then  
7 terminate.

8 15. ADDITIONAL GENERATING UNITS:

9           15.1 The Parties each reserve any rights which  
10 they may have, either by contract or by law, to  
11 participate in any Additional Generating Unit; provided,  
12 however, that Riverside and Anaheim shall be neither  
13 granted nor denied participation rights by reason of  
14 any provision of this Participation Agreement.

15           15.2 If Additional Generating Units are construc-  
16 ted, interests in the Project Easements shall be  
17 reallocated among the participants such that each  
18 participant's interest in the land area used for a  
19 specific unit or facility is the same as that partici-  
20 pant's interest in the unit or facility occupying such  
21 land area; cost responsibilities for each Project Ease-  
22 ment, including cost responsibilities for past  
23 acquisition, rental, and developmental expenses of such  
24 easement, shall be reallocated on the basis of each  
25 participant's interest in each of the units or  
26 facilities occupying such easement and the proportionate

1 land areas occupied by each unit or facility on such  
2 easement. Interests in and cost responsibilities for  
3 the Common Facilities shall be reallocated among the  
4 participants of all the units at San Onofre on the basis  
5 of the rated operating capacity of each unit and the  
6 reproduction cost new, less depreciation for said  
7 Common Facilities.

8 16. UNCONTROLLABLE FORCES: No Party shall be considered  
9 to be in breach of any of the obligations hereunder,  
10 other than the obligation to pay money, to  
11 the extent failure of performance shall be due to an  
12 uncontrollable force. The term "uncontrollable force"  
13 shall mean any cause beyond the control of a Party  
14 unable to perform such obligation, including, but not  
15 limited to, failure of facilities, flood, earthquake,  
16 storm, fire, lightning, and other natural catastrophies,  
17 epidemics, war, riot, civil disturbance, labor dispute,  
18 sabotage, government priorities, restraint by court  
19 order or public authority, and action or non-action by  
20 or inability to obtain the necessary authorizations or  
21 approvals from any government agency or authority,  
22 which by exercise of reasonable diligence and foresight  
23 such Party could not reasonably have been expected to  
24 avoid and which by exercise of reasonable diligence it  
25 has been unable to overcome. Any Party rendered unable  
26 to fulfill any obligation by reason of an uncontrollable

1 force shall exercise due diligence to remove such  
2 inability with all reasonable dispatch. Nothing  
3 contained herein shall be construed so as to require a  
4 Party to settle any strike or labor dispute in which it  
5 may be involved.

6 17. NOTICES: All notices under this Participation  
7 Agreement shall be in writing and shall be delivered  
8 in person or sent by registered or certified mail to  
9 the applicable of the following addressees:

10 Southern California Edison Company  
11 c/o Secretary  
12 P. O. Box 800  
13 Rosemead, California 91770

14 San Diego Gas & Electric Company  
15 c/o Vice President, Project Management  
16 P. O. Box 1831  
17 San Diego, California 92112

18 City of Riverside  
19 c/o Public Utilities Director  
20 3900 Main Street  
21 Riverside, California 92522

22 City of Anaheim  
23 c/o Utilities Director  
24 P. O. Box 3222  
25 Anaheim, California 92803

26 By notice sent to the other Parties, any Party may  
designate different persons or different addresses for  
the giving of notices hereunder.

18. ARBITRATION: If the Parties, acting through their  
respective Coordinating Representatives, are unable  
to reach agreement with respect to a matter herein  
specified to be approved, established, determined, or

1 resolved by agreement of the Parties, any Party may  
2 call for submission of such matter or dispute to  
3 arbitration in the manner set forth in Section 12 of  
4 the Construction Agreement, which call shall be  
5 binding upon the other Party or Parties to the dispute.  
6 The Project Director shall continue to do all things  
7 and make all expenditures necessary pending the final  
8 decision of the arbitrator.

9 19. MISCELLANEOUS PROVISIONS:

10 19.1 Edison shall, within twelve (12) months  
11 after receipt of payment pursuant to Section 8.1,  
12 procure a release of the interests transferred pur-  
13 suant to Section 6.1 from the lien of Edison's trust  
14 indenture and deliver to Riverside and to Anaheim a  
15 bill of sale covering Riverside's and Anaheim's  
16 respective ownership interests in such portion of Units  
17 2 and 3.

18 19.2 Edison shall, within twelve (12) months  
19 after receipt of payment pursuant to Section 8.5,  
20 procure a release of the interests transferred pursuant  
21 to Section 6.2 from the lien of Edison's trust indenture  
22 and deliver to Riverside and to Anaheim a bill of sale  
23 covering Riverside's and Anaheim's respective ownership  
24 interests in such portion of the Common Facilities.

25 19.3 The Parties agree to negotiate in good faith  
26 and to proceed with diligence to complete all necessary

1 definitive agreements pertaining to Units 2 and 3.

2 19.4 Unless mutually agreed or unless provided  
3 otherwise herein, no significant departures shall be  
4 made from the arrangements between Edison and San Diego  
5 for ownership, construction, operation and maintenance  
6 of Units 2 and 3 or, where no such arrangements exist  
7 for Units 2 and 3, the arrangements under which Edison  
8 and San Diego have participated in Unit 1.

9 19.5 Each Party shall be responsible for making  
10 arrangements necessary to transmit its entitlement of  
11 San Onofre power from San Onofre to its electric system.

12 19.6 Except as provided in Section 6.8,  
13 Riverside and Anaheim each shall be responsible for  
14 obtaining, at its own expense, its required  
15 authorizations and approvals, if any, relating to its  
16 participation in the construction or reconstruction  
17 and operation of San Onofre and to its performance  
18 of the provisions of this Participation Agreement,  
19 from federal, state, or local regulatory authorities  
20 having jurisdiction to issue such authorizations and  
21 approvals, and shall keep the Project Director and  
22 Operating Agent informed of its applications therefor.

23 19.7 The Parties do not intend to dedicate and  
24 nothing in this Participation Agreement shall be con-  
25 strued as constituting a dedication by any Party of  
26 its properties or facilities, or any part thereof, to

1 any other Party or to the customers of any Party.

2 19.8 For itself and its successors and assigns,  
3 Edison, San Diego, Riverside and Anaheim, each, until  
4 expiration or termination of the Ownership Agreement  
5 as it may be amended from time to time, waives the  
6 right to seek partition of San Onofre and the Project  
7 Easements (whether by partitionment in kind or by sale  
8 and division of the proceeds thereof). Edison, San Diego,  
9 Riverside and Anaheim, each further agrees that it will  
10 not resort to any action at law or in equity to partition  
11 the same (in either such manner) and to that extent  
12 waives the benefits of all laws that may now or hereafter  
13 authorize such partition.

14 19.9 If a Party desires to assign to another  
15 Party any or all of its interest in Unit 2 or Unit 3,  
16 the provisions of Section 8 of the  
17 Ownership Agreement shall not apply. If a Party desires  
18 to assign to an entity other than another Party any or  
19 all of its interest in Unit 2 or Unit 3, the other  
20 Parties each shall have the right of first refusal, as  
21 provided by the Ownership Agreement, to purchase such  
22 interest in proportion to the respective Generation  
23 Entitlement Shares of the Parties seeking to exercise  
24 the right of first refusal.

25 19.10 Riverside and Anaheim each represent and  
26



1 warrant that it has obtained all necessary approvals,  
2 including voter approval if required, for its project  
3 contractual undertakings including this Participation  
4 Agreement and for its means of financing its  
5 participation in the construction, operation and  
6 maintenance of Units 2 and 3 and that it has legal  
7 authority to enter into and be bound by all of its  
8 project contractual undertakings including this  
9 Participation Agreement.

10 19.11 Riverside and Anaheim shall have the right  
11 to audit the books and records of Edison directly  
12 pertaining to Units 2 and 3, the Common Facilities, and  
13 the Plant Site. Should any audit reveal errors,  
14 omissions or items not properly chargeable to Units 2  
15 and 3, the Common Facilities and the Plant Site or to  
16 Riverside and Anaheim in the amounts billed, appropriate  
17 adjustment shall be made.

18 19.12 Effectiveness of this Participation Agree-  
19 ment shall be subject to its being accepted for filing  
20 by the regulatory agency having jurisdiction.

21 IN WITNESS WHEREOF, the Parties have caused this  
22 Participation Agreement to be executed on their behalf  
23 and the signatories hereto represent that they have  
24 been duly authorized to enter into this Participation  
25 Agreement on behalf of the Party for whom they sign.  
26 /

Executed as of the 1st day of November, 1977.

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ATTEST:

SOUTHERN CALIFORNIA EDISON COMPANY

By \_\_\_\_\_

ATTEST:

SAN DIEGO GAS & ELECTRIC COMPANY

By \_\_\_\_\_

ATTEST:

CITY OF RIVERSIDE

By \_\_\_\_\_

ATTEST:

CITY OF ANAHEIM

By \_\_\_\_\_

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S

A. T. & S.

ACCESS

U. S.

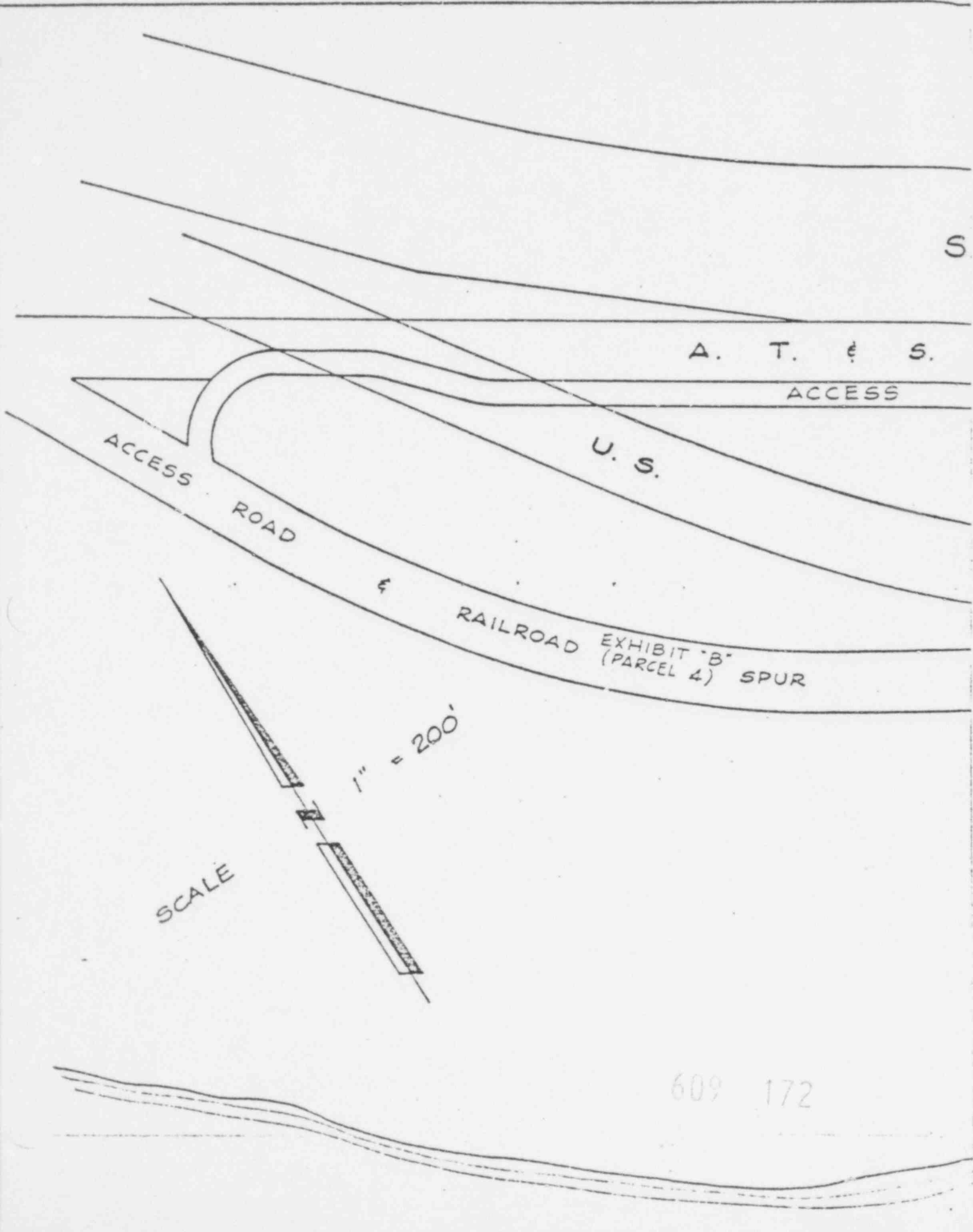
ACCESS ROAD

RAILROAD EXHIBIT "B"  
(PARCEL 4) SPUR

1" = 200'

SCALE

609 172



SAN DIEGO

S. F.

ACCESS ROAD EXHIBIT "B" (PARCEL 3)

HWY.

SW'LY LINE U.S. HIGHWAY 101 - REALIG  
NELY LINE LAND DESCRIBED IN OR.

COMMON FACILIT  
EXHIBIT  
(PARCEL

RESERVOIR

UNIT 1

UNIT 1 AREA  
EXHIBIT "D"  
(PARCEL 1)

COM  
FAC  
EX  
CP

609 173

PACIFIC

(INTERSTATE HWY. XI-SD-5)

RY.

101

HWY 101 - REALIGNED

DESCRIBED IN OR. 1964-85887

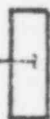
COMMON FACILITIES AREA  
EXHIBIT "B"  
(PARCEL 1)

SWITCHYARD AREA  
EXHIBIT "C"



AREA  
- "D"  
!

COMMON  
FACILITIES AREA  
EXHIBIT "B"  
(PARCEL 2)



UNITS 2 & 3 AREA  
EXHIBIT "E"  
(PARCEL 1)

609 174

OFFSHORE LAND  
EXHIBIT "D"  
(PARCEL 2)

FREEWAY

R/W

(STATE HWY XI-5D-2D)

TCHYALD AREA  
HIBIT "C"

COMMON FA  
EXHIB  
(PAR

UNIT 3

263 AREA  
HIBIT "E"  
(PARCEL 1)

609 175

OCEAN

FREEWAY

R/W

COMMON FACILITIES AREA  
EXHIBIT "B"  
(PARCEL 1)

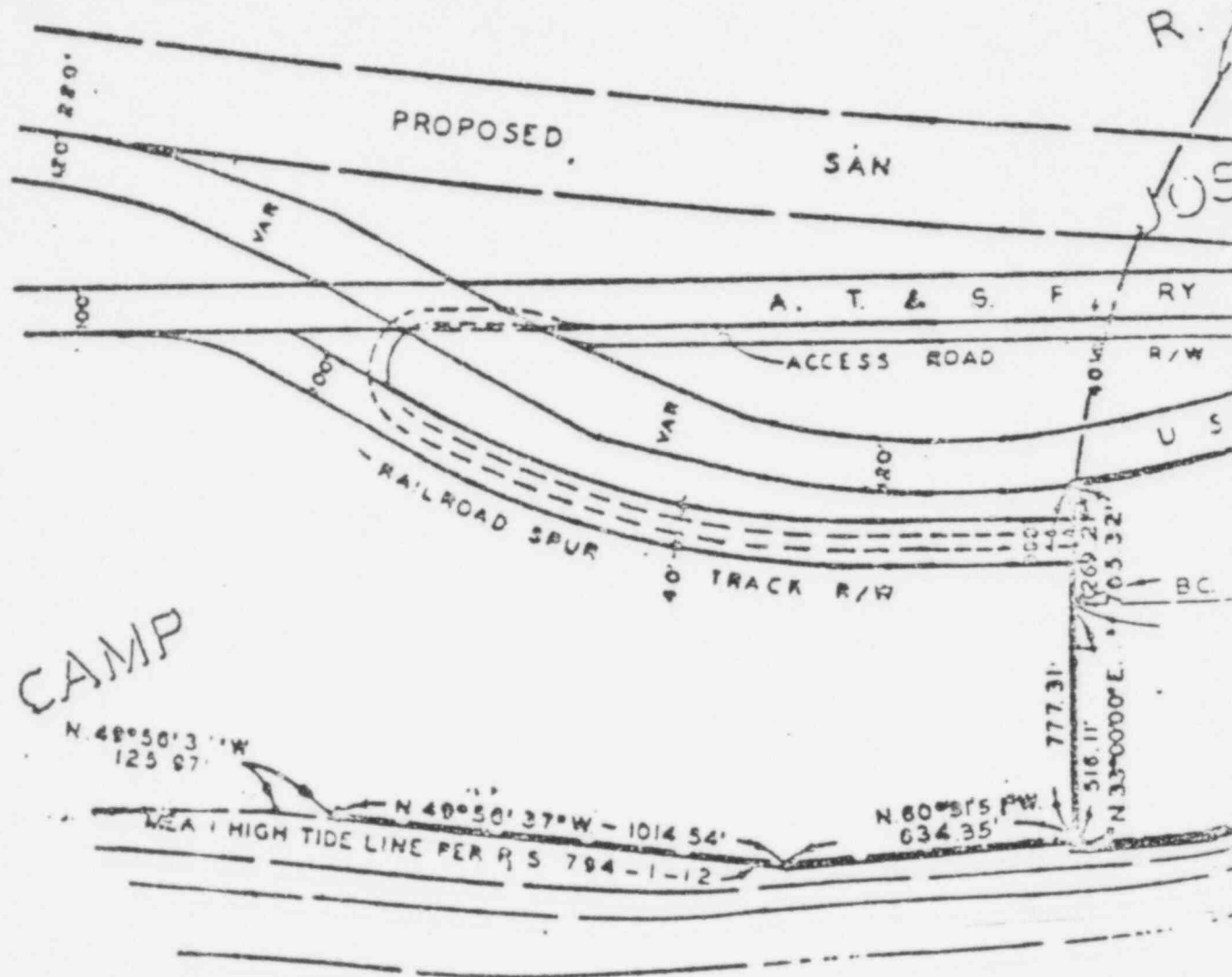
EXHIBIT 'A'

SAU OMOFRE NUCLEAR GENERATING STATION

MAP SHOWING PARCELS OF LAND AS  
DESCRIBED IN PARTICIPATION  
AGREEMENT. 609 176

AUGUST 15, 1977

1/6



N 48° 56' 37" W  
125.87'

N 48° 56' 37" W - 1014.54'

N 60° 51' 5" W  
634.35'

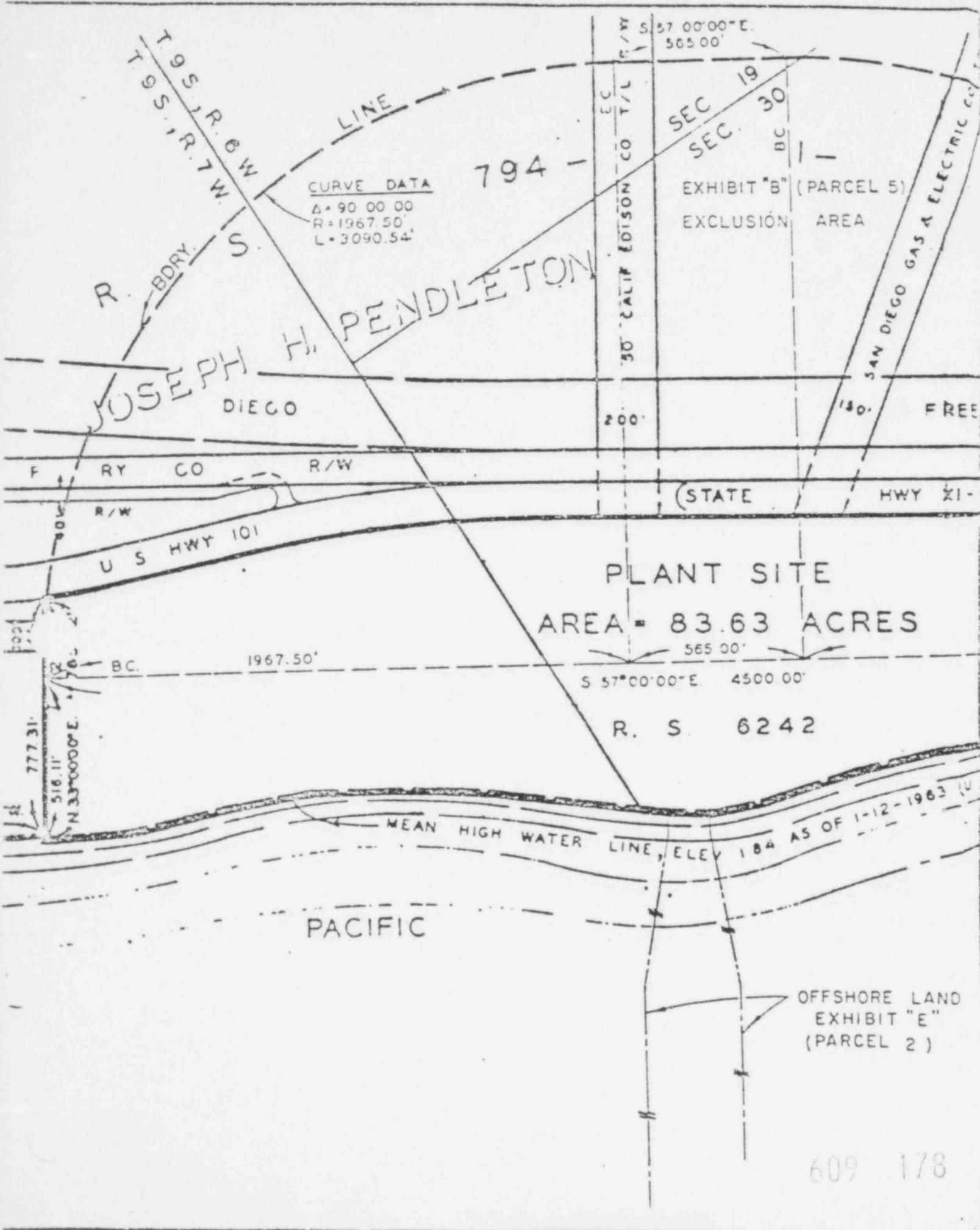
777.31'

516.11'

N 33° 00' 00" E  
765.32'

609 177





T 9 S. R. 6 W  
T 9 S. R. 7 W

CURVE DATA  
 $\Delta = 90^{\circ} 00' 00''$   
 $R = 1967.50'$   
 $L = 3090.54'$

794 -

S 57 00' 00" E.  
565 00'

SEC 19  
SEC 30

EXHIBIT "B" (PARCEL 5)  
EXCLUSIÓN AREA

SAN DIEGO GAS & ELECTRIC CO.

JOSEPH H. PENDLETON

DIEGO

200'

FREE

F RY CO R/W

(STATE HWY 21-

U S HWY 101

PLANT SITE

AREA = 83.63 ACRES

565 00'

S 57 00' 00" E. 4500 00'

R. S. 6242

777.31'  
516.11'  
N 33 00' 00" E. 765.2'

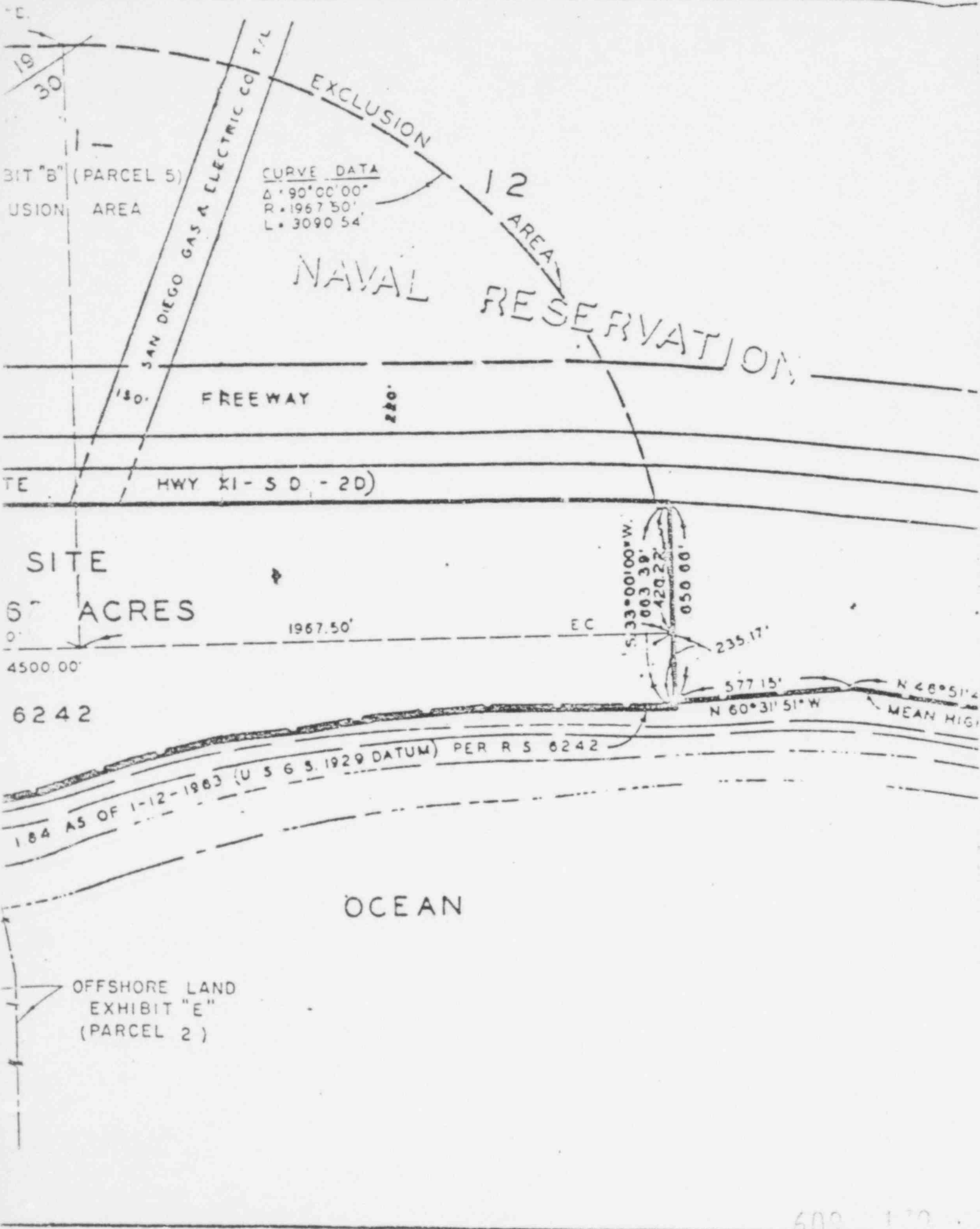
BC. 1967.50'

MEAN HIGH WATER LINE, ELEV 184 AS OF 1-12-1983

PACIFIC

OFFSHORE LAND  
EXHIBIT "E"  
(PARCEL 2)

609 178



BIT "B" (PARCEL 5)  
 USION AREA

CURVE DATA  
 $\Delta = 90^{\circ}00'00"$   
 $R = 1967.50'$   
 $L = 3090.54'$

12 AREA

NAVAL RESERVATION

FREEWAY

HWY XI - S D - 20

SITE  
 6 ACRES

1967.50'

EC

4500.00'

6242

533.00' 00" W  
 603.39'  
 420.22'  
 050.00'

235.17'

577.15'

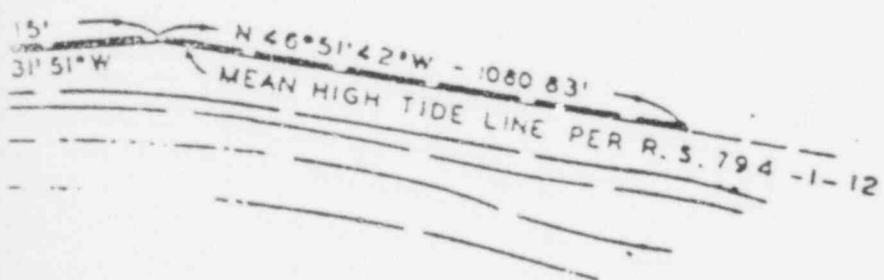
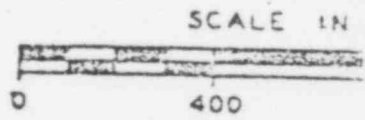
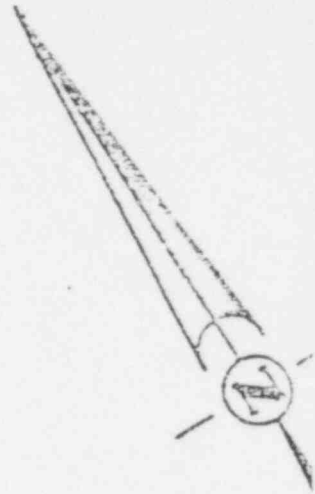
$N 60^{\circ}31'51" W$

$N 48^{\circ}51'4"$   
 MEAN HIGH

184 AS OF 1-12-1963 (U S G S. 1929 DATUM) PER R S 6242

OCEAN

OFFSHORE LAND  
 EXHIBIT "E"  
 (PARCEL 2)



BASIS OF BEARINGS PER C  
COORDINATES (LAMBERT)

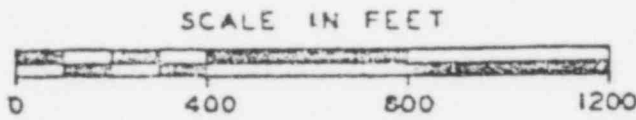
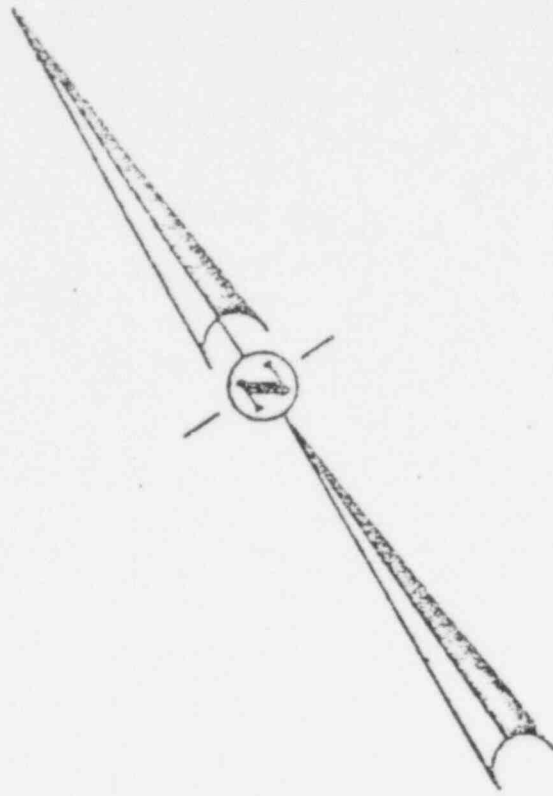
E

SAU QUOR

609 180

MAP SHO  
DESCRIB  
AGREEN

AUGUST 15, 1977



120 100 220 1

R. S. 794 -1-12

BASIS OF BEARINGS PER CALIFORNIA STATE COORDINATES (LAMBERT) ZONE VI

609 181

# EXHIBIT 'A'

SAU OUDERE NUCLEAR GENERATING STATION

MAP SHOWING PARCELS OF LAND AS DESCRIBED IN PARTICIPATION AGREEMENT.

AUGUST 15, 1977

SHEET 2 OF 2

COMMON FACILITIES AREA

That certain real property in the County of San Diego, State of California, described as follows:

PARCEL 1:

That portion of the Rancho Santa Margarita y Las Flores, as described in the Patent from the United States of America, dated March 28, 1879 and recorded in Book 7, page 18 et seq., of Patents in the office of the County Recorder of said County, being also portions of Section 24 in Township 9 South, Range 7 West, and Section 30 in Township 9 South, Range 6 West, as shown on Record of Survey Map No. 6242 filed June 13, 1963 in the office of said County Recorder, described as follows:

Beginning at a 6 inch by 6 inch concrete highway monument, set in the Southwesterly line of U. S. Highway 101, said monument being North  $56^{\circ} 12' 04''$  West 2123.77 feet, measured along said Southwesterly line, from a 6 inch by 6 inch concrete highway monument, said first above mentioned concrete highway monument bears South  $02^{\circ} 52' 15''$  East 4207.25 feet from a 1-1/2 inch iron pipe, with brass cap, set for the Northeast corner of Section 24 in Township 9 South, Range 7 West, as shown on said Record of Survey Map, said first above mentioned concrete highway monument being also at the beginning of a tangent curve, concave Southwesterly and having a radius of 4940 feet; thence Northwesterly along said curve, through an angle of  $12^{\circ} 00' 00''$ , a distance of 1034.63 feet; thence continuing along said Southwesterly line and tangent to said last mentioned curve, North  $68^{\circ} 12' 04''$  West, 503.81 feet to the beginning of a tangent curve, concave to the Northeast and having a radius of 2060 feet; thence Northwesterly, along said last mentioned curve, through an angle of  $04^{\circ} 54' 28''$  a distance of 176.47 feet to a point, a radial line of said last mentioned curve passing through said last mentioned point bears South  $26^{\circ} 42' 24''$  West; thence South  $33^{\circ} 00' 00''$  West, 785.32 feet to the Mean High Tide Line of the Pacific Ocean; thence Southeasterly, along said Mean High Tide Line of the Pacific Ocean to a line that is parallel with and 4500 feet Southeasterly, measured at right angles, from the course hereinabove described as having a bearing of South  $33^{\circ} 00' 00''$  West and a length of 785.32 feet; thence North  $33^{\circ} 00' 00''$  East, along said parallel line, 663.39 feet to a point in said Southwesterly line of U. S. Highway 101, said last mentioned point being in a curve in said Southwesterly line, said curve being concave Southwesterly and having a radius of 11,440 feet and being also tangent to the course hereinabove described as having a bearing of North  $56^{\circ} 12' 04''$  West and a length of 2123.77 feet, a radial line to said curve passing through said last mentioned point bears North  $37^{\circ} 12' 19''$  East; thence Northwesterly, along said curve,

through an angle of  $03^{\circ} 24' 23''$ , a distance of 680.14 feet to the second above mentioned 6 inch by 6 inch concrete highway monument; thence North  $56^{\circ} 12' 04''$  West, 2123.77 feet to the Point of Beginning.

EXCEPTING THEREFROM that portion thereof described as follows:

That portion of the Rancho Santa Margarita y Las Flores, described in Patent from the United States of America, dated March 28, 1879, and recorded in Book 7, page 18 et seq., of Patents in the office of the County Recorder of the County of San Diego, and being also a portion of Section 24, Township 9 South, Range 7 West, as shown on Record of Survey Map No. 6242, filed June 13, 1963, in said office of the County Recorder, described as follows:

Beginning at a point in the Northwesterly boundary line of the land described in that certain Grant of Easement from the United States of America, Secretary of the Navy, to Southern California Edison Company and San Diego Gas and Electric Company, on May 12, 1964, recorded in Series 5, Book 1964, Page No. 85887, of Official Records in said office of the County Recorder, said land being also shown on said Record of Survey Map No. 6242, said point being South  $33^{\circ} 00' 00''$  West, 143.21 feet, measured along said Northwesterly boundary line, from the Northwesterly corner thereof; thence the following courses and distances: South  $57^{\circ} 00' 00''$  East, 102.80 feet; South  $68^{\circ} 59' 50''$  East, 434.90 feet; South  $07^{\circ} 00' 56''$  East, 167.65 feet; South  $57^{\circ} 00' 00''$  East, 208.00 feet; North  $33^{\circ} 00' 00''$  East, 22.50 feet; North  $73^{\circ} 57' 20''$  East, 35.09 feet; South  $57^{\circ} 00' 00''$  East, 121.00 feet; South  $12^{\circ} 00' 00''$  East, 80.61 feet; South  $57^{\circ} 00' 00''$  East, 145.00 feet; South  $12^{\circ} 00' 00''$  East, 79.20 feet; South  $57^{\circ} 00' 00''$  East, 75.73 feet; South  $04^{\circ} 55' 29''$  West, 60.07 feet; South  $57^{\circ} 00' 00''$  East, 134.00 feet and South  $33^{\circ} 00' 00''$  West, 375.00 feet to a point in the Southwesterly boundary line of said land, said point being North  $52^{\circ} 00' 51''$  West, 03.62 feet, measured along said Southwesterly boundary line, from the Southeasterly terminus of that certain course shown as having a bearing of "South  $52^{\circ} 00' 51''$  East" and a distance of "299.95 feet" as shown on Record of Survey Map No. 6242; thence along said Southwesterly boundary line the following courses and distances: North  $52^{\circ} 00' 51''$  West, 296.33 feet; North  $58^{\circ} 35' 26''$  West, 289.39 feet; North  $65^{\circ} 56' 29''$  West, 300.23 feet; North  $68^{\circ} 16' 51''$  West, 301.02 feet and North  $61^{\circ} 30' 25''$  West, 300.74 feet to said Northwesterly boundary line of the land shown on Record of Survey Map No. 6242; thence along said Northwesterly boundary line North  $33^{\circ} 00' 00''$  East, 642.11 feet to the Point of Beginning.

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SAN ONOFRE UNITS 2  
AND 3 PARTICIPATION AGREEMENT

AMONG

SOUTHERN CALIFORNIA EDISON COMPANY  
SAN DIEGO GAS & ELECTRIC COMPANY  
CITY OF RIVERSIDE  
CITY OF ANAHELM

609 184



ALSO EXCEPTING THEREFROM that portion thereof described as follows:

That portion of the Rancho Santa Margarita y Las Flores, described in Patent from the United States of America, dated March 28, 1879 and recorded in Book 7, page 18 et seq. of Patents in the office of the County Recorder of the County of San Diego, and being also portions of Section 24, Township 9 South, Range 7 West and Section 30, Township 9 South, Range 6 West, as shown on Record of Survey Map No. 6242, filed June 13, 1963, in said office of the County Recorder, described as follows:

Beginning at a 6 inch by 6 inch concrete highway monument set in the Northeasterly boundary line of the land described in that certain Grant of Easement from the United States of America, Secretary of the Navy, to Southern California Edison Company and San Diego Gas and Electric Company, on May 12, 1964, recorded in Series 5, Book 1964, Page No. 85887 of Official Records, in said office of the County Recorder, said land being also shown on said Record of Survey Map No. 6242, said concrete highway monument being also the Northwesterly terminus of that certain course shown as having a bearing of "North 56° 12' 04" West" and a distance of "2123.77 feet" on said Record of Survey Map No. 6242; thence Northwesterly, tangent to said last mentioned course along a curve concave Southwesterly, having a radius of 4940.00 feet, through a central angle of 00° 25' 46", a distance of 37.02 feet to the intersection of a non-tangent curve concave Southeasterly, having a radius of 135.00 feet, a radial line of said last mentioned curve passing through said point bears North 46° 45' 03" West; thence Southwesterly along said curve through a central angle of 09° 25' 25", a distance of 22.20 feet to a point in a reverse curve concave Northwesterly, having a radius of 135.00 feet; thence Southwesterly along said last mentioned curve through a central angle of 54° 17' 57", a distance of 127.94 feet to a point, a radial line of said curve passing through said point bears South 01° 52' 30" East; thence the following courses and distances: South 33° 00' 00" West, 45.00 feet; South 57° 00' 00" East, 45.00 feet; South 33° 00' 00" West, 123.00 feet; South 57° 00' 00" East, 1095.00 feet; North 33° 00' 00" East, 12.00 feet; South 57° 00' 00" East, 185.51 feet; North 06° 06' 31" East, 80.73 feet; and North 13° 18' 05" East, 211.24 feet to a point in the Northeasterly boundary line of the land shown on said Record of Survey Map No. 6242; thence along said Northeasterly boundary line, North 56° 12' 04" West, 1121.00 feet to the point of beginning.

ALSO EXCEPTING THEREFROM that portion thereof described as follows:



That portion of the Rancho Santa Margarita y Las Flores, described in Patent from the United States of America, dated March 28, 1879 and recorded in Book 7, page 18 et seq. of Patents in the office of the County Recorder of the County of San Diego, and being also portions of Section 24, Township 9 South, Range 7 West and Section 30, Township 9 South, Range 6 West, as shown on Record of Survey Map No. 6242, filed June 13, 1963, in said office of the County Recorder, described as follows:

Beginning at a 6 inch by 6 inch concrete highway monument set in the Northeasterly boundary line of the land described in that certain Grant of Easement from the United States of America, Secretary of the Navy, to Southern California Edison Company and San Diego Gas and Electric Company, on May 12, 1964, recorded in Series 5, Book 1964, Page No. 85887 of Official Records, in said office of the County Recorder, said land being also shown on said Record of Survey Map No. 6242, said concrete highway monument being also the Northwesterly terminus of that certain course shown as having a bearing of "North 56° 12' 04" West" and a distance of "2123.77 feet" on said Record of Survey Map No. 6242; thence Northwesterly, tangent to said last mentioned course along a curve concave Southwesterly, having a radius of 4940.00 feet, through a central angle of 00° 25' 46", a distance of 37.02 feet to the intersection of a non-tangent curve concave Southeasterly, having a radius of 135.00 feet, a radial line of said last mentioned curve passing through said point bears North 46° 45' 03" West; thence Southwesterly along said curve through a central angle of 09° 25' 25", a distance of 22.20 feet to a point in a reverse curve concave Northwesterly, having a radius of 135.00 feet; thence Southwesterly along said last mentioned curve through a central angle of 54° 17' 57", a distance of 127.94 feet to a point, a radial line of said curve passing through said point bears South 01° 52' 30" East; thence South 33° 00' 00" West, 45.00 feet; thence South 57° 00' 00" East, 45.00 feet; thence South 33° 00' 00" West, 123.00 feet to the TRUE POINT OF BEGINNING of this description; thence the following courses and distances: South 57° 00' 00" East, 1095.00 feet; North 33° 00' 00" East, 12.00 feet; South 57° 00' 00" East, 185.51 feet; South 06° 06' 31" West, 76.25 feet; South 35° 36' 25" East, 208.36 feet; South 33° 00' 00" West, 102.00 feet; North 64° 48' 28" West, 301.80 feet and South 33° 00' 00" West, 245.30 feet to a point in the Southwesterly boundary line of the land shown on said Record of Survey Map No. 6242; thence along said Southwesterly boundary line the following courses and distances: North 68° 35' 07" West, 172.49 feet; North 73° 50' 00" West, 301.73 feet; North 65° 24' 53" West, 169.60 feet; North 57° 24' 41" West, 146.24 feet; North 49° 34' 15" West, 300.24 feet; North 50° 06' 17" West, 300.13 feet and North 52° 00'

EXHIBIT "B"

51" West, 03.62 feet to a point in said Southwesterly boundary line which is South 52° 00' 51" East, 296.33 feet, from the Northwesterly terminus of that certain course shown as having a bearing of "South 52° 00' 51" East" and a distance of "299.95 feet"; thence leaving said Southwesterly boundary line North 33° 00' 00" East, 426.00 feet; thence South 57° 00' 00" East, 161.00 feet; thence North 33° 00' 00" East, 167.00 feet to the true point of beginning.

PARCEL 2:

That portion of the Rancho Santa Margarita y Las Flores, described in Patent from the United States of America, dated March 28, 1879, and recorded in Book 7, page 18 et seq., of Patents in the office of the County Recorder of the County of San Diego, and being also a portion of Section 24, Township 9 South, Range 7 West, as shown on Record of Survey Map No. 6242, filed June 13, 1963, in said office of the County Recorder, described as follows:

Beginning at a point in that certain course having a bearing of "South 52° 00' 51" East" and a distance of "299.95 feet" in the Southwesterly boundary line of the land shown on Record of Survey Map No. 6242, filed June 13, 1963 in the office of the County Recorder of San Diego County, said point being North 52° 00' 51" West, 03.62 feet from the Southeasterly terminus of said certain course; thence North 33° 00' 00" East, 105.00 feet; thence North 57° 00' 00" West, 10.00 feet to the TRUE POINT OF BEGINNING of this description; thence continuing North 57° 00' 00" West, 40.00 feet; thence North 33° 00' 00" East, 110.00 feet; thence South 57° 00' 00" East, 40.00 feet and thence South 33° 00' 00" West, 110.00 feet to the true point of beginning.

PARCEL 3A (Access Road):

A strip of land, Forty (40) feet wide, the centerline of which is hereinafter described, lying within the Rancho Santa Margarita y Las Flores, as described in the Patent from the United States of America, dated March 28, 1879 and recorded in Book 7, page 18 et seq., of patents in the office of the County Recorder of said County, and being also a portion of Section 24, Township 9 South, Range 7 West, as per Record of Survey Map No. 6242 filed June 13, 1963 in the office of said County Recorder.

The centerline of said strip of land is described as follows:

Beginning at a 6 inch by 6 inch concrete highway monument, set in the Southwesterly line of U. S. Highway 101, said monument being North  $56^{\circ} 12' 04''$  West, 2123.77 feet, measured along said Southwesterly line, from a 6 inch by 6 inch concrete highway monument, said first above mentioned concrete highway monument bears South  $02^{\circ} 52' 15''$  East, 4207.25 feet from a 1-1/2 inch iron pipe, with brass cap, set for the Northeast corner of Section 24 in Township 9 South, Range 7 West, as shown on said Record of Survey Map, said first above mentioned concrete highway monument being also at the beginning of a tangent curve concave Southwesterly and having a radius of 4940 feet; thence Northwesterly, along said curve, through an angle of  $12^{\circ} 00' 00''$ , a distance of 1034.63 feet; thence continuing along said Southwesterly line and tangent to said last mentioned curve, North  $68^{\circ} 12' 04''$  West, 503.81 feet to the beginning of a tangent curve concave to the Northeast and having a radius of 2060 feet; thence Northwesterly, along said last mentioned curve, through an angle of  $04^{\circ} 54' 28''$  a distance of 176.47 feet to a point, a radial line of said last mentioned curve passing through said last mentioned point bears South  $26^{\circ} 42' 24''$  West; thence South  $33^{\circ} 00' 00''$  West, 118.21 feet to the TRUE POINT OF BEGINNING of this description; thence North  $57^{\circ} 00' 00''$  West, 473.57 feet to the beginning of a tangent curve concave Northeasterly and having a radius of 1912.67 feet; thence Northwesterly, along said last mentioned curve, through an angle of  $29^{\circ} 47' 14''$  a distance of 994.37 feet; thence tangent to said last mentioned curve, North  $27^{\circ} 12' 46''$  West, 65.16 feet to the beginning of a tangent curve concave to the Southeast and having a radius of 129.64 feet; thence Northwesterly, Northerly and Easterly, along said last mentioned curve through an angle of  $151^{\circ} 00' 41''$  a distance of 341.68 feet; thence tangent to said last mentioned curve, South  $56^{\circ} 12' 04''$  East, 152.16 feet, to the beginning of a tangent curve concave to the Southwest and having a radius of 100.00 feet; thence Southeasterly along said last mentioned curve, through an angle of  $14^{\circ} 38' 12''$ , a distance of 25.55 feet; thence tangent to said last mentioned curve, South  $41^{\circ} 33' 52''$  East, 161.32 feet to the beginning of a tangent curve concave to the Northeast and having a radius of 100.00 feet; thence Southeasterly, along said last mentioned curve through an angle of  $14^{\circ} 38' 12''$ , a distance of 25.55 feet; thence tangent to said last mentioned curve, South  $56^{\circ} 12' 04''$  East, 1651.27 feet to the beginning of a tangent curve concave to the Northeast and having a radius of 100.00 feet; thence Southeasterly along said last mentioned curve through an angle of  $09^{\circ} 48' 07''$  a distance of 17.11 feet; thence tangent to said last mentioned curve, South  $66^{\circ} 00' 11''$  East, 153.29 feet to the beginning of a tangent curve concave Southwesterly and having a radius of 60.00 feet; thence Southeasterly and Southerly along said last mentioned curve, through an angle of  $90^{\circ} 00' 00''$ , a distance of 94.25 feet to a point hereinafter referred to as Point "A";

thence tangent to said last mentioned curve, South 23° 59' 49" West, 33 feet to a point in the Northeasterly line of U. S. Highway 101, said last mentioned point being in a curve in said Northeasterly line, said curve being concave Southwesterly and having a radius of 5060 feet, a radial line to said last mentioned curve passing through said last mentioned point bears North 23° 59' 49" East, said last mentioned point being Easterly 194.13 feet measured along said Northeasterly line from a 6 inch by 6 inch concrete highway monument, said highway monument bears South 10° 20' 14" West, 3668.46 feet from a 1-1/2 inch iron pipe with brass cap, set for the Northeast corner of said Section 24.

The side lines of said strip of land, hereinabove described and designated as Parcel 3A, shall be prolonged or shortened so as to terminate in the Northeasterly line of said U. S. Highway 101.

PARCEL 3B (Access Road):

That portion of the Rancho Santa Margarita y Las Flores, as described in the patent from the United States of America, dated March 28, 1879 and recorded in Book 7, page 18 et seq., of Patents in the office of the County Recorder of said County and being also a portion of Section 24 in Township 9 South, Range 7 West, as shown on the Record of Survey Map No. 6242, filed June 13, 1963 in the office of said County Recorder, described as follows:

Beginning at Point "A" hereinabove referred to in the centerline description of the strip of land hereinabove described and designated as Parcel 3A; thence South 66° 00' 11" East, 20 feet to the beginning of a non-tangent curve concave to the East and having a radius of 40.00 feet; thence Southerly along said curve through an angle of 55° 32' 58" a distance of 38.78 feet to a point in the Northeasterly line of U. S. Highway 101, said last mentioned point being in a curve concave to the South and having a radius of 5060 feet, a radial line of said last mentioned curve passing through said last mentioned point bears North 24° 25' 12" East; thence Westerly along said last mentioned curve through an angle of 00° 50' 46" a distance of 74.72 feet to a point, a radial line of said last mentioned curve passing through said last mentioned point bears North 23° 34' 26" East, said last mentioned point being also at the beginning of a non-tangent curve concave to the West and having a radius of 40.00 feet; thence Northerly along said last mentioned curve through an angle of 55° 32' 58" a distance of 38.78 feet to a point, a radial line to said last mentioned curve passing through said last mentioned point bears South 66° 00' 11" East; thence South 66° 00' 11" East, 20 feet to the point of beginning.



EXCEPTING from the land hereinabove described and designated as Parcel 3B that portion thereof lying within the strip of land hereinabove described and designated as Parcel 3A.

PARCEL 4 (Spur Track Area):

A strip of land, One Hundred (100) feet wide, lying Forty-seven and one-half (47.5) feet Northeasterly and Fifty-two and one-half (52.5) feet Southwesterly of the hereinafter described reference line, said strip of land lying within the Rancho Santa Margarita y Las Flores, as described in the Patent from the United States of America, dated March 28, 1879 and recorded in Book 7, page 18 et seq., of Patents in the office of the County Recorder of said County, and being also a portion of Section 24 in Township 9 South, Range 7 West, as shown on the Record of Survey Map No. 6242, filed June 13, 1963 in the office of said County Recorder.

The reference line referred to above is described as follows:

Beginning at a 6 inch by 6 inch concrete highway monument, set in the Southwesterly line of U. S. Highway 101, said monument being North  $56^{\circ} 12' 04''$  West, 2123.77 feet, measured along said Southwesterly line, from a 6 inch by 6 inch concrete highway monument, said first above mentioned concrete highway monument bears South  $02^{\circ} 52' 15''$  East, 4207.25 feet from a 1-1/2 inch iron pipe, with brass cap, set for the Northeast corner of Section 24 in Township 9 South, Range 7 West, as shown on said Record of Survey Map, said first above mentioned concrete highway monument being also at the beginning of a tangent curve concave Southwesterly and having a radius of 4940 feet; thence Northwesterly, along said curve, through an angle of  $12^{\circ} 00' 00''$ , a distance of 1034.63 feet; thence continuing along said Southwesterly line and tangent to said last mentioned curve, North  $68^{\circ} 12' 04''$  West, 503.81 feet to to the beginning of a tangent curve concave to the Northeast and having a radius of 2060 feet; thence Northwesterly, along said last mentioned curve, through an angle of  $04^{\circ} 54' 28''$  a distance of 176.47 feet to a point, a radial line of said last mentioned curve passing through said last mentioned point bears South  $26^{\circ} 42' 24''$  West; thence South  $33^{\circ} 00' 00''$  West, 115.71 feet to the TRUE POINT OF BEGINNING of this description; thence North  $57^{\circ} 00' 00''$  West, 473.57 feet to the beginning of a tangent curve concave Northeasterly and having a radius of 1910.17 feet; thence Northwesterly along said last mentioned curve, through an angle of  $29^{\circ} 47' 14''$  a distance of 993.07 feet; thence tangent to said last mentioned curve North  $27^{\circ} 12' 46''$  West, 456.60 feet to the beginning of a tangent curve concave Southwesterly and having a radius of 573.69 feet; thence Northwesterly along said last mentioned curve through an angle of  $20^{\circ} 00' 00''$  a distance of 200.26 feet to the

beginning of a compound curve concave Southwesterly and having a radius of 736.76 feet; thence Northwesterly along said last mentioned curve through an angle of  $8^{\circ} 59' 18''$  115.59 feet to a point in the centerline of the 100 foot right of way of The Atchison, Topeka and Santa Fe Railway Company, said point being North  $56^{\circ} 12' 04''$  West, 700 feet, measured along said last mentioned centerline from its intersection with the centerline of U. S. Highway 101 (140 feet wide).

PARCEL 5 (Exclusion Area):

That portion of the Rancho Santa Margarita y Las Flores, as described in the Patent from the United States of America, dated March 28, 1879, and recorded in Book 7, page 18 et seq., of Patents, in the office of the County Recorder of said County and being also portions of Sections 19 and 30 in Township 9 South, Range 6 West, and of Section 24 in Township 9 South, Range 7 West, as shown on a Record of Survey Map No. 6242 filed June 13, 1963 in the office of said County Recorder described as follows:

Beginning at the Southwest corner of the 83.63 Acre parcel of land, shown on said Map filed on June 13, 1963 as Map No. 6242 of Records of Survey in the office of said County Recorder; thence North  $33^{\circ} 00' 00''$  East, along the Northwesterly boundary line of said 83.63 Acre parcel, a distance of 516.11 feet to the beginning of a tangent curve concave Southerly and having a radius of 1967.50 feet; thence Northerly and Easterly along said curve, through an angle of  $90^{\circ}$ , a distance of 3090.54 feet; thence South  $57^{\circ} 00' 00''$  East, 565.00 feet to the beginning of a tangent curve concave Westerly and having a radius of 1967.50 feet; thence Easterly and Southerly along said last mentioned curve, through an angle of  $90^{\circ}$ , a distance of 3090.54 feet to a point in the Southeasterly boundary line of said 83.63 Acre parcel; thence along said Southeasterly boundary line and tangent to said last mentioned curve South  $33^{\circ} 00' 00''$  West, 235.17 feet to the Southeast corner of said 83.63 Acre parcel; thence Northwesterly along the various courses and distances in the Southwesterly boundary line of said 83.63 Acre parcel to the point of beginning.

EXCEPTING THEREFROM that portion thereof lying Southwesterly of the Southwesterly line of U. S. Highway 101.

SWITCHYARD AREA

That certain real property in the County of San Diego, State of California, described as follows:

That portion of the Rancho Santa Margarita y Las Flores, described in Patent from the United States of America, dated March 28, 1879 and recorded in Book 7, page 18 et seq. of Patents in the office of the County Recorder of the County of San Diego, and being also portions of Section 24, Township 9 South, Range 7 West and Section 30, Township 9 South, Range 6 West, as shown on Record of Survey Map No. 6242, filed June 13, 1963, in said office of the County Recorder, described as follows:

Beginning at a 6 inch by 6 inch concrete highway monument set in the Northeasterly boundary line of the land described in that certain Grant of Easement from the United States of America, Secretary of the Navy, to Southern California Edison Company and San Diego Gas and Electric Company, on May 12, 1964, recorded in Series 5, Book 1964, Page No. 85887 of Official Records, in said office of the County Recorder, said land being also shown on said Record of Survey Map No. 6242, said concrete highway monument being also the Northwesterly terminus of that certain course shown as having a bearing of "North 56° 12' 04" West" and a distance of "2123.77 feet" on said Record of Survey Map No. 6242; thence Northwesterly, tangent to said last mentioned course along a curve concave Southwesterly, having a radius of 4940.00 feet, through a central angle of 00° 25' 46", a distance of 37.02 feet to the intersection of a non-tangent curve concave Southeasterly, having a radius of 135.00 feet, a radial line of said last mentioned curve passing through said point bears North 46° 45' 03" West; thence Southwesterly along said curve through a central angle of 09° 25' 25", a distance of 22.20 feet to a point in a reverse curve concave Northwesterly, having a radius of 135.00 feet; thence Southwesterly along said last mentioned curve through a central angle of 54° 17' 57", a distance of 127.94 feet to a point, a radial line of said curve passing through said point bears South 01° 52' 30" East; thence the following courses and distances: South 33° 00' 00" West, 45.00 feet; South 57° 00' 00" East, 45.00 feet; South 33° 00' 00" West, 123.00 feet; South 57° 00' 00" East, 1095.00 feet; North 33° 00' 00" East, 12.00 feet; South 57° 00' 00" East, 185.51 feet; North 06° 06' 31" East, 80.73 feet; and North 13° 18' 05" East, 211.24 feet to a point in the Northeasterly boundary line of the land shown on said Record of Survey Map No. 6242; thence along said Northeasterly boundary line, North 56° 12' 04" West, 1121.00 feet to the point of beginning.

UNIT 1 AREA

PARCEL 1:

That certain real property in the County of San Diego, State of California, described as follows:

That portion of the Rancho Santa Margarita y Las Flores, described in Patent from the United States of America, dated March 28, 1879, and recorded in Book 7, page 18 et seq., of Patents in the office of the County Recorder of the County of San Diego, and being also a portion of Section 24, Township 9 South, Range 7 West, as shown on Record of Survey Map No. 6242, filed June 13, 1963, in said office of the County Recorder, described as follows:

Beginning at a point in the Northwesterly boundary line of the land described in that certain Grant of Easement from the United States of America, Secretary of the Navy, to Southern California Edison Company and San Diego Gas and Electric Company, on May 12, 1964, recorded in Series 5, Book 1564, Page No. 85387, of Official Records in said office of the County Recorder, said land being also shown on said Record of Survey Map No. 6242, said point being South 33° 00' 00" West, 143.21 feet, measured along said Northwesterly boundary line, from the Northwesterly corner thereof; thence the following courses and distances: South 57° 00' 00" East, 102.80 feet; South 68° 59' 50" East, 434.90 feet; South 07° 00' 56" East, 167.65 feet; South 57° 00' 00" East, 208.00 feet; North 33° 00' 00" East, 22.50 feet; North 73° 57' 20" East, 35.09 feet; South 57° 00' 00" East, 121.00 feet; South 12° 00' 00" East, 80.61 feet; South 57° 00' 00" East, 145.00 feet; South 12° 00' 00" East, 79.20 feet; South 57° 00' 00" East, 75.73 feet; South 04° 55' 29" West, 60.07 feet; South 57° 00' 00" East, 134.00 feet and South 33° 00' 00" West, 375.00 feet to a point in the Southwesterly boundary line of said land, said point being North 52° 00' 51" West, 03.62 feet, measured along said Southwesterly boundary line, from the Southeasterly terminus of that certain course shown as having a bearing of "South 52° 00' 51" East" and a distance of "299.95 feet" as shown on Record of Survey Map No. 6242; thence along said Southwesterly boundary line the following courses and distances: North 52° 00' 51" West, 296.33 feet; North 58° 35' 26" West, 289.39 feet; North 65° 56' 29" West, 300.23 feet; North 68° 16' 51" West, 301.02 feet and North 61° 30' 25" West, 308.74 feet to said Northwesterly boundary line of the land shown on Record of Survey Map No. 6242; thence along said Northwesterly boundary line North 33° 00' 00" East, 642.11 feet to the Point of Beginning.

EXHIBIT "D"



EXCEPTING THEREFROM that certain rectangular parcel of land, described as follows.

Beginning at a point in that certain course having a bearing of "South 52° 00' 51" East" and a distance of "299.95 feet" in the Southwesterly boundary line of the land shown on Record of Survey Map No. 6242, filed June 13, 1963 in the office of the County Recorder of San Diego County, said point being North 52° 00' 51" West, 03.62 feet from the Southeasterly terminus of said certain course; thence North 33° 00' 00" East, 105.00 feet; thence North 57° 00' 00" West, 10.00 feet to the TRUE POINT OF BEGINNING of this description; thence continuing North 57° 00' 00" West, 40.00 feet; thence North 33° 00' 00" East, 110.00 feet; thence South 57° 00' 00" East, 40.00 feet and thence South 33° 00' 00" West, 110.00 feet to the true point of beginning.

PARCEL 2 (Off-Shore Land):

A strip of tide and submerged land, one-hundred (100) feet wide, in the County of San Diego, State of California, the center line of which is described as follows:

Beginning at a point in that certain course in the Southwesterly boundary of the 83.63 Acre parcel of land shown on Record of Survey Map filed on June 13, 1963, as Map No. 6242 of Records of Survey in the office of County Recorder of said County, said certain course is shown on said map as having a bearing of "S 52° 00' 51" E" and a length of "299.95 feet", said point being South 52° 00' 51" East 18.71 feet from the Northwesterly terminus of said certain course; thence South 33° 00' 00" West, 3,310.11 feet, containing 7.599 acres more or less.

The side lines of said strip of land shall be shortened at the Northeasterly terminus thereof so as to terminate in the Southwesterly boundary line of said 83.63 Acre parcel of land, shown on said Record of Survey Map.

UNITS 2 & 3 AREA

PARCEL 1:

That certain real property in the County of San Diego, State of California, described as follows:

That portion of the Rancho Santa Margarita y Las Flores, described in Patent from the United States of America, dated March 28, 1879 and recorded in Book 7, page 18 et seq. of Patents in the office of the County Recorder of the County of San Diego, and being also portions of Section 24, Township 9 South, Range 7 West and Section 30, Township 9 South, Range 6 West, as shown on Record of Survey Map No. 6242, filed June 13, 1963, in said office of the County Recorder, described as follows:

Beginning at a 6 inch by 6 inch concrete highway monument set in the Northeasterly boundary line of the land described in that certain Grant of Easement from the United States of America, Secretary of the Navy, to Southern California Edison Company and San Diego Gas and Electric Company, on May 12, 1964, recorded in Series 5, Book 1964, Page No. 85887 of Official Records, in said office of the County Recorder, said land being also shown on said Record of Survey Map No. 6242, said concrete highway monument being also the Northwesterly terminus of that certain course shown as having a bearing of "North 56° 12' 04" West" and a distance of "2123.77 feet" on said Record of Survey Map No. 6242; thence Northwesterly tangent to said last mentioned course along a curve concave Southwesterly, having a radius of 4940.00 feet, through a central angle of 00° 25' 46", a distance of 37.02 feet to the intersection of a non-tangent curve concave Southeasterly, having a radius of 135.00 feet, a radial line of said last mentioned curve passing through said point bears North 46° 45' 03" West; thence Southwesterly along said curve through a central angle of 09° 25' 25", a distance of 22.20 feet to a point in a reverse curve concave Northwesterly, having a radius of 135.00 feet; thence Southwesterly along said last mentioned curve through a central angle of 54° 17' 57", a distance of 127.94 feet to a point, a radial line of said curve passing through said point bears South 01° 52' 30" East; thence South 33° 00' 00" West, 45.00 feet; thence South 57° 00' 00" East, 45.00 feet; thence South 33° 00' 00" West, 123.00 feet to the TRUE POINT OF BEGINNING of this description; thence the following courses and distances: South 57° 00' 00" East, 1095.00 feet; North 33° 00' 00" East, 12.00 feet; South 57° 00' 00" East, 185.51 feet; South 06° 06' 31" West, 76.25 feet; South 35° 36' 25" East, 208.36 feet; South 33° 00' 00" West, 102.00 feet; North 64° 48' 28" West,

301.80 feet and South 33° 00' 00" West, 245.30 feet to a point in the Southwesterly boundary line of the land shown on said Record of Survey Map No. 6242; thence along said Southwesterly boundary line the following courses and distances: North 68° 35' 07" West, 172.49 feet; North 73° 50' 00" West, 301.73 feet; North 65° 24' 53" West, 169.60 feet; North 57° 24' 41" West, 146.24 feet; North 49° 34' 15" West, 300.24 feet; North 50° 06' 17" West, 300.13 feet and North 52° 00' 51" West, 03.62 feet to a point in said Southwesterly boundary line which is South 52° 00' 51" East, 296.33 feet, from the Northwesterly terminus of that certain course shown as having a bearing of "South 52° 00' 51" East" and a distance of "299.95 feet"; thence leaving said Southwesterly boundary line North 33° 00' 00" East, 426.00 feet; thence South 57° 00' 00" East, 161.00 feet; thence North 33° 00' 00" East, 167.00 feet to the true point of beginning.

PARCEL 2 (Off-Shore Land):

Those certain tide and submerged lands in the County of San Diego, State of California, described as follows:

Beginning at the Easterly terminus of that certain course in the Southwesterly boundary line of the 83.63 Acre parcel of land shown on Record of Survey Map filed on June 13, 1963 as Map No. 6242 of Record of Surveys, in the office of the County Recorder of said County, said certain course is shown on said map as having a bearing of "South 49° 34' 15" East and a length of 300.24 feet"; thence South 57° 24' 41" East, 8.64 feet to the TRUE POINT OF BEGINNING of this description; thence the following courses and distances: South 33° 00' 00" West, 56.81 feet; South 39° 44' 55" West, 2347.44 feet; North 57° 00' 00" West, 58.14 feet; South 33° 00' 00" West, 140.00 feet; South 57° 00' 00" East, 50.00 feet; South 33° 00' 00" West, 681.39 feet; North 57° 00' 00" West, 20.00 feet; South 33° 00' 00" West, 140.00 feet; South 57° 00' 00" East, 20.00 feet; South 33° 00' 00" West, 5029.50 feet; South 57° 00' 00" East, 40.00 feet; North 33° 00' 00" East, 5029.50 feet; South 57° 00' 00" East, 80.00 feet; North 33° 00' 00" East, 140.00 feet; North 57° 00' 00" West, 50.00 feet; North 33° 00' 00" East, 681.39 feet; South 57° 00' 00" East, 20.00 feet; North 33° 00' 00" East, 140.00 feet; North 57° 00' 00" West, 11.37 feet; North 39° 44' 55" East, 543.88 feet; South 50° 15' 05" East, 70.00 feet; North 39° 44' 55" East, 140.00 feet; North 50° 15' 05" West, 45.00 feet; North 39° 44' 53" East, 1660.88 feet; South 61° 03' 16" East, 21.05 feet; South 26° 17' 55" West, 2343.08 feet; North 57° 00' 00" West, 11.43 feet; South 33° 00' 00" West, 140.00 feet; South 57° 00' 00" East, 20.00 feet; South 33° 00' 00" West, 681.38 feet; North 57° 00' 00" West, 50.00 feet; South 33° 00' 00" West, 140.00 feet; South 57° 00' 00" East, 80.00 feet; South 33° 00' 00" West, 2699.50

EXHIBIT "E"

West, 58.09 feet; North 26° 17' 55" East, 2347.21 feet and North 33° 00' 00" East, 64.97 feet to a point in the Southwesterly boundary line of the 33.63 Acre parcel of land shown on said Record of Survey Map No. 6242; thence along said Southwesterly line, the following two courses: North 55° 24' 53" West, 48.94 feet and North 57° 24' 41" West, 137.60 feet to the true point of beginning.

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EXHIBIT F

SAN ONOFRE UNITS 2 AND 3  
CONSTRUCTION AGREEMENT

AND

AMENDMENT NO. 1  
SAN ONOFRE UNITS 2 AND 3  
CONSTRUCTION AGREEMENT

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SAN ONOFRE UNITS 2 AND 3

CONSTRUCTION AGREEMENT

BETWEEN

SAN DIEGO GAS & ELECTRIC COMPANY

AND

SOUTHERN CALIFORNIA EDISON COMPANY

**POOR ORIGINAL**

1  
2 SAN ONOFRE UNITS 2 AND 3

3 CONSTRUCTION AGREEMENT

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**POOR ORIGINAL**

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1                    SAN ONOFRE UNITS 2 AND 3

2                    CONSTRUCTION AGREEMENT

3  
4  
5 1.            PARTIES:    This Agreement is entered into as of the  
6     24 day of July, 1973, by and between  
7 SAN DIEGO GAS & ELECTRIC COMPANY, a California corporation  
8 ("San Diego") and SOUTHERN CALIFORNIA EDISON COMPANY,  
9 a California corporation ("Edison"), individually called  
10 "Company" and collectively called "Companies".

11 2.            RECITALS:    This Agreement is made with reference  
12 to the following facts, among others:

13            2.1    The Companies entered into the San Onofre  
14 Ownership Agreement, dated October 5, 1967, in connection  
15 with the San Onofre Nuclear Generating Station (hereinafter  
16 called "San Onofre"), and Unit 1 in particular.

17            2.2    The Companies entered into a letter agreement,  
18 dated January 22, 1970, pertaining to the intent of the  
19 Companies with regard to the ownership, construction, opera-  
20 tion, maintenance and use of Units 2 and 3 at San Onofre. As  
21 provided in said letter agreement, the Companies also entered  
22 into supplemental agreements concerning liability and  
23 insurance, dated August 21, 1970, and project costs prior to  
24 execution of this Agreement, dated September 9, 1970, both in  
25 connection with Units 2 and 3.

26            2.3    The Companies entered into a letter agreement.

1 dated December 22, 1970, that provides for the retirement  
2 of the existing switchyard facilities and the construction  
3 of new switchyard facilities at Site A.

4 2.4 The Companies entered into an agreement, dated  
5 June 30, 1970, amended September 30, 1970 and October 2, 1972,  
6 with the English Electric Company, Limited, for purchase of two  
7 turbine-generators for Units 2 and 3.

8 2.5 The Companies intend to enter into an  
9 agreement with Combustion Engineering, Inc., for purchase of  
10 the nuclear steam supply systems, including fuel fabrication  
11 for the first fuel loading, for Units 2 and 3.

12 2.6 The Companies intend to enter into agreements  
13 with others for the fuel supply and the fuel reprocessing  
14 for all units at the San Onofre Nuclear Generating Station.

15 2.7 The Companies intend to enter into an  
16 agreement with others for engineer-constructor services for  
17 Units 2 and 3.

18 2.8 Edison and San Diego desire to provide in this  
19 Agreement for their respective rights and obligations with  
20 respect to the construction of Units 2 and 3.

21 3. AGREEMENT: The Companies agree as follows:

22 4. DEFINITIONS: When used herein, the following  
23 terms shall have the following meanings:

24 4.1 Composite Budget: The budget described in  
25 Section 6.5 hereof that the Companies jointly prepare to  
26 project the Construction Costs.

1           4.2    Construction Costs:    Those costs described in  
2 Section 6.1 hereof incurred by the Companies in the perfor-  
3 mance of Project Work.

4           4.3    Coordinating Representatives:    The representa-  
5 tives established pursuant to Section 7.1.1 hereof.

6           4.4    Date of Firm Operation:    The date, in each case  
7 for Unit 2 and Unit 3, on which that unit is formally released  
8 by the Project Director to the system dispatchers for opera-  
9 tion as a reliable source of generation and can be reasonably  
10 expected to operate continuously at its rated capacity.

11          4.5    Date of Initial Full Power Operation:    The  
12 date, in each case for Unit 2 and Unit 3, on which that unit  
13 shall have first achieved two hundred (200) continuous hours  
14 of operation at full power.

15          4.6    Date of Initial Operation:    The date, in each  
16 case for Unit 2 and Unit 3, on which that unit's generator is  
17 first synchronized to each Company's electric system and  
18 generates power.

19          4.7    Edison Switchyard:    The 220-kV switchrack and  
20 related facilities at San Onofre constructed for Edison's  
21 exclusive use, including the 220-kV bus sections to which  
22 Edison's transmission lines are connected, but not including  
23 the power circuit breakers, transformer side disconnect  
24 switches, conductors, and dead-end assemblies associated with  
25 the main transformer leads and reserve auxiliary transformer  
26 leads or any environmental radiation monitoring equipment

1 installed therein. In addition, the following items located  
2 in the Unit 1 control-administration building are considered  
3 to be part of the Edison Switchyard:

4           4.7.1 Controls, indicating lights and  
5 instruments associated with Edison's  
6 220-kV switchrack facilities.

7           4.7.2 Meters and devices for interconnection  
8 metering and Edison's associated  
9 telemetering equipment.

10           4.8 Engineer-Constructor: A corporation which  
11 shall perform major engineering and construction portions  
12 of the Project Work under a separate contract with the  
13 Companies.

14           4.9 Engineering Representatives: The represen-  
15 tatives established pursuant to Section 7.1.2 hereof.

16           4.10 Final Completion Report: A complete  
17 summary of the Construction Costs incurred in the performance  
18 of the Project Work and each Company's portion of said  
19 Construction Costs.

20           4.11 Fiscal Representatives: The representatives  
21 established pursuant to Section 7.1.3 hereof.

22           4.12 FPC Accounts: The Federal Power Commission's  
23 Uniform System of Accounts prescribed for Public Utilities  
24 and Licensees (Class A and Class B), in effect on  
25 January 1, 1970, as amended. Reference in this Agreement to  
26 any specific FPC account number shall mean the FPC account

1 number in effect as of the effective date of this Agreement,  
2 or any successor FPC account number.

3 4.13 Insurance Representatives: The represen-  
4 tatives established pursuant to Section 7.1.4 hereof.

5 4.14 Nuclear Information Center: The structures  
6 and associated facilities that will be constructed or re-  
7 located at the Plant Site, for the purpose of educating  
8 visitors about nuclear power generation and its effect on  
9 the environment.

10 4.15 Operating Agent: Edison, who, pursuant to  
11 the January 22, 1970 letter agreement between the Companies  
12 referred to in Section 2.2 hereof, is designated the Company  
13 having responsibility for the operation and maintenance  
14 of Unit 2 and Unit 3.

15 4.16 Participation Share: The respective undivided  
16 percentage ownership interest of each Company in Units 2 and  
17 3 which is eighty percent (80%) for Edison and twenty percent  
18 (20%) for San Diego.

19 4.17 Plant Site: An area of land used for the  
20 major portion of San Onofre described in an easement granted  
21 for such purpose by the United States to the Companies on  
22 May 12, 1964 and recorded in the Official Records, Office  
23 of the County Recorder of San Diego County, in Series 5,  
24 Book 1964, Page No. 85887.

25 4.18 Project Agreements: Those agreements which  
26 have been executed, or will be executed during the term of

1 this Agreement, by San Diego and Edison, between themselves,  
2 or jointly with third parties, which relate to the construction  
3 of Units 2 and 3.

4 4.19 Project Director: Edison, who, as agent for  
5 San Diego and principal on its own behalf, is designated the  
6 Company having the responsibility for the performance and  
7 completion of the Project Work.

8 4.20 Project Insurance: Policies of insurance  
9 relating to the Project Work to be secured and maintained as  
10 provided in Section 8 hereof.

11 4.21 Project Work: All engineering, design,  
12 construction, contract preparation, purchasing, supervision,  
13 expediting, inspection, accounting, testing, start-up, and  
14 regulatory licensing of and for Units 2 and 3 and other  
15 related facilities (but not the switchyard facilities at  
16 Site A, the Edison Switchyard and the San Diego Switchyard)  
17 as such work is more particularly described in Section 5  
18 hereof.

19 4.22 Quality Control: All those planned and  
20 systematic actions necessary or appropriate to provide,  
21 in accordance with 10 C.F.R. Part 50, Appendix B, as it may  
22 be amended from time to time, adequate assurance to the  
23 Companies that the construction and operation of Units 2 and 3  
24 will not pose an undue risk to the health and safety of the  
25 public, and that Units 2 and 3 will provide continuous and  
26 reliable generation of electric power.





1           4.27 San Onofre Ownership Agreement:    The  
2 agreement the Companies entered into on October 5, 1967,  
3 which provides for the ownership of the San Onofre Nuclear  
4 Generating Station.

5           4.28 Site A:    The area of land at San Onofre  
6 on which Edison and San Diego have constructed new  
7 switchyard facilities for use during a portion of the  
8 construction period of Units 2 and 3.

9           4.29 Start-Up Period:    The period, for each  
10 unit, commencing on the date when the auxiliary bus of  
11 each unit is first energized for testing, and terminating  
12 on the Date of Firm Operation of such unit, during which  
13 any necessary alterations and adjustments shall be  
14 made to provide for said unit's safe and dependable operation.

15           4.30 Unit 1:    The first nuclear generating  
16 unit at San Onofre, consisting of a nuclear steam supply  
17 system, a turbine-generator designed to generate approximately  
18 430 megawatts (net) of electric power, and all related  
19 equipment and facilities which are necessary for the safe  
20 and efficient generation of electrical energy.

21           4.31 Unit 2:    The second nuclear generating  
22 unit at San Onofre, consisting of a nuclear steam  
23 supply system, a turbine-generator designed to generate  
24 approximately 1,140 megawatts (net) of electric power,  
25 and all related equipment and facilities which are necessary  
26 for the safe and efficient generation of electrical energy,

1 including that equipment necessary to connect Unit 2  
2 with those facilities existing as part of Unit 1 and those  
3 facilities that will be part of Unit 3, installed on  
4 the Plant Site, but excluding those common facilities  
5 installed along with Unit 1 or Unit 3.

6           4.32 Unit 3: The third nuclear generating  
7 unit at San Onofre, consisting of a nuclear steam supply  
8 system, a turbine-generator designed to generate approximately  
9 1,140 megawatts (net) of electric power, and all related  
10 equipment and facilities which are necessary for the safe  
11 and efficient generation of electrical energy, including  
12 that equipment necessary to connect Unit 3 with those facilities  
13 existing as part of Unit 1 and those facilities that will  
14 be part of Unit 2, installed on the Plant Site, but  
15 excluding those common facilities installed along with  
16 Unit 1 or Unit 2.

17           4.33 Willful Action: Action taken or not taken by  
18 a Company at the direction of its directors, officers or  
19 employees having management or administrative responsibility  
20 affecting its performance under any of the Project Agreements,  
21 which action:

22                   4.33.1 is knowingly or intentionally taken or  
23                   failed to be taken with conscious  
24                   indifference to the consequences there-  
25                   of, or with intent that injury or  
26                   damage would result or would probably

1 result therefrom;

2 4.33.2 has been determined by final arbitra-  
3 tion award or final judgment or judic-  
4 ial decree to be a material default  
5 under any of the Project Agreements and  
6 which occurs or continues beyond the  
7 time specified in such arbitration  
8 award or judgment or judicial decree  
9 for curing such default, or, if no time  
10 to cure is specified therein, occurs or  
11 continues thereafter beyond a reason-  
12 able time to cure such default:

13 4.33.3 is knowingly or intentionally taken or  
14 failed to be taken with the knowledge  
15 that such action taken or failed to be  
16 taken is a material default under any  
17 of the Project Agreements.

18 Willful Action does not include any act or  
19 failure to act which is merely involuntary, accidental  
20 or negligent. As used in this Section 4.33, the phrase  
21 "employees having management or administrative responsibility"  
22 refers to employees of a Company who are responsible for  
23 one or more of the executive or administrative functions of  
24 planning, organizing, coordinating, directing, controlling  
25 and supervising such Company's performance under any of  
26 the Project Agreements.

1 5. PROJECT WORK: The Project Work shall be performed  
2 and completed as follows:

3 5.1 Edison shall be the Project Director.

4 5.2 San Diego hereby appoints Edison as its agent,  
5 and Edison hereby undertakes as San Diego's agent and as  
6 principal on its own behalf, the responsibility to perform  
7 and complete the Project Work in accordance with the terms  
8 and conditions set forth herein.

9 5.3 As part of such responsibility and subject to  
10 the terms and conditions set forth herein, the Project Director  
11 shall, in regard to the Project Work:

12 5.3.1 Contract for, furnish and obtain  
13 services and studies.

14 5.3.2 Purchase and procure equipment,  
15 apparatus, machinery, materials, tools,  
16 and supplies.

17 5.3.3 Secure and maintain Project Insurance.

18 5.3.4 Investigate, adjust and settle claims  
19 against the Companies for which pay-  
20 ment is not made by Project Insurance,  
21 and claims of the Companies against  
22 any insurer or third party for losses  
23 and damages. The Project Director shall  
24 obtain the prior consent of the  
25 Coordinating Representatives before  
26 agreeing to a settlement of any claim

1 or combination of claims exceeding  
2 \$100,000 arising out of the same trans-  
3 action or event and not covered by  
4 Project Insurance.

5 5.3.5 Assist any insurer in the investiga-  
6 tion, adjustment and settlement of any  
7 loss or claim covered by Project  
8 Insurance.

9 5.3.6 Determine what contractors, if any,  
10 shall be required to furnish insurance  
11 as provided in Section 8.1 hereof, and  
12 faithful performance and payment bonds.

13 5.3.7 Execute, administer and enforce con-  
14 tracts in the name of Edison, acting as  
15 principal on its own behalf and as  
16 agent for San Diego, for the Project  
17 Work; provided, that agreements with  
18 third parties concerning the nuclear  
19 steam supply systems, fuel supply,  
20 fuel reprocessing, turbine-generators  
21 and the Engineer-Constructor will be  
22 executed and enforced by both Edison  
23 and San Diego.

24 5.3.8 Comply with laws and regulations  
25 applicable to the Project Work, includ-  
26 ing the provisions of any workmen's

1 compensation acts.

2 5.3.9 Keep and maintain records of monies re-  
3 ceived and expended, obligations in-  
4 curred, credits accrued, estimates of  
5 Construction Costs (excluding ad valorem  
6 taxes and the allowance for funds used  
7 during construction), and contracts  
8 entered into in the performance of  
9 Project Work.

10 5.3.10 Expend funds advanced by San Diego to  
11 the Project Director only for Construc-  
12 tion Costs and in accordance with the  
13 terms and conditions of this Agreement.

14 5.3.11 Keep Units 2 and 3 free from liens ex-  
15 cept for liens for taxes or assessments  
16 not yet due or liens incidental to  
17 construction; provided, that the Project  
18 Director may in good faith contest the  
19 lawfulness or validity of any lien if  
20 such lien cannot be fore-closed during  
21 the pendency of the contest.

22 5.3.12 Keep San Diego, through its Engineering  
23 Representative, fully and promptly  
24 informed as to significant matters  
25 involving the Project Work.

26 5.3.13 Obtain or cause to be obtained, in

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1 accordance with Section 10 hereof,  
2 construction permits, temporary  
3 access rights and other licenses  
4 and approvals required to perform  
5 and complete Project Work.

6 5.3.14 Construct or cause to be constructed  
7 Units 2 and 3 with the objective:

8 5.3.14.1 for Unit 2, of having a  
9 Date of Firm Operation  
10 by October 1, 1979;  
11 and

12 5.3.14.2 for Unit 3, of having a  
13 Date of Firm Operation by  
14 October 1, 1980.

15 The Project Director shall use its  
16 best efforts in the performance of  
17 its responsibilities hereunder to  
18 complete the Project Work as  
19 scheduled above and shall promptly  
20 inform the Coordinating Representatives  
21 of any factors affecting such  
22 schedules.

23 5.3.15 Subsequent to the Date of Initial  
24 Full Power Operation of each Unit,  
25 make final equipment modifications  
26 necessary to meet the specified

1 requirements thereof, and conduct  
2 tests to verify that specified  
3 efficiencies of major equipment  
4 items have been achieved.

5 5.3.16 Construct or cause to be constructed  
6 a Nuclear Information Center on  
7 the Plant Site with convenient access  
8 by the public, parking facilities  
9 and landscaping.

10 5.4 Each Company shall provide the other with  
11 any available information pertaining to the Project Work  
12 that will assist the other Company in responding to a  
13 request for such information by any regulatory agency.  
14 The Companies shall keep each other informed on such  
15 responses to regulatory agencies.

16 5.5 The Project Director shall prepare and  
17 provide San Diego with a summary of Construction Costs,  
18 in a form which will allow San Diego to classify its  
19 portion of such Construction Costs to appropriate FPC  
20 Accounts, as soon as practicable after the Date of Firm  
21 Operation of Unit 2 and Unit 3.

22 5.6 The Project Director shall prepare and provide  
23 San Diego with a Final Completion Report within one year after  
24 the completion of Project Work.

25 5.7 The Project Director shall use the FPC Accounts  
20 in preparing the summary of Construction Costs and the Final



1 Completion Report and any supplements thereto.

2 6. CONSTRUCTION COSTS:

3 6.1 Construction Costs shall consist of payments  
4 made and obligations incurred (other than obligations for the  
5 allowance for funds used during construction and ad valorem  
6 taxes) for the account of Project Work. Construction Costs  
7 shall include, but shall not be limited to, all payments made  
8 and obligations incurred in connection with the following:

9 6.1.1 All cost of labor, services and studies  
10 authorized by the Project Director.

11 6.1.2 Payroll of the Companies' employees who  
12 perform Project Work, including  
13 customary labor loading charges applic-  
14 able thereto such as Social Security  
15 Tax, unemployment taxes and time-off  
16 allowances.

17 6.1.3 All components of the costs of con-  
18 struction including overhead costs  
19 associated with construction, temporary  
20 facilities, land and land rights,  
21 structures and improvements, and  
22 equipment for Units 2 and 3, as set  
23 forth in the FPC Accounts.

24 6.1.4 All costs, including those of consul-  
25 tants and attorneys retained for the  
26 purpose of the Project Work and San

1 San Diego's general counsel (but  
2 excluding those direct costs of  
3 Edison's attorneys whose costs and  
4 expenses are included in administrative  
5 and general expenses provided for in  
6 Section 6.1.8 hereof, and those costs  
7 of San Diego's general counsel involved  
8 in pre-licensing anti-trust review  
9 activities), incurred by the Companies  
10 in regard to:

- 11 6.1.4.1 Land rights (excluding  
12 transmission land rights).  
13 6.1.4.2 Procurement of the nuclear  
14 steam supply systems (in-  
15 cluding the initial fuel  
16 loadings), turbine-genera-  
17 tors and services of the  
18 Engineer-Constructor,  
19 6.1.4.3 Preparation of applications  
20 or reports required to  
21 obtain necessary regulatory  
22 approvals for Units 2 and 3,  
23 6.1.4.4 Preparation of the agree-  
24 ments relating to Project  
25 Work (excluding this Agree-  
26 ment, the letter and supple-

1 mental agreements referred  
2 to in Sections 2.2 and 2.3  
3 hereof, agreements relating  
4 to the ownership, operation  
5 and maintenance and any  
6 other agreement or amendment  
7 to an agreement relating  
8 to Units 2 and 3 that the  
9 Companies have or may enter  
10 into between themselves  
11 exclusively).

12 6.1.5 All costs, including any rental  
13 charges, of materials, supplies, tools,  
14 machinery, equipment, apparatus and  
15 construction power.

16 6.1.6 All costs of injuries and damages  
17 referred to in Section 9.5 hereof,  
18 workmen's compensation incurred  
19 referred to in Section 5.3.8 hereof  
20 and Project Insurance, except that  
21 insurance described in Section 8.2  
22 hereof.

23 6.1.7 All federal, state or local taxes of  
24 any character imposed upon Project  
25 Work.

26 6.1.8 An allowance for administrative and

1 general expenses to cover the costs of  
2 services rendered by each Company in  
3 the performance of Project Work. Said  
4 allowance for each Company shall be the  
5 sum of (1) twenty-eight and one-half  
6 percent (28.5%) of the labor portion of  
7 each respective Company's direct pay-  
8 roll, including overheads, of employees  
9 who perform Project Work, (2) three-  
10 fourths of one percent (3/4%) of one-  
11 half of the Construction Costs, such  
12 Construction Costs first being reduced  
13 by the aforementioned labor portion,  
14 and (3) one-half of one percent (1/2%)  
15 of the remaining one-half of the  
16 Construction Costs, such Construction  
17 Costs first being reduced by the afore-  
18 mentioned labor portion.

19 As used in this Section 6.1.8, the  
20 Construction Costs base for the appli-  
21 cation of the percentages referred to  
22 above shall not include:

- 23 6.1.8.1 Any allowance for adminis-  
24 trative and general expenses.  
25 6.1.8.2 Costs and expenses referred  
26 to in Section 9.5 hereof.

1 6.1.8.3 Legal fees incurred by  
2 San Diego.

3 6.1.9 Expenses of the Operating Agent  
4 incurred during the engineering  
5 design period, the construction  
6 period and the Start-Up Period of each  
7 unit.

8 6.1.10 Any training expenses charged to  
9 Construction Costs in accordance with  
10 an agreement providing for the opera-  
11 tion of Units 2 and 3.

12 6.2 Except as otherwise agreed by the Companies,  
13 any costs incurred in connection with the retirement of the  
14 switchyard facilities at Site A, the construction of the  
15 Edison Switchyard and the construction of the San Diego Switch-  
16 yard shall be borne solely by the Company owning such facility.

17 6.3 Neither Company shall be entitled to a fee,  
18 price, percentage or any other compensation over and above  
19 the costs of services rendered by it in the performance of  
20 Project Work.

21 6.4 Edison shall pay eighty percent (80%) and  
22 San Diego shall pay twenty percent (20%) of all Construction  
23 Costs.

24 6.5 Budgets for the expected expenditures of  
25 Construction Costs will be established by the Companies in  
26 the following manner:

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6.5.1 Within thirty working days after execution of this Agreement, each Company shall prepare and submit to the Fiscal Representatives expenditure curves of its expected expenditures for Construction Costs for the term of this Agreement, and a detailed budget of its expected monthly expenditures for Construction Costs for the 1973 and 1974 calendar years.

6.5.2 Within fifteen working days after receipt of each Companies' curves and budget, the Companies, through their Fiscal Representatives, shall jointly:

6.5.2.1 Develop a Composite Budget, which will consist of a composite expenditure curve for the term of this Agreement and a composite detailed budget by months for the 1973 and 1974 calendar years.

6.5.2.2 Submit such Composite Budget to the Coordinating Representatives for their review and approval.

1           6.5.3    The Coordinating Representatives shall  
2                    review such Composite Budget and imple-  
3                    ment any necessary actions so that such  
4                    Composite Budget will receive their  
5                    approval within twenty working days  
6                    after receipt of the Composite Budget.

7           6.5.4    Such Composite Budget shall form the  
8                    basis for projecting the Construction  
9                    Costs; provided, that the Companies'  
10                   failure to develop such Composite  
11                   Budget shall not in any way prevent  
12                   the Project Director from performing  
13                   in a timely fashion the Project Work.

14           6.5.5    By September 1 of each succeeding year  
15                    thereafter and until the termination of  
16                    this Agreement, each Company shall  
17                    prepare and submit to the Fiscal  
18                    Representatives a detailed budget of  
19                    its expected monthly expenditures for  
20                    Construction Costs for the two next  
21                    following years.

22           6.5.6    Within fifteen working days after re-  
23                    ceipt of each Company's detailed  
24                    budget for the two next following  
25                    years, the Companies, through their  
26                    Fiscal Representatives, shall jointly

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revise the Composite Budget accordingly and submit such revised Composite Budget to the Coordinating Representatives for their review and approval.

6.5.7 The Coordinating Representatives shall review such revised Composite Budget and implement any necessary actions so that such revised Composite Budget will receive their approval by October 1 of each succeeding year.

6.5.8 The Companies shall promptly advise each other if and when it becomes apparent that actual costs will differ materially from projected costs submitted by such Company. If from time to time it becomes evident that the Composite Budget is in need of material revision, the Companies, acting through their Fiscal Representatives, shall promptly revise such Composite Budget and submit it to the Coordinating Representatives for their approval.

6.6 San Diego shall submit to the Project Director, no more frequently than weekly, an invoice for actual Construction Costs incurred by San Diego for the period covered by such invoice.

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1           6.7    San Diego shall advance funds weekly to the  
2 Project Director, so that the Project Director may reimburse  
3 itself and pay others for Construction Costs to be incurred,  
4 as follows:

5           6.7.1   On Thursday of each week, the Project  
6 Director shall submit to San Diego a  
7 Request for Funds (in the form des-  
8 cribed in Exhibit A attached hereto),  
9 to cover San Diego's portion of  
10 expected expenditures for Construction  
11 Costs for the calendar week following  
12 such request. San Diego shall make  
13 such advance payment to the Project  
14 Director within three working days  
15 after receipt by San Diego of such  
16 request.

17           6.7.2   In making any Request for Funds, the  
18 Project Director shall take into  
19 account any unexpended balance in or  
20 deficiency of funds previously ad-  
21 vanced by San Diego and statements  
22 of Construction Costs previously  
23 submitted by San Diego.

24           6.7.3   Funds not advanced to the Project  
25 Director by San Diego in response to  
26 a Request for Funds on or before the

1 due date shall be payable with  
2 interest accrued at the rate of ten  
3 percent (10%) per annum or the  
4 maximum legal rate of interest, which-  
5 ever is lesser, computed from the due  
6 date to the date of payment.

7 6.8 The Project Director shall make its records  
8 relating to Construction Costs available to the Fiscal  
9 Representatives at reasonable times and places.

10 6.9 A cash adjustment shall be made between  
11 Edison and San Diego so that each item of the Construction  
12 Costs shall be shared between the Companies in proportion  
13 to their Participation Shares as follows:

14 6.9.1 When the total and final Construction  
15 Costs shall have been incurred and  
16 calculated, San Diego shall pay to  
17 Edison for any deficit between total  
18 advances made by it and its Participa-  
19 tion Share of the total and final  
20 Construction Costs, or shall be  
21 reimbursed by Edison for any credit  
22 between said total advances made by  
23 it and its Participation Share of the  
24 total and final Construction Costs.

25 6.9.2 Such deficit or credit shall be payable  
26 with interest at an annual interest

1 rate charged to prime unsecured  
2 borrowers by the Bank of America,  
3 N.T. and S.A., San Francisco, then  
4 in effect, accrued from the date of  
5 the last cash transaction between the  
6 Companies resulting from a Request for  
7 Funds and until the date of payment of  
8 such deficit or credit.

9 7. ADMINISTRATION:

10 7.1 As a means of securing effective cooperation  
11 and interchange of information and of providing consultation  
12 on a prompt and orderly basis between the Companies in  
13 connection with various administrative and technical problems  
14 which may arise from time to time in connection with the  
15 performance of the Project Agreements, each Company shall  
16 designate qualified representatives, as listed below, who  
17 shall contact each other directly regarding Project Work  
18 matters and shall be responsible for developing procedures  
19 as required to provide for effective liaison between the  
20 Companies.

21 7.1.1 A Coordinating Representative to be  
22 appointed by each Company:

23 7.1.1.1 To provide liaison  
24 between the Companies at the  
25 Management level.

26 7.1.1.2 To review and discuss

1 issues and problems relating  
2 to Units 2 and 3 and to seek  
3 to resolve issues referred to  
4 it by the Engineering, Fiscal,  
5 Insurance, or Quality Control  
6 Representatives.

7 7.1.2 An Engineering Representative to be  
8 appointed by each Company:

9 7.1.2.1 To provide liaison between  
10 the Companies at the  
11 project engineering level  
12 and to provide a point of  
13 contact for all Project  
14 Work except matters specif-  
15 ically assigned to other  
16 representatives provided for  
17 in this Section 7.

18 7.1.2.2 To review and discuss issues  
19 and problems and to take  
20 such actions as are necessary  
21 to implement the provisions  
22 of this Agreement.

23 7.1.2.3 To perform such other  
24 functions and duties as may  
25 be assigned to them by the  
26 Coordinating Representatives.

1 7.1.3 A Fiscal Representative to be appointed  
2 by each Company:

3 7.1.3.1 To provide liaison between  
4 the Companies and to provide  
5 a point of contact for all  
6 matters concerning plant  
7 accounting, audits, billings,  
8 construction expense account-  
9 ing and other related fiscal  
10 matters.

11 7.1.3.2 To review and discuss issues  
12 and problems and to take  
13 such actions as are necessary  
14 to implement the provisions  
15 of this Agreement.

16 7.1.3.3 To develop procedures for  
17 providing proper accounting  
18 between the Companies  
19 incidental to the Construc-  
20 tion Costs.

21 7.1.3.4 To perform such other  
22 functions and duties as may  
23 be assigned to them by the  
24 Coordinating Representatives.

25 7.1.4 An Insurance Representative to be  
26 appointed by each Company:

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7.1.4.1 To provide liaison between the Companies and to provide a point of contact for all matters concerning Project Insurance.

7.1.4.2 To review and discuss issues and problems and take such actions as are necessary to implement the provisions of this Agreement.

7.1.4.3 To perform such other functions and duties as may be assigned to them by the Coordinating Representatives.

7.1.5 A Quality Control Representative to be appointed by each Company:

7.1.5.1 To provide liaison between the Companies and to provide a point of contact for all matters concerning Quality Control.

7.1.5.2 To review and discuss issues and problems, and take such actions and institute such procedures as are necessary to implement the provisions

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of this Agreement.

7.1.5.3 To perform such other functions and duties as may be assigned to them by the Coordinating Representatives.

7.2 Within ten days after execution of this Agreement, each Company by notice to the other Company shall designate its Coordinating, Engineering, Fiscal, Insurance and Quality Control Representatives.

7.3 Each Company shall notify the other Company promptly of any change in its representatives.

7.4 The Companies, acting through their Coordinating Representatives, shall have the right to establish ad hoc committees when, in the opinion of the Coordinating Representatives, such committees are required. The authority of any such committee shall be set forth in the written agreement between the Coordinating Representatives establishing such committee and shall be subject to the provisions of the Project Agreements.

7.5 Representatives established pursuant to this Agreement shall have no authority to modify any of the provisions of the Project Agreements; provided, that this Agreement may be modified in writing and when duly executed by an officer of each Company.

7.6 Any action, agreement or determination made by the Coordinating Representatives shall be subject to

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1 writing and shall become effective when signed by the  
2 Coordinating Representative of each Company.

3 8. PROJECT INSURANCE:

4 8.1 During the performance of Project Work  
5 hereunder, the Project Director shall secure and maintain in  
6 effect the following non-nuclear insurance coverages, to  
7 the extent available, covering the Project Work. Such  
8 coverages may be provided by either the Companies or  
9 contractors.

10 8.1.1 Comprehensive bodily injury and  
11 property damage liability insurance,  
12 excluding automobile liability.

13 8.1.2 All risk-builder's risk insurance  
14 covering loss or damage to Project  
15 Work under course of construction,  
16 including materials and supplies  
17 while in transit and while stored at  
18 the Plant Site.

19 8.2 During the performance of Project Work here-  
20 under each Company shall secure and maintain in effect the  
21 following insurance coverages for itself:

22 8.2.1 Automobile liability protection  
23 covering liabilities arising out of  
24 the use by such Company of owned,  
25 non-owned, or hired automobiles  
26 used in the performance of Project

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1 Work.

2 8.2.2 Workmen's compensation benefits  
3 covering such Company's own  
4 employees in compliance with  
5 statutory requirements of the  
6 relevant jurisdiction.

7 8.3 The Companies shall, prior to the delivery of  
8 nuclear fuel for Unit 2 and Unit 3 to the Plant site,  
9 secure and maintain in effect the following nuclear  
10 insurance and other coverages with respect to said  
11 units:

12 8.3.1 Nuclear liability insurance against  
13 liability arising out of or resulting  
14 from a "nuclear incident" as defined  
15 in Section 11g of the Atomic Energy  
16 Act of 1954, as amended. Such  
17 insurance shall include (a)  
18 liability insurance from the Nuclear  
19 Energy Liability Insurance Association  
20 and the Mutual Atomic Energy  
21 Liability Underwriters, or  
22 equivalent insurance in such amount  
23 and in such form as shall meet the  
24 financial protection requirements of  
25 the Atomic Energy Commission pursuant  
26 to Subsection 1701 of the Atomic

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1 Energy Act of 1954, as amended,  
2 and (b) a Government Indemnity  
3 Agreement with the Atomic Energy  
4 Commission pursuant to Subsection  
5 170c of the Atomic Energy Act of 1954,  
6 as amended.

7 8.3.2 Nuclear property damage insurance  
8 from the Nuclear Energy Property  
9 Insurance Association and the  
10 Mutual Atomic Energy Reinsurance  
11 Pool, or Nuclear Mutual, Ltd., or  
12 equivalent insurance, and any  
13 additional nuclear property damage  
14 insurance coverage in such amount  
15 and such form as are agreed upon  
16 by the Companies.

17 8.4 The insurable values, limits, deductibles,  
18 retentions, and other special terms, covenants and  
19 conditions of the Project Insurance shall be agreed upon  
20 by the Companies prior to the placement of such insurance.

21 8.5 Both Companies shall be named insureds,  
22 individually and jointly, on the insurance described in  
23 Sections 8.1 and 8.3 hereof, and the comprehensive bodily  
24 injury and property damage liability insurance referred  
25 to in Section 8.1.1 hereof shall carry cross liability  
26 endorsements.

1           8.6    Project Insurance policies shall be primary  
2 insurance for all purposes and shall be so endorsed; provided,  
3 that the liability insurance referred to in Section 8.1.1 may  
4 be excess of insurance being provided by a contractor. Any  
5 other insurance carried by a Company individually shall not  
6 participate with the Project Insurance as respects any loss  
7 or claim for which valid and collectible Project Insurance  
8 shall apply. Such other insurance shall apply solely as  
9 respects the individual interests of the Company carrying  
10 such other insurance.

11           8.7    Each of the policies of Project Insurance shall  
12 be endorsed so as to provide that all additional named insureds  
13 shall be given the same advance notice of cancellation or  
14 material change as that required to be given to the Project  
15 Director.

16           8.8    The Project Director shall furnish each  
17 Company with either a certified copy of each of the policies  
18 of Project Insurance or a certified copy of each of the policy  
19 forms of Project Insurance, together with a line sheet therefor  
20 (and any subsequent amendments) naming the insurers and  
21 underwriters and the extent of their participation. When  
22 the policies or policy forms of Project Insurance have been  
23 approved in writing by both Companies, said policy forms  
24 shall not be modified or changed by any Company without the  
25 prior written consent of the other Company, except for  
26 minor and non-substantial changes or modifications, as to

1 which notification shall be given by the Project Director to  
2 the Companies.

3 8.9 The Project Director may at its option be in  
4 whole or in part a self-insurer for workmen's compensation to  
5 the extent the benefits thereunder may be extended to employees  
6 of the Project Director at Units 2 and 3.

7 8.10 If either Company's insurance program affords  
8 equal or better coverage on a more favorable cost basis than  
9 that available to the Project Director, the Companies may  
10 agree that such insurance program may be utilized to afford all  
11 or part of the insurance required by Sections 8.1 and 8.3  
12 hereof.

13 8.11 Nothing herein shall prohibit the Project  
14 Director or any Company from furnishing a policy of Project  
15 Insurance which combines the coverage required by this  
16 Agreement with coverage outside the scope of that required  
17 by this Agreement. If the Project Director or either Company  
18 furnishes such a policy of Project Insurance, the Companies  
19 shall agree on the portion of the total premium cost which  
20 is allocable to Project Insurance. If the Companies are  
21 unable to agree on such allocation, the Project Director may  
22 make an estimated allocation and bill the Companies on the  
23 basis thereof, with adjustment to be made when the dispute  
24 is resolved.

25 8.12 Except as provided in Section 8.13 hereof,  
26 if either Company desires charges in any Project Insurance

1 policy, such Company shall notify the Project Director  
2 and the other Company in writing of the desired changes not  
3 less than ninety days prior to the renewal or anniversary  
4 date of such Project Insurance policy.

5 8.13 Each Company shall have the right by written  
6 notice to the Project Director to name any mortgagee, trustee  
7 or secured party on all or any of the Project Insurance  
8 policies as loss payees or additional insureds as their  
9 interest may appear.

10 8.14 If the Companies are unable to agree upon  
11 any matters relating to the Project Insurance, the Project  
12 Director, pending resolution of such disagreement, shall  
13 procure such policies of insurance as in its best judgment  
14 are necessary and required to protect the Companies against  
15 the insurable risks for which Project Insurance is required.  
16 During any period of negotiations with an insurer, or other  
17 negotiations which are pending at the expiration of the  
18 period of coverage of a Project Insurance policy, or if a  
19 Project Insurance policy is cancelled, the Project Director  
20 shall renew or bind policies as an emergency measure or may  
21 procure policies of insurance which are identical to those  
22 which were cancelled, or may to the extent possible secure  
23 replaceable policies which will provide substantially the  
24 same coverage as the policy expiring or cancelled.

25 9. LIABILITY:

26 9.1 As used in this Section 9, the following terms

1 have the following meanings exclusively:

2 9.1.1 "Damage" means any loss, damage,  
3 cost, charge or expense resulting  
4 from the performance or nonperformance  
5 by a Company or the Companies of  
6 Project Work, or the performance  
7 or nonperformance by a Company or the  
8 Companies of any of the Project  
9 Agreements.

10 9.1.2 "Nuclear Incident" means a nuclear  
11 incident as defined in Section 11g or  
12 the Atomic Energy Act of 1954, as  
13 amended.

14 9.1.3 "Uninsured Damage" means Damage not  
15 paid for by Project Insurance.

16 9.2 Except as provided in Section 9.3 hereof,  
17 neither Company will be liable to the other Company for  
18 Uninsured Damage resulting from a Nuclear Incident.

19 9.3 Neither Company, its directors, officers or  
20 employees shall be obligated to discharge any liability to  
21 the other Company in excess of \$2,000,000 for any single  
22 occurrence for any direct, indirect or consequential  
23 Uninsured Damage of any kind or nature suffered by the other  
24 Company, resulting from Willful Action and resulting from or  
25 arising out of a Nuclear Incident. Each Company expressly  
26 releases the other Company, its directors, officers and

1 employees from any such liability in excess of \$2,000,000 per  
2 occurrence and from any judgment in excess of \$2,000,000 per  
3 occurrence obtained against a Company, its directors,  
4 officers or employees, for any such liability. Neither  
5 Company shall execute, levy or otherwise enforce such a  
6 judgment, or record or effect a judgment lien, against the  
7 other Company, its directors, officers or employees for any  
8 part of such judgment in excess of \$2,000,000 per occurrence.

9           9.4 Subject to Sections 9.2 and 9.3 hereof and  
10 except for Uninsured Damage resulting from Willful Action  
11 (and not resulting from or arising out of a Nuclear Incident),  
12 neither Company, its directors, officers or employees shall  
13 be obligated to discharge any liability to the other Company,  
14 for any direct, indirect or consequential Uninsured Damage  
15 of any kind or nature suffered by the other Company, whether  
16 or not resulting from the negligence of a Company, its  
17 directors, officers, employees or any other person or entity  
18 whose negligence would be imputed to a Company. Subject to  
19 the exceptions contained in this Section 9.4, each Company  
20 expressly releases the other Company, its directors, officers  
21 and employees for any such liability. Neither Company shall  
22 execute, levy or otherwise enforce a judgment for such  
23 liability, including recording or effecting a judgment lien,  
24 against the other Company, its directors, officers, or  
25 employees.

26           9.5 Subject to Sections 9.2 and 9.3 hereof and

1 except for liability for Uninsured Damage resulting from  
2 Willful Action (and not resulting from or arising out of  
3 a Nuclear Incident), and except as provided in Sections 9.6  
4 and 9.7 hereof, Edison shall pay eighty percent (80%) and  
5 San Diego shall pay twenty percent (20%) of:

6 9.5.1 The costs and expenses of discharging  
7 liability of one or both of the  
8 Companies for any direct, indirect  
9 or consequential Uninsured Damage  
10 of any kind or nature suffered by  
11 any party other than a Company, whether  
12 or not resulting from the negligence  
13 of a Company, its directors, officers  
14 and employees or any other person  
15 or entity whose negligence would be  
16 imputed to a Company; and

17 9.5.2 The costs and expenses incurred in  
18 settlement of injuries and damage  
19 claims, including attorneys' fees and  
20 the cost of labor and related supplies  
21 and expenses incurred in injuries and  
22 damages activities (all as referred  
23 to in FPC Account 925) resulting  
24 from or arising out of such liability.

25 9.6 Except for liability for Uninsured Damage  
26 resulting from Willful Action, either Company whose ultimate



1 consumer shall make a claim or demand or bring an action  
2 for any damage (including death or injury) arising out of  
3 electric service to such ultimate consumer shall indemnify and  
4 hold harmless the other Company, its directors, officers, and  
5 employees from and against any claim, demand or liability  
6 for such damage. The term "ultimate consumer" means any  
7 electric customer, except an electric utility system to which  
8 electric power is delivered for resale.

9           9.7 Except for liability for Uninsured Damage  
10 (including death or injury) resulting from Willful Action,  
11 each Company shall bear the total costs of discharging all  
12 legal liability imposed upon it or the other Company,  
13 including attorneys' fees and other associated costs, arising  
14 out of workmen's compensation claims, or employers' liability  
15 claims, brought by its employees; provided, that the  
16 cost of discharging such liability, including attorneys' fees  
17 and other associated costs, arising out of such workmen's  
18 compensation claims brought by a Company's personnel whose  
19 labor expenses are charged or allocated to the Project Work  
20 shall be shared eighty percent (80%) by Edison and twenty  
21 percent (20%) by San Diego.

22 10.           AUTHORIZATIONS AND APPROVALS: The Project Director,  
23 assisted as necessary by San Diego, will be responsible for  
24 obtaining the required authorizations and approvals for the  
25 Project Work. Such authorizations and approvals may include,  
26 but are not necessarily limited to, the following (those items

1 marked with an asterisk (\*) indicate the areas in which the  
2 Companies will make joint application):

3 10.1 Atomic Energy Commission

4 10.1.1 Construction permit\*

5 10.1.2 Operating license\*

6 10.1.3 Special nuclear material license\*

7 10.2 Public Utilities Commission

8 10.2.1 Certificates of convenience and  
9 necessity\*

10 10.2.2 Authorization for financial agreement  
11 relative to the financing of the  
12 English Electric turbine-generators\*

13 10.3 State Resources Agency

14 10.3.1 Siting agreement\*

15 10.4 State Lands Commission

16 10.4.1 Sand disposal and temporary working  
17 area permit\*

18 10.4.2 Offshore conduit easement and  
19 construction permit\*

20 10.5 San Diego Regional Water Quality Control Board

21 10.5.1 Sand disposal permit\*

22 10.5.2 Industrial waste discharge resolution\*

23 10.6 State Water Resources Control Board

24 10.6.1 Certification of compliance with water  
25 quality standards\*

26 10.7 Army Corps of Engineers

- 1 10.7.1 Offshore conduit construction permit\*
- 2 10.7.2 Sand disposal permit\*
- 3 10.7.3 Discharge permit\*
- 4 10.8 U.S. Coast Guard
- 5 10.8.1 Aid to navigation agreement
- 6 10.9 State Department of Public Health
- 7 10.9.1 Radiological monitoring program
- 8 approval\*
- 9 10.9.2 Radioactive materials license
- 10 10.10 U.S. Marine Corps
- 11 10.10.1 Soil disposal agreement
- 12 10.10.2 Temporary easement for 220-kV trans-
- 13 mission lines
- 14 10.10.3 Sand disposal permit
- 15 10.10.4 Telephone line relocation approval
- 16 10.11 Santa Fe Railway
- 17 10.11.1 Temporary right-of-way encroachment
- 18 permit
- 19 10.11.2 Spur track approval
- 20 10.12 State Department of Highways
- 21 10.12.1 U.S. Highway 101 relocation
- 22 10.13 State Department of Highways/U.S. Marine Corps
- 23 10.13.1 Encroachment permit for permanent
- 24 access road
- 25 10.13.2 Temporary encroachment permits for:
- 26 10.13.2.1 Access road to Site A

1 10.13.2.2 220-kV and 138-kV temporary  
2 lines on shoulders of old  
3 U.S. 101

4 10.13.2.3 Duct bank and fireline  
5 installation

6 10.14 Pacific Telephone and Telegraph Company

7 10.14.1 Approval to relocate U.S. Marine Corps  
8 communication cable within PT&T  
9 Company's easement

10 10.14.2 Duct bank and fireline crossing

11 10.15 California Coastal Zone Commission

12 10.15.1 Any permits required under the  
13 California Coastal Zone Conservation  
14 Act of 1972. \*

15 10.16 Switchyard and Transmission Line Approvals

16 10.16.1 Each Company shall be responsible for  
17 obtaining at its own expense, its  
18 required authorizations and approvals,  
19 if any, relating to its switchyard at  
20 Site A, the Edison Switchyard, the  
21 San Diego Switchyard, and transmission  
22 lines into and out of said switchyards.

23 11. RELATIONSHIP OF PARTIES:

24 11.1 The covenants, obligations and liabilities  
25 of the Companies under the Project Agreements are intended  
26 to be several and not joint or collective, and nothing

1 herein contained shall ever be construed to create an  
2 association, joint venture, trust or partnership, or to  
3 impose a trust or partnership covenant, obligation or  
4 liability on or with regard to either of the Companies.  
5 Each Company shall be individually responsible for its own  
6 covenants, obligations and liabilities as herein provided.  
7 Neither Company shall be under the control of or shall be  
8 deemed to control the other Company. No Company shall have  
9 a right or power to bind the other Company without its  
10 express written consent, except as expressly provided in  
11 the Project Agreements.

12           11.12 The Companies hereby elect to be excluded  
13 from the application of Subchapter "K" of Chapter 1 of  
14 Subtitle "A" of the Internal Revenue Code of 1969, or such  
15 portion or portions thereof as may be permitted or authorized  
16 by the Secretary of the Treasury or his delegate insofar as  
17 such subchapter, or any portion or portions thereof, may  
18 be applicable to the Companies under the Project Agreements.

19 12.           ARBITRATION:

20           12.1 If the Companies, acting through their  
21 respective Coordinating Representatives, are unable to reach  
22 agreement with respect to a matter herein specified to be  
23 approved, established, determined, or resolved by agreement  
24 of the Companies, or by their representatives appointed  
25 pursuant to this Agreement, either Company may call for  
26 submission of such matter or dispute to arbitration in the

1 manner herein set forth, which call shall be binding upon  
2 the other Company to the dispute. The Project Director shall  
3 continue to do all things and make all expenditures necessary  
4 for the Project Work pending the final decision of the  
5 arbitrators.

6           12.2 The Company calling for arbitration shall  
7 give notice to the other Company, setting forth in such  
8 notice in adequate detail the issues to be arbitrated, and  
9 within ten days from receipt of such notice the other  
10 Company may by notice to the first Company set forth in  
11 adequate detail additional related issues to be arbitrated.

12           12.3 Within twenty days from its notice calling  
13 for the arbitration, the first Company shall appoint a  
14 person to serve as one arbitrator, and shall give notice  
15 to the other Company of such appointment, and within  
16 fifteen days after receipt of notice of appointment of the  
17 first arbitrator, the other Company shall appoint a person  
18 to serve as a second arbitrator, and shall give notice to  
19 the first Company of such appointment. The two persons so  
20 appointed shall then agree upon and secure a third arbitrator.  
21 If the second arbitrator should not be appointed within  
22 fifteen days from the appointment of the first or if the  
23 third arbitrator should not be secured within fifteen days  
24 from the appointment of the second, either Company may with  
25 notice to the other Company call upon the American Arbitration  
26 Association (or upon a similar organization if the American

1 Arbitration Association should not at that time exist) for  
2 appointment of an arbitrator or arbitrators skilled with  
3 respect to the matter to be arbitrated, and whose appointment  
4 shall be binding on both Companies. No person shall be  
5 eligible for appointment by the American Arbitration  
6 Association who is an officer, employee, shareholder of, or  
7 otherwise interested in either of the Companies or in the  
8 matter to be arbitrated.

9           12.4 The arbitrators so appointed shall hear  
10 evidence submitted by both Companies and may call for  
11 additional information, which additional information the  
12 Companies or Company called upon shall furnish to the  
13 extent feasible. A decision or determination signed by a  
14 majority of the arbitrators shall be conclusive with respect  
15 to the issues submitted and shall be binding upon both  
16 Companies.

17           12.5 Except as otherwise provided in Sections 12.1,  
18 12.2, 12.3, and 12.4 hereof, the arbitration shall be governed  
19 by the rules of practice and procedure of the American  
20 Arbitration Association from time to time in force, except  
21 that, if such rules and practice as herein modified shall  
22 conflict with the California Code of Civil Procedure or any  
23 other provision of California law then in force, such  
24 California rules and provisions shall govern. This submission  
25 and agreement to arbitrate shall be specifically enforceable.  
26 The award of the arbitrators or a majority of them upon any



1 question submitted to them hereunder shall be final and  
2 binding upon the Companies to the extent and in the manner  
3 provided by the California Code of Civil Procedure.

4           12.6 Each Company shall bear the fee and personal  
5 expenses of the arbitrator appointed by it, together with  
6 the fees and expenses of its own counsel and of its own  
7 witnesses, and all other costs and expenses of the arbitration  
8 shall be borne equally by the Companies, unless a decision of  
9 the arbitrators shall specify a different apportionment of  
10 any or all of such costs and expenses.

11 13.           PAYMENT OF TAXES

12           13.1 The Companies shall use their best efforts  
13 to have any taxing authority imposing any property taxes  
14 or other taxes, excluding any sales or use taxes, and  
15 assessments on Units 2 and 3 assess and levy such taxes and  
16 assessments directly against each Company in proportion to its  
17 Participation Share.

18           13.2 All taxes or assessments levied against each  
19 Company shall be the sole responsibility of the Company upon  
20 whom such taxes and assessments were levied directly against  
21 one Company in behalf of both Companies.

22           13.3 If any property taxes and other taxes and  
23 assessments on Units 2 and 3 are levied and assessed in a  
24 manner other than specified in Section 13.1 hereof, such  
25 taxes or assessments will be paid by the Company against  
26 whom such tax or assessment is levied. The amount of such



1 taxes or assessments will be charged to the proper account  
2 for cost sharing in proportion to the Participation Shares.

3 14. START-UP:

4 14.1 Edison, as Operating Agent, shall establish  
5 a separate account for accumulation of all costs relating to  
6 the Start-Up Period of Units 2 and 3. Charges in such account  
7 shall include (a) the cost (normally capitalized in accordance  
8 with FPC Accounts) of all expenses (excluding the cost of the  
9 Engineer-Constructor start-up crews) and (b) an allowance  
10 for the payroll loading and administrative and general expense  
11 determined in accordance with Section 6 hereof.

12 14.2 Edison, as Project Director, shall charge all  
13 such costs accumulated in such account to Construction Costs.

14 14.3 During the Start-Up Period for Unit 2 and  
15 Unit 3, the Companies shall be obligated to take delivery  
16 of power and energy generated by and available from each  
17 such unit in proportion to their Participation Shares.

18 15. NOTICES: All notices under this Agreement shall  
19 be in writing and shall be delivered in person or sent by  
20 registered or certified mail to the applicable of the  
21 following addressees:

22 Southern California Edison Company  
23 c/o Secretary  
Post Office Box 800  
24 Rosemead, California 91770

25 San Diego Gas & Electric Company  
c/o Vice President - Electric  
26 Post Office Box 1831  
San Diego, California 92112

1 By notice sent to the other Company,  
2 either Company may designate different persons or different  
3 addresses for the giving of notices hereunder.

4 16. UNCONTROLLABLE FORCES: Neither Company shall be  
5 considered to be in breach of any of the obligations hereunder  
6 to the extent failure of performance shall be due to  
7 uncontrollable forces. The term "uncontrollable forces" shall  
8 mean any cause beyond the control of a Company unable to  
9 perform such obligation, including, but not limited to,  
10 failure of facilities, flood, earthquake, storm, fire,  
11 lightning, and other natural catastrophies, epidemics, war,  
12 riot, civil disturbance, labor dispute, sabotage, Government  
13 priorities, restraint by Court order or public authority,  
14 and action or non-action by or failure to obtain the necessary  
15 authorizations or approvals from any Government agency or  
16 authority, which by exercise of reasonable diligence and  
17 foresight such Company could not reasonably have been expected  
18 to avoid and which by exercise of reasonable diligence it  
19 has been unable to overcome. Any Company rendered unable to  
20 fulfill any obligation by reason of uncontrollable forces  
21 shall exercise due diligence to remove such inability with  
22 all reasonable dispatch. Nothing contained herein shall be  
23 construed so as to require a Company to settle any strike or  
24 labor dispute in which it may be involved.

25 17. TERMINATION:

26 17.1 Either Company may terminate its obligations

1 under this Agreement by notice to the other Company if, after  
2 using its best efforts, it is unable to obtain any required  
3 authorization or approval referred to in Section 10 hereof  
4 or any other authorization or approval as required by law or  
5 if any such authorization or approval, when issued, made or  
6 effected shall include an unforeseen condition that would  
7 have a substantial adverse economic effect on such Company.

8           17.2 In the event of a termination by either  
9 Company pursuant to Section 17.1 hereof, all costs and  
10 expenses (including interest during construction) incurred by  
11 the terminating Company in connection with Units 2 and 3 and  
12 the terminating Company's Participation Share of accumulated  
13 Construction Costs incurred up to the date of such termination  
14 shall be borne by the terminating Company.

15           17.3 The interests of such terminating Company in  
16 Units 2 and 3 may be acquired by the other Company for an  
17 amount equal to the terminating Company's then contribution  
18 to Construction Costs and all other costs and expenses (includ-  
19 ing the allowance for funds used during construction) incurred  
20 by such terminating Company in connection with Units 2 and 3.

21           17.4 If the Company not terminating does not wish  
22 to acquire the interests of the terminating Company, all  
23 costs and expenses incurred to implement such total termination  
24 of Units 2 and 3 shall be shared in proportion to the  
25 Participation Share of each Company.

26 18.           ADDITIONAL AGREEMENTS AND CONSENTS:   Each Company

1 agrees to negotiate in good faith and to proceed with  
2 diligence to obtain all agreements and consents required  
3 by it to be obtained, necessary to implement this Agreement,  
4 between such Company and the other Company or other parties.

5 19. OTHER AGREEMENTS: This Agreement supersedes the  
6 letter agreement between the Companies concerning liability  
7 and insurance dated August 21, 1970, and shall operate to  
8 terminate the letter agreement between the Companies concerning  
9 project costs prior to a definitive Construction Agreement  
10 dated September 9, 1970, both in connection with Units 2 and 3.

11 20. COMPLETION OF PROJECT WORK: The Project Work shall  
12 be deemed to have been completed as follows:

13 20.1 When the Project Director deems the Project  
14 Work to be completed in accordance with this Agreement, the  
15 Project Director shall serve notice of that fact upon San  
16 Diego. If San Diego does not object within one hundred and  
17 twenty days after its receipt thereof, by notice to Edison,  
18 acting as Project Director, which notice shall specify the  
19 items of Project Work claimed not to be completed, the  
20 Project Work shall be deemed to have been completed one  
21 hundred and twenty days after receipt of such notice by  
22 San Diego from the Project Director.

23 20.2 If objection is made by San Diego under  
24 Section 20.1 hereof, the Project Work shall be deemed to  
25 have been completed when both Companies agree, or when a  
26 binding determination through arbitration or otherwise has

1 been made to that effect.

2 21. TERM: Except as provided in Section 19 hereof,  
3 this Agreement shall become effective as of January 22, 1970,  
4 when it has been duly executed by Edison and San Diego, and  
5 shall continue in force until the obligations of the  
6 Companies have been performed or otherwise discharged.

7 IN WITNESS WHEREOF, the Companies have caused this  
8 Agreement to be executed in duplicate on their behalf as of  
9 the date first written above.

10  
11 ATTEST:

SAN DIEGO GAS & ELECTRIC COMPANY

12  
13  
14 J. Abraham  
15 SECRETARY

14 By W.R. [Signature]  
15 SENIOR VICE PRESIDENT

16  
17 ATTEST:

SOUTHERN CALIFORNIA EDISON COMPANY

18  
19  
20 Elaine Botwin  
21 ASSISTANT SECRETARY

20 By David J. Fogarty  
21 VICE-PRESIDENT

By [Signature]  
4-2-70  
1970  
Sector [Signature]

REQUEST FOR FUNDS - SAN ONOFRE UNITS 2 & 3

|   | SAN DIEGO<br>GAS AND<br>ELECTRIC<br>20% | SOUTHERN<br>CALIFORNIA<br>EDISON<br>80% | TOTAL |
|---|---|---|-------|
| Request for Week Ending                               |   |   |       |
| Engineer - Constructor Requirements<br>- Construction |   |   |       |
| Engineer - Constructor Requirements<br>- Engineering  |   |   |       |
| Turbine Generator                                     |   |   |       |
| Nuclear Steam Supply System                           |   |   |       |
| Project Director's Labor                              |   |   |       |
| Consultants   |   |   |       |
| Other Project Director's Costs                        |   |   |       |
| <b>TOTAL</b>  |   |   |       |

|   |  |  |  |
|---|--|--|--|
| Project Requests to Date                              |  |  |  |
| Engineer - Constructor Requirements<br>- Construction |  |  |  |
| Engineer - Constructor Requirements<br>- Engineering  |  |  |  |
| Turbine Generator                                     |  |  |  |
| Nuclear Steam Supply System                           |  |  |  |
| Project Director's Labor                              |  |  |  |
| Consultants   |  |  |  |
| Other Project Director's Costs                        |  |  |  |
| <b>TOTAL</b>  |  |  |  |

MEMORANDUM - Project Manager To Transfer Funds To

609 255

PREPARED BY

REQUEST NO. DATE

APPROVED

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AMENDMENT NO. 1

SAN ONOFRE UNITS 2 AND 3  
CONSTRUCTION AGREEMENT

BETWEEN

SAN DIEGO GAS & ELECTRIC COMPANY  
AND  
SOUTHERN CALIFORNIA EDISON COMPANY

1 AMENDMENT NO. 1  
2 SAN ONOFRE UNITS 2 AND 3  
3 CONSTRUCTION AGREEMENT

4 1. PARTIES: The Parties to this Amendment No. 1 to the San  
5 Onofre Units 2 and 3 Construction Agreement ("Construction  
6 Agreement") are: SAN DIEGO GAS & ELECTRIC COMPANY  
7 ("SAN DIEGO"), a California corporation, and SOUTHERN  
8 CALIFORNIA EDISON COMPANY ("EDISON"), a California  
9 corporation.

10 2. RECITALS: This Amendment No. 1 to the Construction  
11 Agreement is made with reference to the following facts,  
12 among others:

13 2.1 The Parties entered into the San Onofre Units  
14 2 and 3 Construction Agreement, dated May 24, 1973, to  
15 provide for their respective rights and obligations with  
16 respect to the construction of Units 2 and 3 at San Onofre.

17 2.2 The Parties desire to amend certain provisions  
18 of the Construction Agreement to more clearly provide  
19 for their respective rights and obligations with respect  
20 to the construction of switchyard facilities at San  
21 Onofre, to provide for a single arbitrator to resolve  
22 disputes and to revise the responsibility for preparation  
23 of the Composite Budget.

24 3. AGREEMENT: The Parties agree as follows:

25 3.1 Add Section 4.34 to the Construction Agreement  
26 as follows:

"4.34 Interconnection Facilities: The power circuit



1 breakers, conductors, bus support structures, disconnect  
2 switches, current transformers, potential transformers,  
3 relaying, metering, relaying and metering interface  
4 cabinets and taps to the 220 kV buses located in or  
5 associated with the bus sectionalizing position through  
6 which the Edison Switchyard and the San Diego Switchyard  
7 are connected and the common air conditioning unit  
8 and associated controls for the relay houses."

9 3.2 Amend Section 4.7 of the Construction Agreement  
10 to read as follows:

11 "4.7 Edison Switchyard: The 220 kV switchrack  
12 and related facilities at San Onofre connected to and  
13 located to the north of the Interconnection Facilities  
14 except for the power circuit breakers, transformer  
15 side disconnect switches, conductors, and dead-end  
16 assemblies associated with the main transformer leads  
17 and reserve auxiliary transformer leads, or any environ-  
18 mental radiation monitoring equipment installed therein.  
19 In addition, the controls associated with the Edison  
20 Switchyard located in the Units 2 and 3 control-administra-  
21 tion building are considered to be part of the Edison  
22 Switchyard."

23 3.3 Amend Section 4.21 of the Construction Agreement  
24 to read as follows:

25 "4.21 Project Work: All engineering, design  
26 construction, contract preparation, purchasing, super-

1 vision, expediting, inspection, accounting, testing,  
2 start-up, and regulatory licensing of and for Units 2 and  
3 3, the Interconnection Facilities, and other related  
4 facilities (but not the switchyard facilities at Site A,  
5 the Edison Switchyard and the San Diego Switchyard) as such  
6 work is more particularly described in Section 5 hereof."

7 3.4 Amend Section 4.25 of the Construction Agreement  
8 to read as follows:

9 "4.25 San Diego Switchyard: The 220 kV switchrack  
10 and related facilities at San Onofre connected to and  
11 located to the south of the Interconnection Facilities  
12 except for the power circuit breakers, transformer side  
13 disconnect switches, conductors, and dead-end  
14 assemblies associated with the main transformer leads  
15 and reserve auxiliary transformer leads, or any environ-  
16 mental radiation monitoring equipment installed therein."

17 3.5 Amend Section 6.1.3 of the Construction Agree-  
18 ment to read as follows:

19 "6.1.3 All components of the costs of construction  
20 including overhead costs associated with construction,  
21 temporary facilities, land and land rights, structures  
22 and improvements, and equipment for Units 2 and 3, and  
23 the Interconnection Facilities, as set forth in the  
24 FPC Accounts."

25 3.6 Amend Section 6.4 of the Construction Agreement  
26 to read as follows:

1           "6.4 Edison shall pay eighty percent (80%) and  
2 San Diego shall pay twenty percent (20%) of all Construc-  
3 tion Costs except for those Construction Costs incurred  
4 in connection with the Interconnection Facilities. Edison  
5 shall pay fifty percent (50%) and San Diego shall pay  
6 fifty percent (50%) of all Construction Costs incurred  
7 in connection with the Interconnection Facilities; pro-  
8 vided, however, that the costs of engineering and design  
9 for the Interconnection Facilities shall be shared as  
10 provided by the San Onofre Switchyard Letter Agreement  
11 between Edison and San Diego, dated May 6, 1974."

12           3.7 Amend Section 6.5.5 of the Construction Agree-  
13 ment to read as follows:

14           "6.5.5 Annually or more often, each Company shall  
15 prepare and submit to the Engineering Representatives  
16 a detailed budget of its expected monthly expenditures  
17 for Construction Costs for the two next following years."

18           3.8 Amend Section 6.5.6 of the Construction Agree-  
19 ment to read as follows:

20           "6.5.6 The Companies, through their Engineering  
21 Representatives, shall jointly revise the Composite  
22 Budget accordingly and submit such revised Composite  
23 Budget to the Coordinating Representatives for their  
24 review and approval."

25           3.9 Amend Section 6.5.8 of the Construction Agree-  
26 ment to read as follows:

1 "6.5.8 The Companies shall promptly advise each  
2 other if and when it becomes apparent that actual  
3 costs will differ materially from projected costs sub-  
4 mitted by such Company. If from time to time it becomes  
5 evident that the Composite Budget is in need of material  
6 revision, the Companies, acting through their Engineer-  
7 ing Representatives, shall promptly revise such Composite  
8 Budget and submit it to the Coordinating Representatives  
9 for their approval."

10 3.10 Amend Section 12.1, Page 45, Line 5, of the  
11 Construction Agreement by deleting the word "arbitrators"  
12 and inserting the word "arbitrator".

13 3.11 Amend Section 12.3 of the Construction Agree-  
14 ment to read as follows:

15 "12.3 Within twenty (20) days after the date of  
16 receipt of the initial notice of arbitration, the Parties,  
17 acting through their Coordinating Representatives, shall  
18 meet for the purpose of selecting one (1) arbitrator. In  
19 the event the Coordinating Representatives shall fail  
20 to select such arbitrator as herein provided, then such  
21 representatives shall request the American Arbitration  
22 Association (or a similar organization if the American  
23 Arbitration Association should not at that time exist)  
24 to provide a list of arbitrators, the number of which  
25 shall be one (1) more than there are sides to the dispute.  
26

1 The arbitrator selected above, if any, and all arbitrators  
2 on such list shall be available to serve and shall be  
3 skilled and experienced in the field which gives rise  
4 to the dispute, and no person shall be eligible for  
5 appointment as an arbitrator who is an officer, employee  
6 or shareholder of any of the parties to the dispute or  
7 is otherwise interested in the matter to be arbitrated.  
8 Within thirty (30) days after the date of receipt of  
9 such list, the Coordinating Representatives shall take  
10 turns striking names from said list. The last name  
11 remaining on said list shall be the selected arbitrator.  
12 Within ten (10) days after such selection, the Parties  
13 shall submit to such arbitrator the written notices pre-  
14 pared pursuant to Section 12.2 hereof."

15 3.12 Amend Section 12.4 of the Construction Agree-  
16 ment to read as follows:

17 "12.4 The arbitrator shall consider evidence sub-  
18 mitted by the Parties and may call for additional informa-  
19 tion. The Parties shall use their best efforts to  
20 furnish such additional information. The decision of  
21 the arbitrator shall be binding upon all the Parties."

22 3.13 Amend Section 12.5, Page 46, Line 26, of the  
23 Construction Agreement by deleting the words "arbitrators  
24 or a majority of them" and inserting the word "arbitrator".

25 3.14 Amend Section 12.6 of the Construction Agree-  
26 ment to read as follows:

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"12.6 The fees and expenses of the arbitrator shall be shared by the Parties equally, unless the decision of the arbitrator shall specify some other apportionment of such fees and expenses. All other expenses and costs of the arbitration shall be borne by the Party incurring the same."

3.15 Except as provided herein, the Construction Agreement shall remain in full force and effect in accordance with its terms.

IN WITNESS WHEREOF, the Parties hereto have caused this Amendment No. 1 to the Construction Agreement to be executed in duplicate as of the 8th day of March, 1977.

ATTEST:  
*W. J. Kama*  
SECRETARY  
3/8/77  
APPROVED AS TO FORM  
March 7, 1977  
*V. D. Master, Jr.*  
VIRGENIO D. MASTER, JR.  
Attorney

SAN DIEGO GAS & ELECTRIC COMPANY  
By: *B. W. Colsten*  
By: W. W. Colsten, Vice President - Project Management

ATTEST:  
*A. Arenal*

SOUTHERN CALIFORNIA EDISON COMPANY  
By: *A. Arenal*  
A. Arenal, Vice President

POOR ORIGINAL

EXHIBIT G

SAN ONOFRE OWNERSHIP AGREEMENT

609 - 264

SAN ONOFRE OWNERSHIP AGREEMENT

BETWEEN

SAN DIEGO GAS & ELECTRIC COMPANY

AND

SOUTHERN CALIFORNIA EDISON COMPANY

609 265





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2  
SAN ONOFRE OWNERSHIP AGREEMENT

4 THIS AGREEMENT, made as of this 5th day of  
5 October, 1967, between SAN DIEGO GAS & ELECTRIC  
6 COMPANY, hereinafter called "San Diego", and SOUTHERN  
7 CALIFORNIA EDISON COMPANY, hereinafter called "Edison",  
8 corporations organized and existing under and by virtue of  
9 the laws of the state of California, hereinafter referred to  
10 individually as "Company" and collectively as "Companies".

11 W I T N E S S E T H:

12 WHEREAS, San Diego and Edison have entered into  
13 an agreement entitled "Edison-San Diego Agreement" of  
14 March 8, 1963, to provide for their joint participation in  
15 the procurement, construction and operation of the San Onofre  
16 Nuclear Generating Station.

17 WHEREAS, Edison and San Diego propose to enter  
18 into the Amended San Onofre Operating Agreement and the San  
19 Onofre Interconnection Agreement.

20 WHEREAS, Edison and San Diego desire to  
21 supplement the aforesaid Edison-San Diego Agreement in regard  
22 to incidents of ownership as tenants in common, waiver of  
23 partition, transfer of ownership and other matters with  
24 respect to the San Onofre Nuclear Generating Station.

25 NOW THEREFORE, in consideration of the terms  
26 and conditions herein set forth to be performed by each of

1 the Companies, respectively, the Companies agree as follows:

2 1. DEFINITIONS

3 Whenever used herein, the following terms shall  
4 have the following meanings, exclusively:

5 1.1 Access Road Area:

6 An area of land described in an easement  
7 granting rights for access and other purposes  
8 relating to the San Onofre Nuclear Generating  
9 Station by the United States to Edison and San  
10 Diego on May 12, 1964, recorded in the Official  
11 Records, Office of the County Recorder of San  
12 Diego County, in Series 5, Book 1964, Page No.  
13 85889. Such land area consisting of approxi-  
14 mately 3.68 acres in the northwest corner of the  
15 Marine Corps Base, Camp Pendleton, California,  
16 is shown in Exhibit A and further described in  
17 Exhibit A-1, both attached hereto.

18 1.2 Additional Generating Unit:

19 Any facility for the generation of electrical  
20 energy (including all auxiliary and associated  
21 equipment) constructed or installed at the San  
22 Onofre Nuclear Generating Station other than  
23 Unit 1 or generating facilities necessary for the  
24 operation of Unit 1.

25 1.3 Amended San Onofre Operating Agreement:

26 The agreement the Companies propose to enter

1 into which will provide for the operation and  
2 maintenance of Unit 1 and other portions of the  
3 San Onofre Nuclear Generating Station to the  
4 extent provided therein.

5 1.4 Capital Addition:

6 Any item of property which is added to Unit 1  
7 and which does not replace any pre-existing unit  
8 of property constituting a part of Unit 1 or any  
9 added land or land right, which does not replace  
10 any existing land or land right, necessary for  
11 the operation of Unit 1 and which, in accordance  
12 with Prescribed Accounting Practice, would be  
13 capitalized.

14 1.5 Capital Betterment:

15 The enlargement or improvement of any unit of  
16 property constituting a part of Unit 1 or the  
17 replacement thereof, where such replacement  
18 constitutes an enlargement or improvement of the  
19 unit of property replaced and which, in  
20 accordance with Prescribed Accounting Practice,  
21 would be capitalized.

22 1.6 Capital Improvement:

23 A Capital Replacement, Capital Betterment or  
24 Capital Addition.

25 1.7 Capital Replacement:

26 The replacement of any unit of property

1 constituting a part of Unit 1 where such  
2 replacement does not constitute an enlargement  
3 or improvement of the unit of property replaced  
4 and which, in accordance with Prescribed  
5 Accounting Practice, would be capitalized.

6 1.8 Edison Switchyard:

7 The 220-kv switchrack and related facilities  
8 located within the Edison Switchyard Area and  
9 any facilities subsequently installed or con-  
10 structed therein by Edison, but not including  
11 the conductors and dead-end assemblies for the  
12 220-kv Unit 1 main transformer leads or any  
13 environmental radiation monitoring equipment  
14 installed therein. For purposes of this  
15 Agreement, the following items located in the  
16 Unit 1 control-administration building are also  
17 considered to be part of the Edison Switchyard:

18 1.8.1 Controls, indicating lights and  
19 instruments associated with Edison's  
20 220-kv switchrack facilities.

21 1.8.2 Tap changing controls and associated  
22 indicating meters for San Diego's  
23 220/138-kv autotransformers.

24 1.8.3 Meters and devices for interconnection  
25 metering and Edison's associated tele-  
26 metering equipment.

1 1.9 Edison Switchyard Area:

2 An area of land used as the site of the Edison  
3 Switchyard and, at present, as the site of the  
4 Nuclear Information Center. Such land area  
5 consisting of approximately 3.66 acres within  
6 the Plant Site is shown in Exhibit A and further  
7 described in Exhibit A-2 both attached hereto.

8 1.10 FPC Accounts:

9 The Federal Power Commission's "Uniform System  
10 of Accounts Prescribed for Public Utilities and  
11 Licensees (Class A and Class B), in Effect on  
12 March 1, 1965, Subject to the Provisions of the  
13 Federal Power Act".

14 1.11 Nuclear Information Center:

15 The structures and associated facilities  
16 designated in Exhibit A (attached hereto) as  
17 the Nuclear Information Center located within the  
18 unfenced portion of the Edison Switchyard Area  
19 and any subsequent improvements of or additions  
20 to said structures and facilities.

21 1.12 Off-Shore Land:

22 A strip of tide and submerged land used for  
23 circulating water conduits for the San Onofre  
24 Nuclear Generating Station described in an ease-  
25 ment-lease for such purpose from the State of  
26 California to Edison and San Diego beginning on

1 September 24, 1964 and recorded in the Official  
2 Records, Office of the County Recorder of San  
3 Diego County, in Series 5, Book 1964, Page No.  
4 235236. Such land area consisting of approxi-  
5 mately 7.599 acres is shown in Exhibit A and  
6 further described in Exhibit A-3, both attached  
7 hereto.

8 1.13 Operating Emergency:

9 Any unanticipated event or circumstance which,  
10 at the time of such event or circumstance, either  
11 reduces or will have the reasonably anticipated  
12 effect of reducing the generation of electrical  
13 energy by Unit 1 or either impairs or will have  
14 the reasonably anticipated effect of impairing  
15 the operation of the switchyard facilities.

16 1.14 Plant Site:

17 An area of land used for the major portion of  
18 the San Onofre Nuclear Generating Station  
19 described in an easement granted for such pur-  
20 pose by the United States to Edison and San  
21 Diego on May 12, 1964 and recorded in the  
22 Official Records, Office of the County Recorder  
23 of San Diego County, in Series 5, Book 1964,  
24 Page No. 85887. Such land area consisting of  
25 approximately 83.63 acres in the northwest  
26 corner of the Marine Corps Base, Camp Pendleton,



1 California, is shown in Exhibit A and further  
2 described in Exhibit A-4, both attached hereto.

3 1.15 Prescribed Accounting Practice:

4 Generally accepted accounting principles, in  
5 accordance with FPC Accounts, applicable to  
6 electric utility operations.

7 1.16 Project Easements:

8 The interests acquired under (1) three easements  
9 in favor of Edison and San Diego granted by the  
10 United States of America, covering respectively,  
11 the Plant Site, including the associated  
12 exclusion area, the Access Road Area, and the  
13 Spur Track Area, all recorded in the Official  
14 Records of San Diego County and hereinafter some-  
15 times referred to respectively as the Plant Site  
16 Easement, the Access Road Easement and the Spur  
17 Track Easement; (2) the easement-lease covering  
18 the Off-Shore Land; (3) a license granted to the  
19 Companies by the Atchison, Topeka and Santa Fe  
20 Railway perfecting the rights of the Companies  
21 for those portions of the Access Road Area  
22 lying within the railroad right of way; and (4)  
23 any Subsequent Acquisition.

24 1.17 San Diego Switchyard:

25 The 220-kv and 138-kv switchracks, 220/138-kv  
26 autotransformers; and related facilities located

1 within the San Diego Switchyard Area and any  
2 facilities subsequently installed or constructed  
3 therein by San Diego, but not including the con-  
4 ductors and dead-end assemblies for the 138-kv  
5 auxiliary "C" transformer leads.

6 1.18 San Diego Switchyard Area:

7 An area of land used as the site of the San Diego  
8 Switchyard. Such land area consisting of approxi-  
9 mately 2.72 acres within the Plant Site is shown  
10 in Exhibit A and further described in Exhibit A-5  
11 both attached hereto.

12 1.19 San Onofre Interconnection Agreement:

13 The agreement the Companies propose to enter  
14 into which will provide for the operation and  
15 maintenance of the Edison and San Diego Switch-  
16 yards through which their respective systems are  
17 interconnected.

18 1.20 San Onofre Nuclear Generating Station:

19 The entire nuclear generating facility located  
20 on a site of approximately 90 acres in the  
21 northwest corner of the Marine Corps Base, Camp  
22 Pendleton, California, consisting of the Plant  
23 Site (including the Edison Switchyard Area and  
24 San Diego Switchyard Area), the Access Road Area,  
25 the Spur Track Area, the Off-Shore Land, any  
26 Subsequent Acquisitions, Unit 1, the Nuclear

1 Information Center, the Edison Switchyard, the  
2 San Diego Switchyard, and any Additional  
3 Generating Units subsequently constructed or  
4 installed.

5 1.21 Spur Track Area:

6 An area of land used for a railroad spur track,  
7 pipelines, and communication lines for the San  
8 Onofre Nuclear Generating Station described in  
9 an easement granted for such purpose by the  
10 United States to Edison and San Diego on May 12,  
11 1964 and recorded in the Official Records,  
12 Office of the County Recorder of San Diego  
13 County, in Series 5, Book 1964, Page No. 85888.  
14 Such land area consisting of approximately 5.14  
15 acres in the northwest corner of the Marine Corps  
16 Base, Camp Pendleton, California, is shown in  
17 Exhibit A and further described in Exhibit A-6,  
18 both attached hereto.

19 1.22 Subsequent Acquisition:

20 Any future acquisition by either Edison or San  
21 Diego of land or land rights necessary for the  
22 operation of Unit 1.

23 1.23 Unit 1:

24 The first nuclear generating unit, consisting  
25 of a nuclear steam supply system, a turbine-  
26 generator designed to generate approximately

1 450 megawatts (gross) of electric power, and  
2 all related equipment and facilities which are  
3 necessary for the safe and efficient generation  
4 of electricity, installed on the Plant Site, the  
5 Access Road Area, the Spur Track Area, and the  
6 Off-Shore Land, but excluding the Edison Switch-  
7 yard, San Diego Switchyard, and the Nuclear  
8 Information Center.

9 2. OWNERSHIP

10 2.1 Unit 1: Edison and San Diego shall receive  
11 title to Unit 1 and thereafter own Unit 1 as  
12 tenants in common as follows:

13 2.1.1 Edison shall own an undivided eighty (80)  
14 percent interest therein;

15 2.1.2 San Diego shall own an undivided twenty  
16 (20) percent interest therein.

17 2.2 Switchyards: Edison and San Diego shall receive  
18 title to and thereafter own the Switchyards con-  
19 structed at the San Onofre Nuclear Generating  
20 Station as follows:

21 2.2.1 Edison shall be the sole owner of the  
22 Edison Switchyard;

23 2.2.2 San Diego shall be the sole owner of  
24 the San Diego Switchyard;

25 provided, however, that this Section 2 2 shall  
26 in no way affect the interests of the Companies

1 in the Plant Site Basement.

2 2.3 Nuclear Information Center: Notwithstanding any  
3 agreement between the Companies concerning the  
4 sharing of costs of operating the Nuclear Infor-  
5 mation Center, Edison and San Diego shall receive  
6 title to and thereafter own as tenants in common  
7 the Nuclear Information Center as follows:

8 2.3.1 Edison shall own an undivided eighty  
9 (80) percent interest therein;

10 2.3.2 San Diego shall own an undivided twenty  
11 (20) percent interest therein.

12 2.4 Additional Generating Units: In the event that  
13 Additional Generating Units are installed or  
14 constructed at the San Onofre Nuclear Generating  
15 Station, Edison and San Diego shall receive  
16 title to and thereafter own as tenants in common  
17 all the facilities comprising each such  
18 Additional Generating Unit in accordance with  
19 Section 3 hereof and the agreements executed by  
20 the Companies in connection with the installation  
21 or construction of such unit.

22 2.5 Project Easements: Edison and San Diego shall  
23 receive title to the Project Easements and  
24 thereafter own the Project Easements as tenants  
25 in common as follows:

26 2.5.1 Edison shall own an undivided eighty (80)

1 percent interest therein;

2 2.5.2 San Diego shall own an undivided twenty (20)  
3 percent interest therein.

4 2.6 Subsequent Acquisitions: In the event that  
5 either Company makes a Subsequent Acquisition,  
6 it shall be deemed to have done so jointly with  
7 the other Company. Edison and San Diego shall  
8 receive title to and thereafter own as tenants  
9 in common any interest acquired in a Subsequent  
10 Acquisition, as follows:

11 2.6.1 Edison shall own an undivided eighty (80)  
12 percent interest therein;

13 2.6.2 San Diego shall own an undivided twenty  
14 (20) percent interest therein.

15 Immediately following any Subsequent  
16 Acquisition the Companies will execute and  
17 record appropriate instruments establishing their  
18 respective ownership interests as set forth in  
19 this Section 2.6.

20 2.7 Capital Improvements: Edison and San Diego  
21 shall receive title to and thereafter own any  
22 Capital Improvements as tenants in common as  
23 follows:

24 2.7.1 Edison shall own an undivided eighty (80)  
25 percent interest therein;

26 2.7.2 San Diego shall own an undivided twenty (20)

percent interest therein.

3. ADDITIONAL GENERATING UNITS

3.1 In order to utilize effectively the site of the San Onofre Nuclear Generating Station and to coordinate its development with the generating resources requirements of each Company, Edison and San Diego will conduct joint studies for the construction and operation of Additional Generating Units at the San Onofre Nuclear Generating Station. The Companies will prepare a plan for site development, (hereinafter called the "Plan") including any Additional Generating Unit, no later than January 1, 1968. Said Plan will thereafter be maintained and amended by the Companies to show any changes made thereto pursuant to Sections 3.2 and 3.3 hereof. At all times the Plan will set forth the expected size, proposed date of commitment, date of commercial operation, technical description, and estimated costs of any proposed Additional Generating Units. The Plan will also specify the participation, if any, desired by San Diego, which participation will not be less than ten (10) percent nor more than fifty (50) percent. Said Plan shall not operate to obligate or bind either Company in any manner except as provided



1                   In Section 3.4 hereof.

2           3.2       Proposed amendments to the Plan will be sub-  
3                   mitted in writing by the proposing Company to  
4                   the other Company. If both Companies agree to  
5                   such amendment, it shall be signed by the  
6                   appropriate representatives of each Company, and  
7                   such amendment will thereafter become a part of  
8                   the Plan.

9           3.3       In the event the Companies disagree with respect  
10                   to a proposed amendment or any part thereof, an  
11                   amendment will be prepared in writing embodying  
12                   all matters upon which the Companies agree and  
13                   the Edison proposals in matters where the  
14                   Companies do not agree; provided, however, that  
15                   any disagreement with respect to San Diego's  
16                   proportionate participation shall be resolved in  
17                   accordance with San Diego's proposal. Said  
18                   amendment will be signed by appropriate represen-  
19                   tatives of both Companies and will thereafter  
20                   become a part of the Plan. Except as provided  
21                   in Section 3.4 hereof, any amendment prepared in  
22                   accordance with this Section 3.3 which has not  
23                   been signed within thirty (30) days of its sub-  
24                   mission to the Companies shall, at the  
25                   expiration of said thirty (30) days, be deemed  
26                   an effective amendment to the Plan.



1           3.4       On the date of commitment specified in the Plan,  
2                   an appropriate officer of each Company shall  
3                   attend a Final Amendment Meeting (hereinafter  
4                   referred to as the "Meeting"). At the Meeting,  
5                   the Plan will be reviewed and confirmed or final  
6                   amendments to the Plan, if any, shall be pre-  
7                   pared. No amendments received after the Meeting  
8                   has adjourned shall become effective unless  
9                   permitted under Sections 3.4.1 or 3.4.2 hereof.

10           3.4.1       If an amendment pursuant to Section 3.3  
11                   is prepared at the Meeting and said amendment  
12                   substantially changes the Plan, San Diego may at  
13                   any time within the next thirty (30) days amend  
14                   the Plan to change its percentage participation  
15                   within the range of ten (10) to fifty (50) per-  
16                   cent, or San Diego may decline to participate in  
17                   the proposed Additional Generating Unit; pro-  
18                   vided, however, that San Diego must declare at  
19                   the Meeting whether it considers said amendment  
20                   to be substantial. Upon such declaration by San  
21                   Diego, the officers shall specify the dates on  
22                   which the thirty (30) day periods provided in  
23                   this section and in Section 3.4.2 shall expire.

24           3.4.2       If San Diego amends the Plan or declines to  
25                   participate, pursuant to Section 3.4.1 above,  
26                   Edison may within thirty (30) days of its receipt

1 of notice of such action, elect not to proceed  
2 with the Plan. If such election is made, the  
3 date of commitment shall be deemed to be extended  
4 for six (6) months. In the event San Diego  
5 declines to participate pursuant to Section 3.4.1  
6 above, Edison may proceed to construct an  
7 Additional Generating Unit without participation  
8 by San Diego. Any such Additional Generating  
9 Unit will be constructed in substantial  
10 accordance with the Plan.

11 3.4.3 At such time during the sixty (60) days  
12 following the date of commitment as both  
13 Companies are foreclosed from further amendments  
14 to the Plan or elections to withdraw pursuant to  
15 Sections 3.4.1 or 3.4.2 hereof, the Plan shall  
16 be deemed final and the Companies shall be bound,  
17 each to the other, to construct, own and operate  
18 the Additional Generating Unit in accordance  
19 with the final Plan.

20 3.4.4 The Companies may, at any time, by written  
21 agreement waive any of the foregoing provisions  
22 of this Section 3.4.

23 3.5 If pursuant to Section 3.4 hereof the Companies  
24 become bound to jointly construct and own an  
25 Additional Generating Unit they will promptly  
26 negotiate all necessary agreements for the owner-

1 ship, construction and operation of the proposed  
2 Additional Generating Unit on terms and conditions  
3 not less favorable proportionately to each  
4 Company than those provided for in this San  
5 Onofre Ownership Agreement and other agreements  
6 directly related thereto. If the Companies are  
7 unable to agree on any such necessary agreements,  
8 the ownership, operation and construction of the  
9 Additional Generating Unit will, subject to  
10 Section 3.6 hereof, be governed by this Agreement  
11 and all others directly related thereto, in all  
12 matters other than the proportionate sharing of  
13 costs and output of such Additional Generating  
14 Unit.

15  
16 3.6

17 In the event that an Additional Generating Unit  
18 is constructed and is to be owned or operated in  
19 different proportionate participation than in  
20 Unit 1, the Companies will amend this San Onofre  
21 Ownership Agreement and directly related agree-  
22 ments to apportion the ownership, use and cost  
23 of the Project Easements and any facilities,  
24 which are common to Unit 1 and such Additional  
25 Generating Unit so as to reflect such changes in  
26 proportionate participation. The Companies will  
also exercise their best efforts to provide each  
other with suitable releases from the liens of

1           their respective trust indentures or the Company  
2           not securing such a release shall provide the  
3           other with an opinion by its general counsel that  
4           no such release is required.

5       3.7    If San Diego does not participate in the  
6           construction, ownership or operation of an  
7           Additional Generating Unit, its right to partici-  
8           pate in subsequent Additional Generating Units,  
9           as set forth hereinabove, will be in no way  
10          diminished or prejudiced.

11   4.    NUCLEAR INFORMATION CENTER

12       The Nuclear Information Center shall be removed or  
13       demolished when construction or installation of an  
14       Additional Generating Unit causes Edison to require  
15       additional switchyard facilities which it deems cannot  
16       be adequately installed in the Edison Switchyard Area  
17       without such removal or demolition. The costs and  
18       salvage value incurred in connection with such removal  
19       or demolition shall be shared on the basis of the  
20       Companies' participation in such Additional Generating  
21       Unit. In the event of such removal or demolition the  
22       Companies may agree to relocate or rebuild the Nuclear  
23       Information Center.

24   5.    SWITCHYARDS

25       Each Company shall exercise exclusive control over its  
26       Switchyard and Switchyard Area; provided, however, that

1 in the event of an Operating Emergency, personnel of  
2 either Company may enter any Switchyard Area for the  
3 purpose of undertaking any immediately necessary action,  
4 in accordance with procedures to be established and  
5 approved by the Companies.

6 6. DESTRUCTION, DAMAGE OR CONDEMNATION OF UNIT 1

7 6.1 If all, or substantially all, of Unit 1 should  
8 be destroyed, damaged or condemned, then the  
9 Companies by agreement may elect to repair, re-  
10 store or reconstruct the damaged, destroyed or  
11 condemned facilities in such a manner as to  
12 restore the facilities to substantially the same  
13 general character or use as the original, or to  
14 such other character or use as the Companies  
15 may then mutually agree. In the event of such  
16 election, the costs of such repair, restoration  
17 or reconstruction shall be shared eighty (80)  
18 percent by Edison and twenty (20) percent by  
19 San Diego, and, upon completion thereof, the  
20 Companies' rights, titles and interests therein  
21 shall remain as provided in this Agreement.

22 6.2 Failure to reach such agreement within a  
23 reasonable period of time shall be deemed to be  
24 an election not to repair, restore or reconstruct  
25 the damaged, destroyed or condemned facilities,  
26 in which event the proceeds from any insurance

1 or from any award shall be distributed eighty  
2 (80) percent to Edison and twenty (20) percent  
3 to San Diego, and remaining Unit 1 facilities  
4 shall be disposed of by the Companies in a  
5 manner to be mutually agreed upon and the pro-  
6 ceeds resulting therefrom or the costs incurred  
7 thereby shall be shared eighty (80) percent by  
8 Edison and twenty (20) percent by San Diego.

9 6.3 In the event that less than substantially all of  
10 Unit 1 shall be destroyed, damaged or condemned,  
11 it shall be the obligation of the Companies to  
12 repair, restore or reconstruct the damaged,  
13 destroyed or condemned facilities in such a  
14 manner as to restore such facilities to sub-  
15 stantially the same general character or use as  
16 the original. The costs of such repair,  
17 restoration or reconstruction shall be shared  
18 eighty (80) percent by Edison and twenty (20)  
19 percent by San Diego.

20 7. MORTGAGE AND CREATION OF SECURITY INTERESTS

21 7.1 Edison and San Diego shall have the right at any  
22 time, and from time to time, to mortgage, or  
23 otherwise encumber their respective rights,  
24 titles and interests in the San Onofre Nuclear  
25 Generating Station and the Project Easements by  
26 conveyance to a trustee or trustees under deeds



1 of trust, mortgages or indentures, or by  
2 execution of security agreements or other  
3 obligations or securities, and to any successors  
4 or assigns thereof, without need for the prior  
5 written consent of the other Company.

6 7.2 Any mortgage, trustee or secured party under  
7 present or future deeds of trust, mortgages,  
8 indentures or security agreements of either  
9 Company and any successors or assigns thereof,  
10 and any receiver, referee or trustee in bank-  
11 ruptcy or reorganization of either Company, and  
12 any successor by action of law or otherwise,  
13 and any purchaser, transferee or assignee of  
14 any of the aforementioned secured parties, may  
15 succeed to and acquire all the rights, titles  
16 and interests of such Company in the San Onofre  
17 Nuclear Generating Station and the Project Ease-  
18 ments, and may take possession of or foreclose  
19 upon said property, rights, titles and interests  
20 of such Company, without need for the prior  
21 written consent of the other Company.

22 7.3 Any transfer, assignment, merger or consolidation  
23 made pursuant to the provisions of this Section 7  
24 shall not be subject to the terms and conditions  
25 set forth and contained in Section 8 hereof.

26 8. RIGHT OF FIRST REFUSAL

1           8.1       Except as is otherwise provided in Section 7  
2                   and Section 8.15 hereof, should either Company  
3                   desire to assign, transfer, convey or otherwise  
4                   dispose of (hereinafter collectively referred to  
5                   as "Assign") its rights, titles and interests in  
6                   the San Onofre Nuclear Generating Station, the  
7                   Project Easements or its entitlement to electric  
8                   capacity and associated energy in Unit 1 or any  
9                   part thereof or interest therein (hereinafter  
10                  referred to as "Transfer Interest"), to any  
11                  person, company, corporation, governmental agency  
12                  or any other party (hereinafter referred to as  
13                  "Third Party"), the remaining Company shall have  
14                  the right of first refusal, as hereinafter  
15                  described, to purchase for itself such Transfer  
16                  Interest.

17           8.2       After its receipt of a bona fide written offer  
18                   from a Third Party to purchase a Transfer  
19                   Interest and at least three (3) years prior to  
20                   its intended date to Assign, the Company desiring  
21                   to Assign its Transfer Interest shall serve  
22                   written notice of its intention to do so upon the  
23                   other Company. Such notice shall contain the  
24                   proposed date to Assign, the terms and conditions  
25                   of said bona fide written offer received by such  
26                   Company, and a proposal to Assign its Transfer



1 Interest to the remaining Company. The terms  
2 and conditions contained in such proposal  
3 shall be at least as favorable to the remaining  
4 Company as the terms and conditions of said bona  
5 fide written offer, or may be the same terms and  
6 conditions set forth in said offer.

7 8.3 The remaining Company shall signify its desire  
8 to purchase the Transfer Interest, or its desire  
9 not to purchase the Transfer Interest by serving  
10 written notice of such intention upon the Company  
11 desiring to Assign pursuant to Section 15 hereof  
12 within one hundred eighty (180) days after such  
13 service pursuant to Section 8.2 of the written  
14 notice of intention to Assign. Failure by a  
15 Company to serve notice as provided hereunder  
16 within the time period specified shall be con-  
17 clusively deemed to be notice of its intention  
18 not to purchase the Transfer Interest.

19 8.4 Such right of first refusal shall exist as of  
20 the effective date of this Ownership Agreement  
21 and shall continue for the term of this  
22 Ownership Agreement.

23 8.5 When intention to purchase the Transfer Interest  
24 has been indicated by a notice to purchase duly  
25 given pursuant to Section 8.3 hereof, the  
26 Companies shall thereby incur the following

obligations:

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8.5.1 The Company desiring to Assign and the Company desiring to purchase the Transfer Interest shall be obligated to proceed in good faith and with diligence to obtain all required authorizations and approvals to Assign;

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8.5.2 The Company desiring to Assign shall be obligated to obtain the release of any liens imposed by or through it upon any part of the Transfer Interest, and to Assign the Transfer Interest at the earliest practicable date thereafter; and

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8.5.3 The Company desiring to purchase the Transfer Interest shall be obligated to perform all terms and conditions required of it to complete the purchase of the Transfer Interest.

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8.6 Purchase of a Transfer Interest pursuant to Section 8.5 hereof shall be fully consummated within thirty (30) months following the date upon which the notice to purchase required to be given under this Section 8.3 has been duly served, unless the Companies are then diligently pursuing applications to appropriate regulatory bodies (if any) for required authorizations to effect such Assignment or are then diligently prosecuting or defending appeals from orders

1 entered or authorizations issued in connection  
2 with such applications. In the event such  
3 applications or appeals are in progress at the  
4 end of said thirty (30) months, the purchase of  
5 the Transfer Interest shall be fully consummated  
6 upon completion of said applications or appeals.  
7 If the Company desiring to purchase the Transfer  
8 Interest is barred from doing so by any regula-  
9 tory body or court from whose decision no appeal  
10 may be taken, the Company desiring to Assign may  
11 proceed to dispose of the Transfer Interest as  
12 if the other Company had declined to purchase  
13 the Transfer Interest.

14 8.7 If the intention not to purchase the Transfer  
15 Interest has been indicated by a notice duly  
16 given hereunder or by failure to give such  
17 notice as provided in Section 8.3, the Company  
18 desiring to Assign shall be free to Assign all  
19 but not less than all of its Transfer Interest  
20 to the Third Party that made the bona fide  
21 written offer upon the terms and conditions set  
22 forth in said bona fide written offer. If such  
23 Assignment of the entire Transfer Interest to  
24 the Third Party is not completed within eighteen  
25 (18) months after the proposed date to Assign  
26 specified in the notice given pursuant to Section

1 8.3 hereof, the Company desiring to Assign its  
2 Transfer Interest must, unless it is then  
3 diligently pursuing its applications to appro-  
4 priate regulatory bodies (if any) for required  
5 authorizations to effect such Assignment, or is  
6 then diligently prosecuting or defending appeals  
7 from orders entered or authorizations issued in  
8 connection with such applications, give another  
9 complete new right of first refusal to the other  
10 Company pursuant to the provisions of this  
11 Section 8, before such Company shall be free to  
12 Assign a Transfer Interest to said Third Party.

13 8.8 Any Third Party who purchases the Transfer  
14 Interest shall receive title to and shall own  
15 the Transfer Interest as a tenant in common, sub-  
16 ject to the same rights and obligations as are  
17 applied to the Transfer Interest in the hands of  
18 the Assigning Company.

19 8.9 Except as is otherwise provided in Section 8.10  
20 and Section 8.11 hereof, no Assignment of a  
21 Transfer Interest shall relieve the Assigning  
22 Company from continuing full liability and  
23 financial responsibility for performance of all  
24 obligations imposed by this Agreement, the  
25 Amended San Onofre Operating Agreement and the  
26 San Onofre Interconnection Agreement.

1 8.10 To the extent that Edison delegates to San  
2 Diego the functions of operating Unit 1, pursuant  
3 to Section 8.14 hereof, Edison shall be relieved  
4 of such duties.

5 8.11 An Assigning Company shall be relieved of its  
6 duties and obligations under this Agreement, the  
7 Amended San Onofre Operating Agreement and the  
8 San Onofre Interconnection Agreement if and when:

9 8.11.1 Its Assignee agrees in writing with the  
10 remaining Company to assume such obligations  
11 and duties; and

12 8.11.2 The remaining Company agrees in writing to  
13 the Assignor's release from such obligations.

14 8.12 Any Third Party who may succeed to the Transfer  
15 Interest pursuant to this Section 8 shall  
16 specifically agree in writing with the remaining  
17 Company at the time of such Assignment that it  
18 will not Assign all or any portion of the  
19 Transfer Interest so acquired without complying  
20 with the terms and conditions of this Section 8.

21 8.13 Any purported Assignment of a Transfer Interest  
22 (other than one provided for in Section 7 hereof)  
23 failing to comply with the requirements of this  
24 Section 8 shall be void.

25 8.14 In the event Edison desires to Assign all or  
26 substantially all of its interest in the San

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Onofre Nuclear Generating Station, other than pursuant to Section 7 or Section 8.15 hereof, San Diego shall have the option to assume all duties of operating Unit 1 and the Companies shall complete all necessary contractual arrangements and modifications to make San Diego operating agent of Unit 1, as of the time such assignment becomes effective.

8.15 Edison and San Diego each shall have the right to Assign its respective rights, titles and interests in the San Onofre Nuclear Generating Station and the Project Easements without the need for prior written consent of the other Company, and without complying with Sections 8.1 through 8.7, inclusive, and Section 8.14 hereof at any time to the following:

8.15.1 Any corporation or other entity acquiring all or substantially all of the property of such Company; or

8.15.2 Any corporation or entity into which or with which such Company may be merged or consolidated.

9. WAIVER OF RIGHT TO PARTITION

For itself and its successors and assigns, Edison and San Diego, each, until expiration or termination of this Agreement, waives the right to seek partition of the Sa



1 10.1.4 All other persons, firms, partnerships or  
2 corporations claiming through or under any  
3 of the foregoing; and

4 10.1.5 Any successors or assigns of any of those  
5 mentioned in this Section 10.1;

6 and shall be obligations running with the Companies'  
7 rights, titles and interests in the San Onofre Nuclear  
8 Generating Station and the Project Easements. It is  
9 the specific intention of this provision that all of  
10 such covenants and obligations shall be binding upon  
11 any party which acquires any of the rights, titles  
12 or interests of either Edison or San Diego in the  
13 San Onofre Nuclear Generating Station or the Project  
14 Easements and that such party shall be obligated to  
15 use such rights, titles and interests for the purpose  
16 of discharging such covenants and obligations.

17 10.2 The rights, titles and interests of Edison and  
18 San Diego in the San Onofre Nuclear Generating Station  
19 and the Project Easements shall inure to the benefit  
20 of their successors and assigns.

21 10.3 Any mortgagee, trustee or secured party, or any  
22 receiver or trustee appointed pursuant to the pro-  
23 visions of any present or future mortgage, deed of  
24 trust, indenture or security agreement creating a  
25 lien upon or encumbering the rights, titles or  
26 interests of either Company in the San Onofre Nuclear

1 Generating Station or the Project Easements, and any  
2 successors thereof by action of law or otherwise, and  
3 any purchaser, transferee, or assignee of any thereof,  
4 shall not be obligated to pay any monies accruing on  
5 account of any of the obligations or duties of such  
6 Company under this Agreement or the Amended San Onofre  
7 Operating Agreement incurred prior to the taking of  
8 possession or the initiation of foreclosure or other  
9 remedial proceedings by such mortgagee, trustee or  
10 secured party.

11 10.4 Edison and San Diego shall use their best efforts  
12 to obtain from the trustee(s) of their respective  
13 trust indentures valid commitments obligating said  
14 trustees to honor all the covenants set forth in  
15 Section 10.1 herein in the event they enter into  
16 possession of the San Onofre Nuclear Generating  
17 Station. Such commitments may be in the form of  
18 releases, consents or any other form ultimately agreed  
19 upon with said trustee(s). To the extent that either  
20 Company has secured such a commitment prior to the  
21 effective date of this Agreement such Company shall  
22 not incur any duty or obligation under this  
23 Section 10.4.

24 11. RELATIONSHIP OF PARTIES

25 The duties, obligations and liabilities of Edison and  
26 San Diego hereunder are intended to be several and not



1 joint or collective, and nothing herein contained shall  
2 ever be construed to create an association, trust or  
3 partnership or impose a trust or partnership duty,  
4 obligation or liability on or with regard to Edison or  
5 San Diego. Edison and San Diego shall be individually  
6 responsible for their own obligations as herein provided.  
7 Neither Edison nor San Diego shall have the right or  
8 power to bind the other except as expressly provided in  
9 this Agreement, the Amended San Onofre Operating Agree-  
10 ment or the San Onofre Interconnection Agreement.

11 12. MISCELLANEOUS PROVISIONS

12 12.1 Edison and San Diego agree, upon request, to  
13 make, execute and deliver any and all documents  
14 reasonably required to implement the terms of  
15 this Ownership Agreement.

16 12.2 The captions and headings appearing in this  
17 Agreement are inserted merely to facilitate  
18 reference and shall have no bearing upon the  
19 interpretation of the provisions hereof.

20 12.3 This Agreement is made under and shall be  
21 governed by the laws of the State of California.

22 12.4 The recitals on page 1 of this Agreement are  
23 intended to serve as informational provisions  
24 only and are not to be construed as binding upon  
25 either Company in any way.

26 13. NO DEDICATION OF FACILITIES

1 Any undertaking by one Company to the other under any  
2 provision of this Agreement shall not constitute the  
3 dedication of the system or any portion thereof of any  
4 Company to the public or to the other Company, and it  
5 is understood and agreed that any such undertaking shall  
6 cease upon the termination of this Agreement.

7 14. TERM

8 This Agreement shall become effective when it has been  
9 duly executed by both Edison and San Diego, and shall  
10 continue in effect until termination of the easement  
11 recorded in the Official Records, Office of the County  
12 Recorder, San Diego County, in Series 5, Book 1964, at  
13 Page No. 85887, granted to the Companies by the United  
14 States of America for the San Onofre Nuclear Generating  
15 Station, or such earlier date as the Companies may agree  
16 to cease operation of Unit 1.

17 Upon termination of this Agreement, the Companies  
18 shall agree upon further operation of Unit 1 or upon  
19 its disposition. In the event the Companies agree to  
20 dispose of Unit 1, the proceeds resulting therefrom  
21 or the costs incurred thereby shall be shared eightv  
22 (80) percent by Edison and twenty (20) percent by  
23 San Diego.

24 15. NOTICES

25 All notices under this Agreement shall be in writing  
26 and shall be delivered in person or sent by registered

1 or certified mail to the applicable of the following  
2 addresses:

3 Southern California Edison Company  
4 c/o Secretary  
5 Post Office Box 351  
6 Los Angeles, California 90053

7 San Diego Gas & Electric Company  
8 c/o President  
9 Post Office Box 1831  
10 San Diego, California 92112

11 By notice sent to the other Company, either Edison or  
12 San Diego may designate different persons or different  
13 addresses for the giving of notices hereunder.

14 16. PRIOR AGREEMENTS

15 It is the intention of the Companies to supersede  
16 hereby the Edison-San Diego Agreement of March 8, 1963  
17 to the extent that it provides for matters covered  
18 herein. The Companies intend to remain bound and  
19 obligated by those provisions of that agreement which  
20 relate to construction costs, the AEC Assistance  
21 Contract, Edison's appointment as San Diego's agent,  
22 as well as all other matters not covered herein. In  
23 the event that the Edison-San Diego Agreement of  
24 March 8, 1963, is inconsistent with this Agreement,  
25 the provisions of this Agreement shall be controlling.  
26

1 IN WITNESS WHEREOF, the Companies have caused this  
2 Agreement to be executed in duplicate on their behalf.

3 Attest: SAN DIEGO GAS & ELECTRIC COMPANY

4 (SEAL)

5 Assistant /s/ D.R.Green By /s/ J. F. Sinnott  
6 Secretary President

7 Attest: SOUTHERN CALIFORNIA EDISON COMPANY

8 (SEAL)

9 /s/ C. D. Lester By /s/ William R. Gould  
10 Secretary Vice President

11 STATE OF CALIFORNIA }  
12 } ss.  
13 COUNTY OF San Diego }

14 The foregoing instrument was acknowledged before  
15 me this 5th day of October, 1967, by  
16 J. F. Sinnott, President of SAN DIEGO GAS &  
17 ELECTRIC COMPANY, a corporation organized and existing under  
18 and by virtue of the laws of the State of California, on  
19 behalf of said corporation.

20  
21 /s/ Florence La Monte  
Notary Public

22 My Commission Expires:

23  
24 March 13, 1970

25 Florence LaMonte  
26 Notary Public  
Principal Office,  
San Diego Co., Calif.

1 STATE OF CALIFORNIA  
2 COUNTY OF Los Angeles } ss.

3 The foregoing instrument was acknowledged before  
4 me this 4th day of October, 1967, by  
5 William R. Gould, Vice-President of SOUTHERN CALIFORNIA  
6 EDISON COMPANY, a corporation organized and existing under and  
7 by virtue of the laws of the State of California, on behalf  
8 of said corporation.

10 /s/ Dona Mary Wilcomb  
11 Notary Public

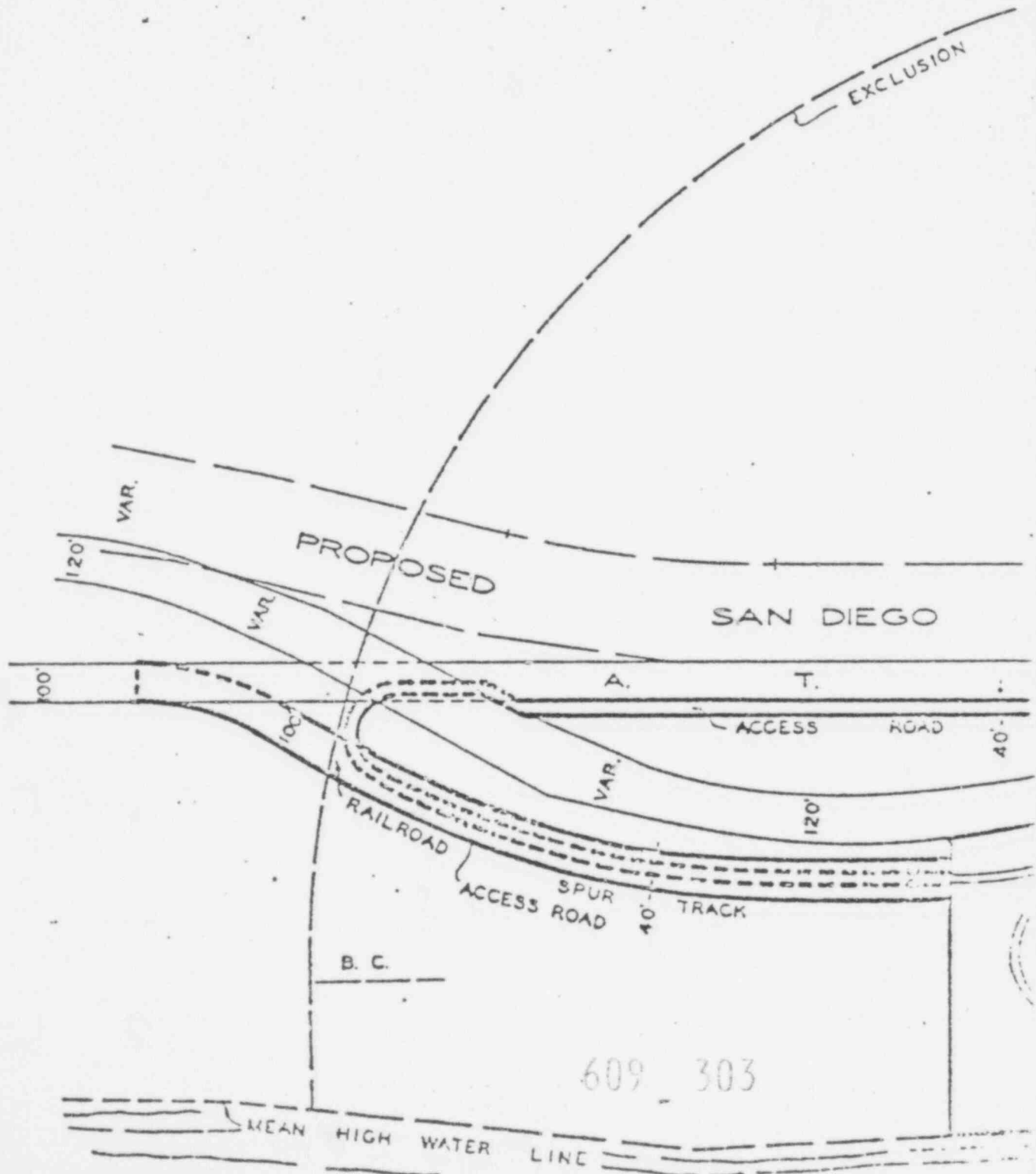
12 My Commission Expires:

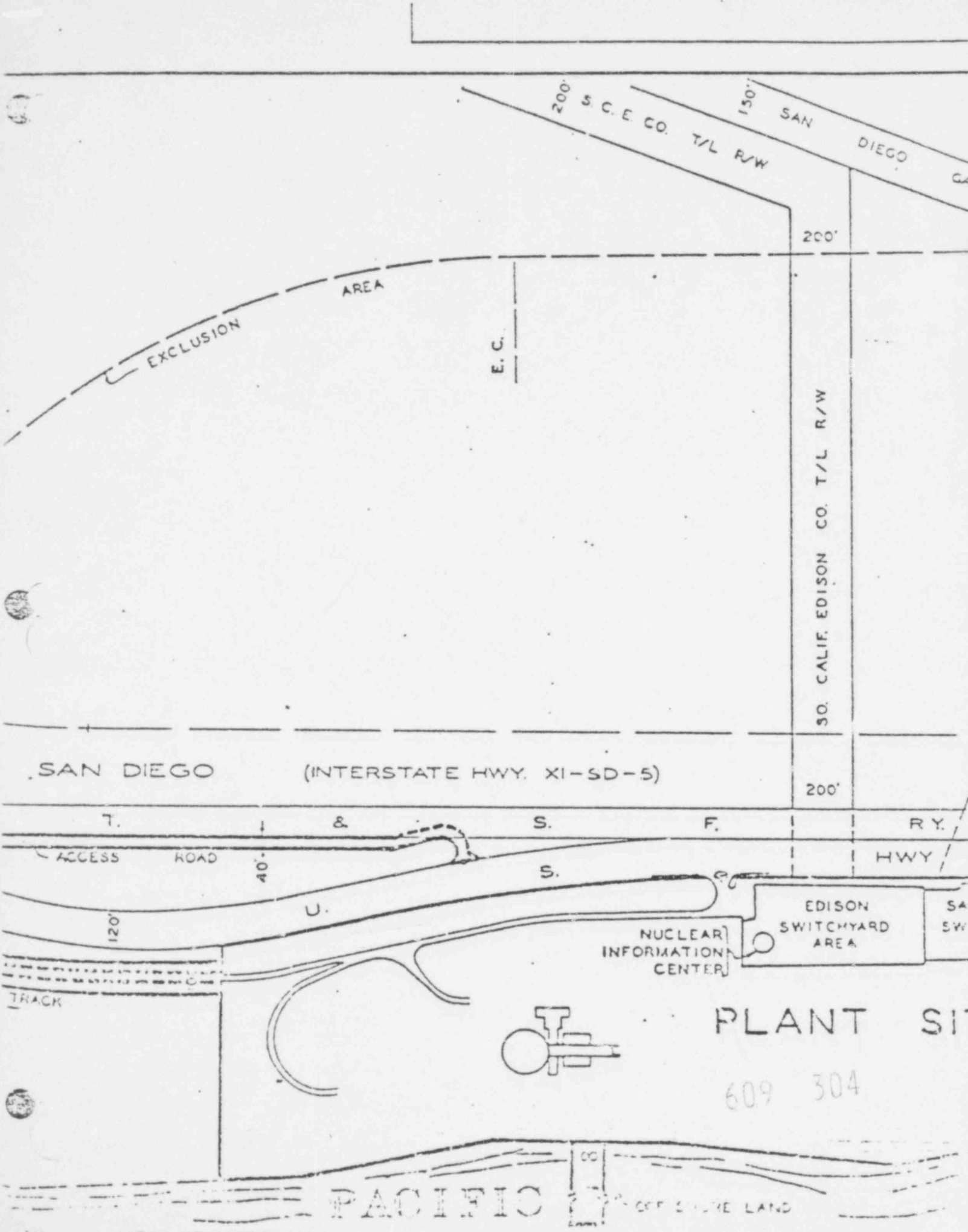
13 June 27, 1969

14 Dona Mary Wilcomb  
Notary Public - California  
Principal Office in  
Los Angeles County

NOTE

Upon completion of new Interstate 5, U.S. Highway 101 will revert to the Marine Corps. Future arrangements will be made to provide for continued use of the highway for access to the Plant Site.





200' S. C. E. CO. T/L R/W  
150' SAN DIEGO CA

EXCLUSION AREA

E. C.

200'

30. CALIF. EDISON CO. T/L R/W

SAN DIEGO (INTERSTATE HWY. XI-SD-5)

200'

T. & S. F. R.Y.

ACCESS ROAD

40'

U. S.

HWY

120'

NUCLEAR INFORMATION CENTER

EDISON SWITCHYARD AREA

SAN SWI

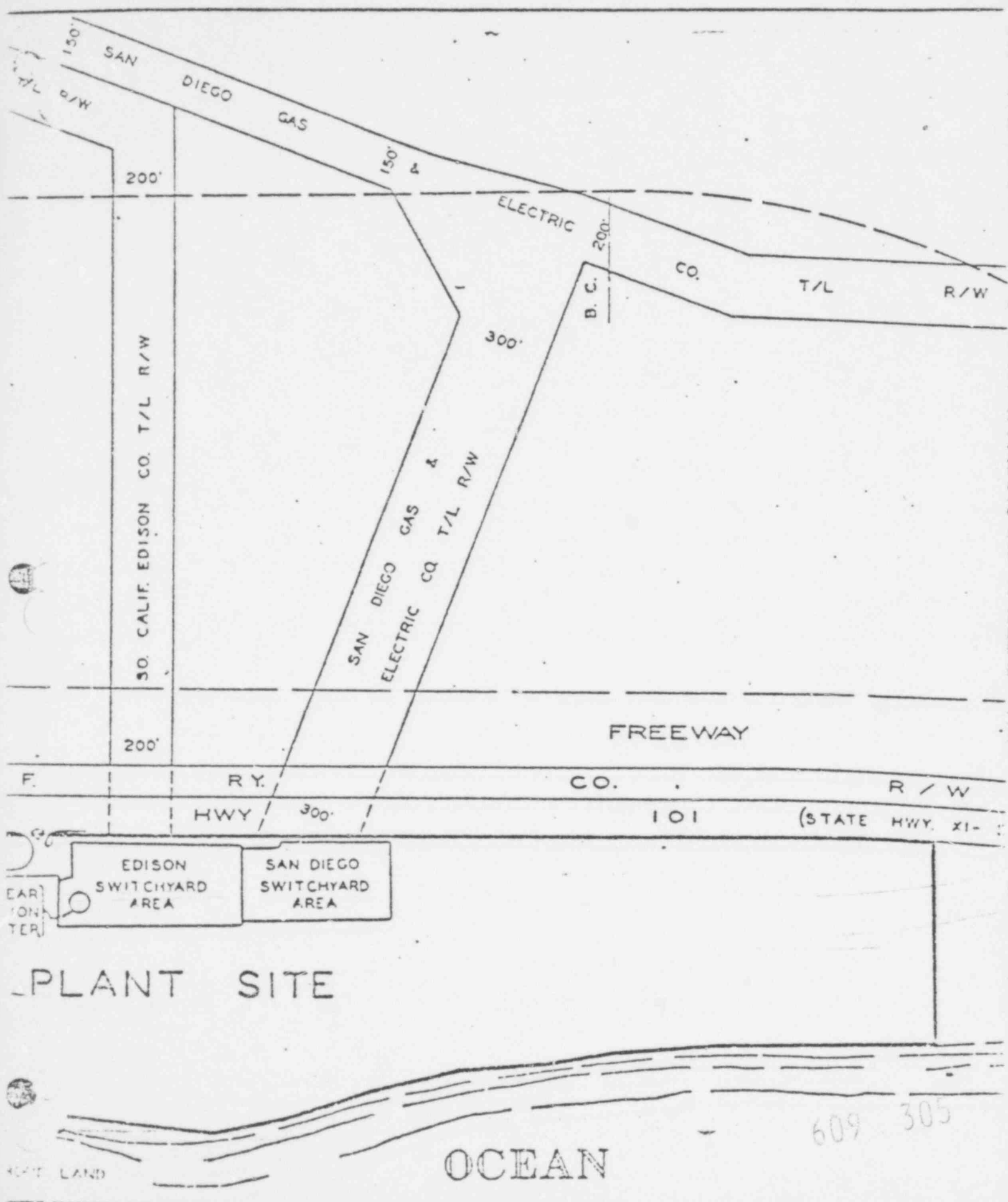
TRACK

PLANT SITE

609 304

PACIFIC

OFF SHORE LAND



EAR  
ON  
TER

COAST LAND

609 305



T/L

R/W

200'

EXCLUSION

NAY

R/W

AREA

R/W

VAR.

(STATE HWY. XI - S. D. - 2D)

R/W

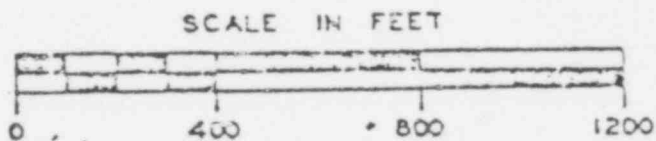
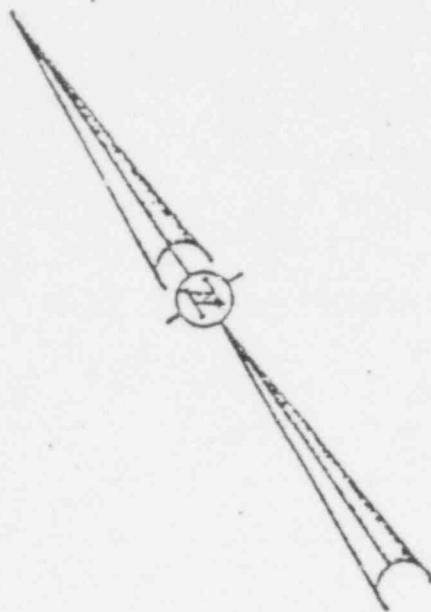
120' 100'

E.C.

MEAN HIGH WATER LINE

609 306

P.V.



# EXHIBIT "A"

SAN ONOFRE NUCLEAR GENERATING STATION  
 MAP SHOWING LOCATIONS OF THE PLANT SITE,  
 NUCLEAR INFORMATION CENTER, EDISON SWITCHYARD  
 AREA, SAN DIEGO SWITCHYARD AREA,  
 TRANSMISSION LINES, ACCESS ROAD, RAILROAD SPUR  
 TRACK, OFF SHORE LAND AND EXCLUSION AREA WITHIN  
 THE MARINE CORPS BASE, CAMP PENDLETON, CALIFORNIA,  
 SAN DIEGO COUNTY

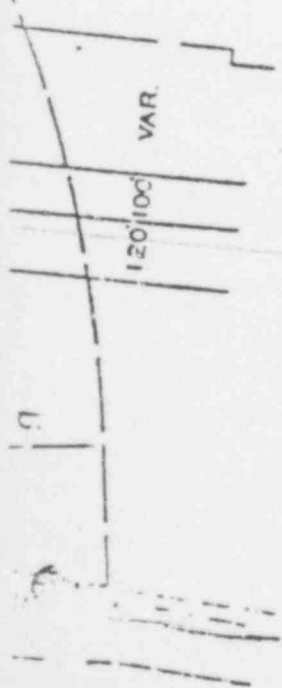


EXHIBIT A-1

DESCRIPTION OF ACCESS ROAD AREA

That certain real property in the County of San Diego, State of California, described as follows:

PARCEL 1:

A strip of land, Forty (40) feet wide, the center line of which is hereinafter described, lying within the Rancho Santa Margarita y Las Flores, as described in the Patent from the United States of America, dated March 28, 1879 and recorded in Book 7, page 18 et seq., of Patents in the office of the County Recorder of said County, and being also a portion of Section 24, Township 9 South, Range 7 West, as per Record of Survey Map No. 794 filed January 17, 1940 in the office of said County Recorder.

The center line of said strip of land is described as follows:

Beginning at a 6 inch by 6 inch concrete highway monument, set in the Southwesterly line of U. S. Highway 101, said monument being North  $56^{\circ} 12' 04''$  West 2123.77 feet, measured along said Southwesterly line, from a 6 inch by 6 inch concrete highway monument, said first above mentioned concrete highway monument bears South  $02^{\circ} 52' 15''$  East, 4207.25 feet from a 1-1/2 inch iron pipe, with brass cap, set for the Northeast corner of Section 24 in Township 9 South, Range 7 West, as shown on said Record of Survey Map, said first above mentioned concrete highway monument being also at the beginning of a tangent curve concave Southwesterly and having a radius of 4940 feet; thence Northwesterly, along said curve, through an angle of  $12^{\circ} 00' 00''$ , a distance of 1034.63 feet; thence continuing along said Southwesterly line and tangent to said last mentioned curve, North  $68^{\circ} 12' 04''$  West, 503.51 feet to the beginning of a tangent curve concave to the Northeast and having a radius of 2060 feet; thence Northwesterly, along said last mentioned curve, through an angle of  $04^{\circ} 54' 28''$  a distance of 176.47 feet to a point, a radial line of said last mentioned curve passing through said last mentioned point bears South  $26^{\circ} 42' 20''$  West; thence South  $33^{\circ} 00' 00''$  West, 118.21 feet to the TRUE POINT OF BEGINNING of this description; thence North  $57^{\circ} 00' 00''$  West, 473.57 feet to the beginning of a tangent curve concave Northeasterly and having a radius of 1912.67 feet; thence Northwesterly, along said last mentioned curve, through an angle of  $23^{\circ} 47' 14''$  a distance of 994.37

1 feet; thence tangent to said last mentioned curve, North 27°  
2 12' 46" West, 65.16 feet to the beginning of a tangent curve  
3 concave to the Southeast and having a radius of 129.64 feet;  
4 thence Northwesterly, Northerly and Easterly, along said last  
5 mentioned curve through an angle of 151° 00' 42" a distance  
6 of 341.68 feet; thence tangent to said last mentioned curve,  
7 South 56° 12' 04" East, 152.16 feet, to the beginning of a  
8 tangent curve concave to the Southwest and having a radius of  
9 100.00 feet; thence Southeasterly along said last mentioned  
10 curve, through an angle of 14° 38' 12", a distance of 25.55  
11 feet; thence tangent to said last mentioned curve, South 41°  
12 33' 57" East, 161.32 feet to the beginning of a tangent curve  
13 concave to the Northeast and having a radius of 100.00 feet;  
14 thence Southeasterly, along said last mentioned curve through  
15 an angle of 14° 38' 12", a distance of 25.55 feet; thence  
16 tangent to said last mentioned curve, South 56° 12' 04" East,  
17 1651.27 feet to the beginning of a tangent curve concave to  
18 the Northeast and having a radius of 100.00 feet; thence  
19 Southeasterly along said last mentioned curve through an  
20 angle of 09° 48' 07" a distance of 17.11 feet; thence tangent  
21 to said last mentioned curve, South 66° 00' 11" East, 153.29  
22 feet to the beginning of a tangent curve concave Southwesterly  
23 and having a radius of 60.00 feet; thence Southeasterly and  
24 Southerly along said last mentioned curve, through an angle  
25 of 90° 00' 00", a distance of 94.25 feet to a point hereinafter  
26 referred to as Point "A"; thence tangent to said last  
mentioned curve, South 23° 59' 49" West, 33 feet to a point  
in the Northeasterly line of U. S. Highway 101, said last  
mentioned point being in a curve in said Northeasterly line,  
said curve being concave Southwesterly and having a radius  
of 5000 feet, a radial line to said last mentioned curve  
passing through said last mentioned point bears North 23°  
59' 49" East, said last mentioned point being Easterly 194.13  
feet measured along said Northeasterly line from a 6 inch by  
6 inch concrete highway monument, said highway monument bears  
South 10° 20' 14" West 3668.46 feet from a 1-1/2 inch iron  
pipe with brass cap, set for the Northeast corner of said  
Section 24.

The side lines of said strip of land, hereinabove  
described and designated as Parcel 1, shall be prolonged or  
shortened so as to terminate in the Northeasterly line of  
said U. S. Highway 101.

PARCEL 2:

That portion of the Rancho Santa Margarita y Las Flores,  
as described in the Patent from the United States of America,  
dated March 26, 1879 and recorded in Book 7, page 18 et seq.,  
of Patents in the Office of the County Recorder of said  
County and being also a portion of Section 24 in Township 9

POOR ORIGINAL

609.309

1 South, Range 7 West, as shown on the Record of Survey Map  
2 No. 794, filed January 17, 1940 in the office of said County  
Recorder, described as follows:

3 Beginning at Point "A" hereinabove referred to in the  
4 center line description of the strip of land hereinabove  
5 described and designated as Parcel 1; thence South  $66^{\circ} 00'$   
6  $11''$  East 20 feet to the beginning of a non-tangent curve  
7 concave to the East and having a radius of 40.00 feet; thence  
8 Southerly along said curve through an angle of  $55^{\circ} 32' 58''$   
9 a distance of 38.78 feet to a point in the Northeasterly line  
10 of U. S. Highway 101, said last mentioned point being in a  
11 curve concave to the South and having a radius of 5030 feet,  
12 a radial line of said last mentioned curve passing through  
13 said last mentioned point bears North  $24^{\circ} 25' 12''$  East;  
14 thence Westerly along said last mentioned curve through an  
15 angle of  $00^{\circ} 50' 46''$  a distance of 74.72 feet to a point,  
16 a radial line of said last mentioned curve passing through  
17 said last mentioned point bears North  $23^{\circ} 34' 26''$  East, said  
18 last mentioned point being also at the beginning of a non-  
19 tangent curve concave to the West and having a radius of  
20 40.00 feet; thence Northerly along said last mentioned curve  
21 through an angle of  $55^{\circ} 32' 58''$  a distance of 38.78 feet to  
22 a point, a radial line to said last mentioned curve passing  
23 through said last mentioned point bears South  $66^{\circ} 00' 11''$   
24 East; thence South  $66^{\circ} 00' 11''$  East 20 feet to the point of  
25 beginning.

26 EXCEPTING from the land hereinabove described and  
designated as Parcel 2 that portion thereof lying within  
the strip of land hereinabove described and designated as  
Parcel 1.

POOR ORIGINAL

EXHIBIT A-2

DESCRIPTION OF EDISON SWITCHYARD AREA

That portion of the Rancho Santa Margarita y Las Flores, as described in the Patent from the United States of America, dated March 23, 1879 and recorded in Book 7, page 18 et seq., of Patents in the office of the County Recorder of said County, being also portions of Section 24 in Township 9 South, Range 7 West and Section 30 in Township 9 South, Range 6 West, as shown on Record of Survey Maps No. 794 filed January 17, 1940 in the office of said County Recorder, described as follows:

Beginning at a 6 inch by 6 inch concrete highway monument, set in the Southwesterly line of U.S. Highway 101, said monument bears South  $02^{\circ} 52' 15''$  East 4207.25 feet from a 1-1/2 inch iron pipe, with brass cap, set for the Northeast corner of Section 24 in Township 9 South, Range 7 West, as shown on said Record of Survey Map; thence South  $56^{\circ} 12' 04''$  East along said Southwesterly line of U.S. Highway 101, a distance of 50 feet; thence South  $33^{\circ} 00' 00''$  West, 12 feet to the TRUE POINT OF BEGINNING, of this description: thence South  $56^{\circ} 12' 04''$  East parallel with said Southwesterly line of U.S. Highway 101, a distance of 556 feet; thence South  $33^{\circ} 00' 00''$  West 269 feet to a point in a line which passes through a point that bears South  $33^{\circ} 00' 00''$  West 286 feet from the hereinbefore referred to 6 x 6 concrete monument in the Southwesterly line of said U.S. Highway 101; thence Northwest along said last mentioned line 594 feet; thence North  $33^{\circ} 00' 00''$  East, 154 feet; thence South  $56^{\circ} 12' 04''$  East, 38 feet; thence North  $33^{\circ} 00' 00''$  East 120 feet to the TRUE POINT OF BEGINNING of this description.

POOR ORIGINAL



EXHIBIT A-3

DESCRIPTION OF OFF SHORE LAND

A STRIP OF TIDE AND SUBMERGED LAND, ONE-HUNDRED (100) FEET WIDE, IN THE GULF OF SANTA CATALINA, SAN DIEGO COUNTY, THE CENTER LINE OF WHICH IS DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT IN THAT CERTAIN COURSE IN THE SOUTHWESTERLY BOUNDARY OF THE 83.63-ACRE PARCEL OF LAND SHOWN ON THE LICENSED SURVEYOR'S MAP FILED ON JUNE 13, 1963, AS MAP NO. 6242 OF RECORDS OF SURVEY IN THE OFFICE OF COUNTY RECORDER OF SAID COUNTY, SAID CERTAIN COURSE IS SHOWN ON SAID MAP AS HAVING A BEARING OF "S 52° 00' 51" E" AND A LENGTH OF "299.95 FEET", SAID POINT BEING SOUTH 52° 00' 51" EAST 18.71 FEET FROM THE NORTHEASTERLY TERMINUS OF SAID CERTAIN COURSE; THENCE SOUTH 33° 00' 00" WEST, 3,310.11 FEET, CONTAINING 7.599 ACRES MORE OR LESS.

THE SIDE LINES OF SAID STRIP OF LAND SHALL BE SHORTENED AT THE NORTHEASTERLY TERMINUS THEREOF SO AS TO TERMINATE IN THE SOUTHWESTERLY BOUNDARY LINE OF SAID 83.63-ACRE PARCEL OF LAND, SHOWN ON SAID LICENSED SURVEYOR'S MAP.

POOR ORIGINAL

EXHIBIT A-4

DESCRIPTION OF PLANT SITE

That certain real property in the County of San Diego, State of California, described as follows:

That portion of the Rancho Santa Margarita y Las Flores, as described in the Patent from the United States of America, dated March 28, 1879 and recorded in Book 7, page 18 et seq., of Patents in the office of the County Recorder of said County, being also portions of Section 24 in Township 9 South, Range 7 West and Section 30 in Township 9 South, Range 6 West, as shown on Record of Survey Map No. 794 filed January 17, 1940 in the office of said County Recorder, described as follows:

Beginning at a 6 inch by 6 inch concrete highway monument, set in the Southwesterly line of U. S. Highway 101, said monument being North  $56^{\circ} 12' 04''$  West 2123.77 feet, measured along said Southwesterly line, from a 6 inch by 6 inch concrete highway monument, said first above mentioned concrete highway monument bears South  $02^{\circ} 52' 15''$  East 4207.25 feet from a 1-1/2 inch iron pipe, with brass cap, set for the Northeast corner of Section 24 in Township 9 South, Range 7 West, as shown on said Record of Survey Map, said first above mentioned concrete highway monument being also at the beginning of a tangent curve, concave Southwesterly and having a radius of 4940 feet; thence Northwesterly along said curve, through an angle of  $12^{\circ} 00'$ , a distance of 1034.63 feet; thence continuing along said Southwesterly line and tangent to said last mentioned curve, North  $68^{\circ} 12' 04''$  West, 503.81 feet to the beginning of a tangent curve, concave to the Northeast and having a radius of 2000 feet; thence Northwesterly, along said last mentioned curve, through an angle of  $04^{\circ} 54' 28''$  a distance of 176.47 feet to a point, a radial line of said last mentioned curve passing through said last mentioned point bears South  $26^{\circ} 42' 24''$  West; thence South  $33^{\circ} 00' 00''$  West, 785.32 feet to the Mean High Tide Line of the Pacific Ocean; thence Southeasterly, along said Mean High Tide Line of the Pacific Ocean to a line that is parallel with and 4500 feet Southeasterly, measured at right angles, from the course hereinabove described as having a bearing of South  $33^{\circ} 00' 00''$  West and a length of 785.32 feet; thence North  $33^{\circ} 00' 00''$  East, along said parallel line, 663.39 feet to a point in said Southwesterly line of U. S. Highway 101, said last mentioned point being in a curve in said Southwesterly line, said curve being concave Southwesterly and having a radius of 11440 feet and being also tangent to the course hereinabove described as having a

POOR ORIGINAL

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1 bearing of North 56° 12' 04" West and a length of 2123.77 feet,  
2 a radial line to said curve passing through said last mentioned  
3 point bears North 37° 12' 19" East; thence Northwesterly, along  
4 said curve, through an angle of 03° 24' 23", a distance of  
5 680.14 feet to the second above mentioned 6 inch by 6 inch  
6 concrete highway monument; thence North 56° 12' 04" West,  
7 2123.77 feet to the point of beginning.

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POOR ORIGINAL

EXHIBIT A-5

DESCRIPTION OF SAN DIEGO SWITCHYARD AREA

That portion of the Rancho Santa Margarita y Las Flores, as described in the Patent from the United States of America, dated March 28, 1879 and recorded in Book 7, page 18 et seq., of Patents in the office of the County Recorder of said County, being also portions of Section 24 in Township 9 South, Range 7 West and Section 30 in Township 9 South, Range 6 West, as shown on Record of Survey Map, No. 794 filed January 17, 1940 in the office of said County Recorder, described as follows:

Beginning at a 6 inch concrete highway monument, set in the Southwesterly line of U. S. Highway 101, said monument bears South  $02^{\circ} 52' 15''$  East 4207.25 feet from a 1-1/2 inch iron pipe, with brass cap, set for the Northeast corner of Section 24 in Township 9 South, Range 7 West, as shown on said Record of Survey Map; thence South  $56^{\circ} 12' 04''$  East along said Southwesterly line of U. S. Highway 101, a distance of 50 feet; thence South  $33^{\circ} 00' 00''$  West 12 feet; thence South  $56^{\circ} 12' 04''$  East, parallel with said Southwesterly line of U. S. Highway 101, a distance of 555 feet; thence South  $33^{\circ} 00' 00''$  West 18 feet to the TRUE POINT OF BEGINNING of this description; thence South  $56^{\circ} 12' 04''$  East parallel with said Southwesterly line of U. S. Highway 101, a distance of 105 feet to a point; thence Easterly in a direct line to a point that is North  $33^{\circ} 00' 00''$  East 15 feet and South  $56^{\circ} 12' 04''$  East 18 feet from the last mentioned point; thence South  $56^{\circ} 12' 04''$  East 347 feet; thence South  $33^{\circ} 00' 00''$  West, 240 feet; thence Northwesterly 470 feet to a point that bears South  $33^{\circ} 00' 00''$  West 242 feet from the TRUE POINT OF BEGINNING of this description; thence North  $33^{\circ} 00' 00''$  East 242 feet to the TRUE POINT OF BEGINNING of this description.

POOR ORIGINAL

EXHIBIT A-6

DESCRIPTION OF SPUR TRACK AREA

That certain real property in the County of San Diego, State of California, described as follows:

A strip of land, One Hundred (100) feet wide, lying Forty-seven and one-half (47.5) feet Northeastly and Fifty-two and one-half (52.5) feet Southwestly of the hereinafter described reference line, said strip of land lying within the Rancho Santa Margarita y Las Flores, as described in the Patent from the United States of America, dated March 28, 1879 and recorded in Book 7, page 18 et seq., of Patents in the office of the County Recorder of said County, and being also a portion of Section 24 in Township 9 South, Range 7 West, as shown on the Record of Survey Map No. 794, filed January 17, 1940 in the office of said County Recorder.

The reference line referred to above is described as follows:

Beginning at a 6 inch by 6 inch concrete highway monument, set in the Southwestly line of U. S. Highway 101, said monument being North  $56^{\circ} 12' 04''$  West 2123.77 feet, measured along said Southwestly line, from a 6 inch by 6 inch concrete highway monument, said first above mentioned concrete highway monument bears South  $02^{\circ} 52' 15''$  East, 4207.25 feet from a 1-1/2 inch iron pipe, with brass cap, set for the Northeast corner of Section 24 in Township 9 South, Range 7 West, as shown on said Record of Survey Map, said first above mentioned concrete highway monument being also at the beginning of a tangent curve concave Southwestly and having a radius of 4940 feet; thence Northwestly, along said curve, through an angle of  $12^{\circ} 00' 00''$ , a distance of 1034.63 feet; thence continuing along said Southwestly line and tangent to said last mentioned curve, North  $68^{\circ} 12' 04''$  West, 503.81 feet to the beginning of a tangent curve concave to the Northeast and having a radius of 2060 feet; thence Northwestly, along said last mentioned curve, through an angle of  $04^{\circ} 54' 28''$  a distance of 176.47 feet to a point, a radial line of said last mentioned curve passing through said last mentioned point bears South  $26^{\circ} 42' 24''$  West; thence South  $33^{\circ} 00' 00''$  West, 115.71 feet to the TRUE POINT OF BEGINNING of this description; thence North  $57^{\circ} 00' 00''$  West 473.57 feet to the beginning of a tangent curve concave Northeastly and having a radius of 1910.17 feet; thence Northwestly along said last mentioned

POOR ORIGINAL

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1 curve, through an angle of  $29^{\circ} 47' 14''$  a distance of 993.07  
2 feet; thence tangent to said last mentioned curve North  $27^{\circ}$   
3  $12' 46''$  West 456.60 feet to the beginning of a tangent curve  
4 concave Southwesterly and having a radius of 573.69 feet;  
5 thence Northwesterly along said last mentioned curve through  
6 an angle of  $20^{\circ} 00' 00''$  a distance of 200.26 feet to the  
7 beginning of a compound curve concave Southwesterly and  
8 having a radius of 736.76 feet; thence Northwesterly along  
9 said last mentioned curve through an angle of  $8^{\circ} 59' 18''$   
10 115.59 feet to a point in the center line of the 100 foot  
11 right of way of the Atchison, Topeka and Santa Fe Railway  
12 Company, said point being North  $56^{\circ} 12' 04''$  West 700 feet,  
13 measured along said last mentioned center line from its  
14 intersection with the center line of U.S. Highway 101 (140  
15 feet wide).  
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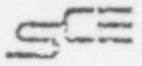
POOR ORIGINAL

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EXHIBIT H

SAN ONOFRE UNITS 2 AND 3  
LETTER AGREEMENT

*Southern California Edison Company*



P. O. BOX 351

LOS ANGELES, CALIFORNIA 90053

TELEPHONE  
213-624-7111

WILLIAM R. GOULD  
SENIOR VICE PRESIDENT

January 22, 1970

San Diego Gas & Electric Company  
P. O. Box 1831  
San Diego, California 92112

Gentlemen:

This letter sets forth the agreement of San Diego Gas & Electric Company (San Diego) and Southern California Edison Company (Edison) pursuant to the San Onofre Ownership Agreement, dated October 5, 1967, to proceed with the construction of two additional generating units (Units 2 and 3) at the San Onofre Nuclear Generating Station. The Companies agree, as provided in this letter, to share in the ownership, construction, operation, maintenance and use of Units 2 and 3 and to proceed with the award of major contracts for such units. The Companies agree that, with respect to Units 2 and 3, this letter shall substitute for the procedures described in Section 3 of the San Onofre Ownership Agreement. The commitments in this letter shall be superseded by definitive agreements described in Section 4 hereof.

The Companies agree as follows:

1. UNITS 2 AND 3

1.1 Units 2 and 3 shall be substantially identical generating units utilizing a pressurized water reactor nuclear steam supply system, together with initial core fuel assemblies and the necessary appurtenances. The nuclear steam supply system and the initial core fuel assemblies will be furnished by Combustion Engineering, Inc. Each unit shall be designed to produce approximately 1,140 megawatts net electrical output.

2. SCHEDULES

2.1 The Companies intend to make an award to Combustion Engineering, Inc. for the

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nuclear steam supply systems and initial core fuel assemblies for Units 2 and 3 on or before January 23, 1970. The award will be made in the names of both Companies.

2.2 In accordance with Section 3.4 of the San Onofre Ownership Agreement, the Companies confirm that the scheduled dates for initial full power operation of Units 2 and 3 will be June 1, 1975, and June 1, 1976, respectively. In order to permit a shake-down period and adequate time to establish said units as reliable generating resources, the commercial operating date for each unit will be scheduled for one year after the scheduled date of initial full power operation of such unit.

3. PARTICIPATION

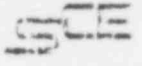
3.1 In light of the exercise by San Diego of its participation option pursuant to the San Onofre Ownership Agreement, the Companies shall acquire and own Units 2 and 3, as tenants in common, as follows:

3.1.1 San Diego shall own an undivided twenty per cent (20%) interest therein; and

3.1.2 Edison shall own an undivided eighty per cent (80%) interest therein.

3.2 The capacity entitlement of each Company in each of Units 2 and 3 shall be the product of its percentage participation share and the net effective generating capacity of such unit.

3.3 Each Company shall be responsible for transmitting its capacity entitlement and energy associated therewith from San Onofre Nuclear Generating Station to its system.



4. DEFINITIVE AGREEMENTS

4.1 The Companies agree to negotiate in good faith and to proceed with diligence to obtain all necessary project agreements, including those pertaining to the following:

4.1.1 Agreements with the suppliers of the nuclear steam supply systems and turbine-generators, to be executed by both Companies with such suppliers.

4.1.2 Construction.

4.1.3 Fuel supply, to be executed by both Companies with the supplier.

4.1.4 Agreement with the Engineer-Constructor, to be executed by both Companies with the Engineer-Constructor.

4.1.5 Ownership.

4.1.6 Operation and maintenance.

4.1.7 Fuel reprocessing, to be executed by both Companies with the Reprocessor.

5. REGULATORY APPROVALS

5.1 The Companies agree to proceed with diligence to obtain all necessary regulatory approvals for the construction and operation of Units 2 and 3.

6. PROJECT COSTS

6.1 Costs incurred by the Companies which are properly chargeable to the construction of Units 2 and 3 shall be set forth in budgets to be approved in advance by the Companies.



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- 6.2 San Diego shall be entitled to proportionate reimbursement by Edison for costs incurred by San Diego, which costs contribute to the advancement and are properly chargeable to the construction of Units 2 and 3.
- 6.3 Edison shall be entitled to proportionate reimbursement by San Diego for costs incurred by Edison, which costs contribute to the advancement and are properly chargeable to the construction of Units 2 and 3.
- 6.4 The details of the payment of those costs incurred by Edison prior to the effective date of the Construction Agreement shall be set forth in a supplement to this letter. It is anticipated that such payments shall be made on a monthly basis.

7. LIABILITY AND INSURANCE

- 7.1 The Companies agree to negotiate and complete, within sixty (60) days after the date of execution of this letter, a supplement to this letter containing (a) liability provisions governing the construction of Units 2 and 3, and (b) any necessary insurance arrangements for said units.

8. INTERCONNECTION

- 8.1 For system security reasons, the Companies intend to arrange in connection with the construction of Units 2 and 3 the interconnection facilities located at the San Onofre Nuclear Generating Station in such a manner that a certain amount of capacity compatible to both systems from said station will be available to both Companies during times when the two systems are not operating in parallel. The arrangement and operation of such interconnection and the amount of capacity to be isolated on the respective systems will be subjects of joint studies to be performed by the Companies assuming various contingencies of planned and forced outages.

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9. PROJECT MANAGER AND OPERATING AGENT

9.1 The Companies hereby appoint Edison as Project Manager and Operating Agent. Edison shall perform, or cause to be performed, as agent for San Diego and as principal on its own behalf the project work for Units 2 and 3.

10. LIAISON

10.1 The Companies shall promptly inform each other concerning significant matters involving the project work.

10.2 Each Company shall promptly notify the other in advance of important meetings with equipment vendors, regulatory agencies and others so that representatives of both Companies may participate in such meetings.

10.3 The Companies shall meet periodically at the management level to review and discuss policy matters affecting the project work, and at the engineering staff level to review and discuss the project work.

10.4 San Diego shall designate a project representative to provide direct contact between Edison and San Diego in matters pertaining to the project work.

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If the foregoing properly expresses our mutual agreement, please confirm by signing in the space provided below and returning one copy to me.

Sincerely,

SOUTHERN CALIFORNIA EDISON COMPANY

By William R. Bond  
Senior Vice President

Accepted and agreed to

this 23 day of

January, 1970.

SAN DIEGO GAS & ELECTRIC COMPANY

By [Signature]

if any  
C  
1/22/70

EXHIBIT I

AMENDED SAN ONOFRE OPERATING AGREEMENT

AND

AMENDMENT NO. 1 TO  
AMENDED SAN ONOFRE OPERATING AGREEMENT

AMENDED SAN ONOFRE OPERATING AGREEMENT

BETWEEN

SAN DIEGO GAS & ELECTRIC COMPANY

AND

SOUTHERN CALIFORNIA EDISON COMPANY

609 326

1  
2 AMENDED SAN ONOFRE OPERATING AGREEMENT

3  
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3 AMENDED SAN ONOFRE OPERATING AGREEMENT

4  
5 THIS AGREEMENT, executed on the 30<sup>th</sup> day of  
6 July, 1970, between SAN DIEGO GAS &  
7 ELECTRIC COMPANY, hereinafter called "San Diego", and SOUTHERN  
8 CALIFORNIA EDISON COMPANY, hereinafter called "Edison",  
9 corporations organized, created, and existing under and by  
10 virtue of the laws of the State of California, hereinafter  
11 referred to individually as "Company" and collectively as  
12 "Companies".

13 W I T N E S S E T H :

14 WHEREAS, San Diego and Edison have entered into an  
15 agreement entitled "Edison-San Diego Agreement" of March 8,  
16 1963, to provide for their joint participation in the procure-  
17 ment, construction, and operation of the San Onofre Nuclear  
18 Generating Station.

19 WHEREAS, Edison and Westinghouse Electric Corporation  
20 entered into a contract entitled "San Onofre Nuclear Generating  
21 Station Unit No. 1 Contract for Fuel Service", dated June 12,  
22 1963, to provide long-term fuel service for Unit 1.

23 WHEREAS, Edison assigned to San Diego an undivided  
24 20 per cent interest in said Contract for Fuel Service by a  
25 document entitled "Assignment of Interest in Contract for  
26 Fuel Service", dated June 21, 1963.

1           WHEREAS, Edison and San Diego have entered into an  
2 agreement and Modification No. 1 thereto with the United States  
3 of America, represented by the Atomic Energy Commission, dated  
4 March 31, 1964, hereinafter referred to as the "Assistance  
5 Contract".

6           WHEREAS, the Edison-San Diego Agreement provides  
7 that Edison and San Diego shall enter into an operating agree-  
8 ment which shall contain the terms and conditions under which  
9 the San Onofre Nuclear Generating Station shall be operated  
10 and maintained and the method of sharing the costs thereof  
11 and the output therefrom.

12           WHEREAS, pursuant to the Edison-San Diego Agreement,  
13 (i) Edison assigned a 20 per cent undivided interest to San  
14 Diego in the contract entitled "Agreement for Coast Nuclear  
15 Station, Unit No. 1", hereinafter called the "NPPC", entered  
16 into by Edison on January 11, 1963, with Bechtel Corporation  
17 and Westinghouse Electric Corporation, and (ii) San Diego  
18 irrevocably appointed Edison as its agent, and Edison agreed  
19 to undertake as San Diego's agent, as well as in Edison's own  
20 behalf, the performance of all specified Edison obligations  
21 under the NPPC, the handling of all transactions and relations  
22 with Bechtel and Westinghouse under the NPPC, the performance  
23 of all Edison's obligations therein specified and the handling  
24 of all transactions and relations with Westinghouse under the  
25 Fuel Service Contract, the performance of the terms and condi-  
26 tions of the Assistance Contract with the Atomic Energy

1 Commission, the making on behalf of Edison and San Diego of  
2 reports to the AEC and the California Public Utilities Com-  
3 mission, the issuance of publicity and conducting public  
4 relations except those involving San Diego's service territory,  
5 and liaison with the California Coordinator of Atomic Energy  
6 Development and Radiation Protection.

7 WHEREAS, the Companies desire that Unit 1 shall be  
8 so operated and maintained that its value and usefulness as  
9 a power generating resource will provide benefits to Edison  
10 and San Diego in proportion to their ownership thereof.

11 WHEREAS, the Companies desire to obtain and share  
12 maximum experience and training benefits from the operation  
13 and maintenance of Unit 1.

14 WHEREAS, Edison and San Diego entered into an agree-  
15 ment entitled "San Onofre Ownership Agreement", dated  
16 October 5, 1967, and recorded on October 6, 1967, in Series 8,  
17 Book 1967, Page 154649 of Official Records in the office of  
18 the County Recorder of the County of San Diego, to supplement  
19 the Edison-San Diego Agreement in regard to certain incidents  
20 of ownership of the San Onofre Nuclear Generating Station.

21 WHEREAS, Edison and San Diego entered into an  
22 agreement entitled "San Onofre Operating Agreement", dated  
23 June 1, 1966, which provides certain terms and conditions  
24 under which Edison shall operate and maintain Unit 1.

25 WHEREAS, Edison and San Diego desire to amend and  
26 restate the San Onofre Operating Agreement to provide for the

1 making of Capital Improvements, the sharing of expenses, the  
2 providing of insurance, and other matters in connection with  
3 the operation and maintenance of Unit 1.

4 NOW THEREFORE, in consideration of the terms and  
5 conditions herein set forth to be performed by each of the  
6 Companies, respectively, the parties hereto agree as follows:

7 1. DEFINITIONS

8 Whenever used herein, the following terms shall have  
9 the following meanings, exclusively:

10 1.1 Access Road Area: An area of land described in an  
11 easement granting rights for access and other pur-  
12 poses relating to the San Onofre Nuclear Generating  
13 Station by the United States to Edison and San Diego  
14 on May 12, 1964, recorded in Series 5, Book 1964,  
15 Page 85889 of Official Records in the office of the  
16 County Recorder of the County of San Diego. Such  
17 land area consisting of approximately 3.68 acres in  
18 the northwest corner of the Marine Corps Base,  
19 Camp Pendleton, California, is shown in Exhibit A  
20 attached hereto.

21 1.2 Additional Generating Unit: Any facility for the  
22 generation of electrical energy (including all  
23 auxiliary and associated equipment) constructed or  
24 installed at the San Onofre Nuclear Generating Sta-  
25 tion other than Unit 1 or auxiliary generating  
26 facilities necessary for the operation of Unit 1.

1 1.3 Board of Review: The board established pursuant to  
2 Section 3.1 hereof.

3 1.4 Capital Improvement: .The addition of any unit of  
4 property, land or land right to Unit 1 or the Station  
5 Site or the replacement, enlargement or improvement  
6 of any unit of property, land or land right con-  
7 stituting a part of Unit 1 or the Station Site,  
8 which, in accordance with Prescribed Accounting  
9 Practice, would be capitalized.

10 1.5 Edison Switchyard: The 220-kv switchrack and related  
11 facilities located within the Edison Switchyard Area  
12 and any facilities subsequently installed or con-  
13 structed therein by Edison, but not including the  
14 conductors and dead-end assemblies for the 220-kv  
15 Unit 1 main transformer leads or any environmental  
16 radiation monitoring equipment installed therein.  
17 For purposes of this agreement, the following items  
18 located in the Unit 1 control-administration build-  
19 ing are also considered to be part of the Edison  
20 Switchyard:

21 1.5.1 Controls, indicating lights, and instruments  
22 associated with Edison's 220-kv switchrack  
23 facilities.

24 1.5.2 Tap changing controls and associated indi-  
25 cating meters for San Diego's 220/138-kv  
26 autotransformers.

1 1.5.3 Meters and devices for interconnection meter-  
2 ing and Edison's associated telemetering  
3 equipment.

4 1.6 Edison Switchyard Area: An area of land used as the  
5 site of Edison Switchyard and, at present, as the  
6 site of the Nuclear Information Center. Such land  
7 area consisting of approximately 3.66 acres within  
8 the Plant Site is shown in Exhibit A.

9 1.7 Edison Transmission Lines: The 220-kv transmission  
10 lines connecting the Edison Switchyard with the  
11 remainder of the Edison system.

12 1.8 FPC Accounts: The Federal Power Commission's  
13 "Uniform System of Accounts Prescribed for Public  
14 Utilities and Licensees (Class A and Class B), in  
15 Effect on March 1, 1965, Subject to the Provisions  
16 of the Federal Power Act", as amended on or before  
17 the execution date of this agreement.

18 1.9 Fuel Service Contract: A contract entitled  
19 "San Onofre Nuclear Generating Station Unit 1  
20 Contract for Fuel Service" entered into as of  
21 June 12, 1963, by Edison and Westinghouse Electric  
22 Corporation, in which contract Edison assigned to  
23 San Diego an undivided 20 per cent interest on  
24 June 21, 1963; as amended by Amendment No. 1 thereto  
25 on March 27, 1964, and Amendment No. 2 thereto on  
26 March 27, 1967, and as it may thereafter be amended.

1           1.10 Nuclear Information Center: The structures and  
2           associated facilities designated in Exhibit A as  
3           the Nuclear Information Center, located within the  
4           presently unfenced portion of the Edison Switchyard  
5           Area and any subsequent improvements of or additions  
6           to said structures and facilities.

7           1.11 Off-Shore Land: A strip of tide and submerged land  
8           used for circulating water conduits for the San  
9           Onofre Nuclear Generating Station described in an  
10          easement-lease for such purpose from the State of  
11          California to Edison and San Diego beginning on  
12          September 24, 1964, and recorded in Series 5,  
13          Book 1964, Page 235236 of Official Records in the  
14          office of the County Recorder of the County of  
15          San Diego, as such easement-lease was amended on  
16          December 5, 1968, and may hereafter be amended.  
17          Such land area consisting of approximately 7.599  
18          acres is shown in Exhibit A.

19          1.12 Plant Site: An area of land used for the major  
20          portion of the San Onofre Nuclear Generating Station  
21          described in an easement granted for such purpose by  
22          the United States to Edison and San Diego on May 12,  
23          1964, and recorded in Series 5, Book 1964,  
24          Page 85887 of Official Records in the office of the  
25          County Recorder of the County of San Diego. Such  
26          land area consisting of approximately 83.63 acres



1 in the northwest corner of the Marine Corps Base,  
2 Camp Pendleton, California, is shown in Exhibit A.

3 1.13 Prescribed Accounting Practice: Generally accepted  
4 accounting principles, in accordance with FPC  
5 Accounts, applicable to electric utility operations.

6 1.14 San Diego Switchyard: The 220-kv and 138-kv switch-  
7 racks, 220/138-kv autotransformers, and related  
8 facilities located within the San Diego Switchyard  
9 Area and any facilities subsequently installed or  
10 constructed therein by San Diego, but not including  
11 the conductors and dead-end assemblies for the  
12 Unit 1 Auxiliary "C" Transformer leads.

13 1.15 San Diego Switchyard Area: An area of land used as  
14 the site of the San Diego Switchyard. Such land  
15 area consisting of approximately 2.72 acres within  
16 the Plant Site is shown in Exhibit A.

17 1.16 San Diego Transmission Lines: The 138-kv trans-  
18 mission lines connecting the San Diego Switchyard  
19 with the remainder of the San Diego system.

20 1.17 San Onofre Agreements: The Edison-San Diego Agree-  
21 ment referred to on page 1 hereof, the San Onofre  
22 Ownership Agreement, this Amended San Onofre  
23 Operating Agreement, the Fuel Service Contract,  
24 the Assistance Contract, the Special Nuclear  
25 Material Lease Agreement No. 264 dated July 1, 1968,  
26 between the United States and the Companies, the



1 fuel reprocessing agreement to be entered into by  
2 the fuel reprocessor and the Companies covering the  
3 reprocessing of spent fuel, the three easements  
4 granting rights by the United States to Edison and  
5 San Diego for the Access Road, the Plant Site, and  
6 the Spur Track Area, and the easement-lease granting  
7 rights by the State of California to Edison and  
8 San Diego for the Off-Shore Land.

9 1.18 San Onofre Interconnection Agreement: The agreement  
10 the Companies propose to execute to provide, among  
11 other matters, for the operation and maintenance of  
12 the Edison and San Diego Switchyards and for the  
13 interconnection of their systems through such Switch-  
14 yards, as such agreement may thereafter be amended.

15 1.19 San Onofre Nuclear Generating Station: The entire  
16 nuclear generating facility located on a site of  
17 approximately 90 acres in the northwest corner of  
18 the Marine Corps Base, Camp Pendleton, California,  
19 consisting of the Plant Site (including the Edison  
20 Switchyard Area and San Diego Switchyard Area), the  
21 Access Road Area, the Spur Track Area, the Off-  
22 Shore Land, any Subsequent Acquisitions, Unit 1,  
23 the Nuclear Information Center, the Edison Switch-  
24 yard, the San Diego Switchyard, and any Additional  
25 Generating Units subsequently constructed or  
26 installed.

1 1.20 San Onofre Ownership Agreement: The agreement the  
2 Companies have executed as of October 5, 1967, which  
3 was recorded on October 6, 1967, in Series 8,  
4 Book 1967, Page 154649 of Official Records in the  
5 office of the County Recorder of the County of  
6 San Diego, supplementing the Edison-San Diego Agree-  
7 ment of March 8, 1963, in regard to incidents of  
8 ownership as tenants in common, waiver of partition,  
9 transfer of ownership, and other matters with  
10 respect to the San Onofre Nuclear Generating Station,  
11 as such agreement may thereafter be amended.

12 1.21 Spur Track Area: An area of land used for railroad  
13 spur track, pipelines, and communication lines for  
14 the San Onofre Nuclear Generating Station described  
15 in an easement granted for such purpose by the  
16 United States to Edison and San Diego on May 12,  
17 1964, and recorded in Series 5, Book 1964,  
18 Page 85888 of Official Records in the office of the  
19 County Recorder of the County of San Diego. Such  
20 land area consisting of approximately 5.14 acres  
21 in the northwest corner of the Marine Corps Base,  
22 Camp Pendleton, California, is shown in Exhibit A.

23 1.22 Station Site: The Access Road Area, the Spur Track  
24 Area, the Off-Shore Land, Subsequent Acquisitions,  
25 and that portion of the Plant Site not included with-  
26 in either the Edison or San Diego Switchyard Area.

1 1.23 Subsequent Acquisition: Any future acquisition by  
2 either Edison or San Diego of land or land rights  
3 necessary for the operation and maintenance of  
4 Unit 1.

5 1.24 Unit 1: The first nuclear generating unit, consist-  
6 ing of a nuclear steam supply system, a turbine-  
7 generator designed to generate approximately  
8 450 megawatts (gross) of electric power, and all  
9 related equipment and facilities which are necessary  
10 for the safe and efficient generation of electricity  
11 therefrom installed on the Plant Site, the Access  
12 Road Area, the Spur Track Area, and the Off-Shore  
13 Land, but excluding the Edison Switchyard, San Diego  
14 Switchyard, and Nuclear Information Center.

15 1.25 Unit 1 220-kv Output: The output in kilowatts of  
16 Unit 1 delivered to and measured at the Edison  
17 220-kv Switchyard.

18 1.26 Unit 1 Auxiliary "C" Transformer: The 138/4-kv,  
19 three-phase transformer connected to the San Diego  
20 Switchyard to supply a portion of the Unit 1  
21 auxiliary power requirement.

22 1.27 Unit 1 Auxiliary "C" Transformer Demand: The  
23 demand in kilowatts of the Unit 1 Auxiliary "C"  
24 Transformer delivered from and measured at the  
25 San Diego Switchyard.

26 1.28 Unit 1 Current Operating Capacity: The maximum

1 Unit 1 Net Output available to the Edison and  
2 San Diego Transmission Lines at any given time.

3 1.29 Unit 1 Effective Operating Capacity: The full load  
4 net electrical capability of Unit 1 as established  
5 from time to time pursuant to performance tests  
6 within the operating limits authorized by the  
7 Atomic Energy Commission, which is reported to  
8 regulatory agencies and others as the effective  
9 operating capacity of Unit 1.

10 1.30 Unit 1 Insurance: Insurance coverages (including  
11 the Government Indemnity Agreement referred to in  
12 Section 10.2.1 hereof) for Unit 1, the Station Site,  
13 and Edison personnel regularly assigned to Unit 1,  
14 to be provided by Edison or Edison and San Diego  
15 pursuant to Sections 10.1 and 10.2 hereof.

16 1.31 Unit 1 Minimum Output: The minimum Unit 1 Net  
17 Output at which Unit 1 can be satisfactorily  
18 operated.

19 1.32 Unit 1 Net Output: Unit 1 220-kv Output less the  
20 simultaneous Unit 1 Auxiliary "C" Transformer  
21 Demand.

22 1.33 Unit 1 Operating Impairment: Any unanticipated  
23 event or circumstance, including any action, order,  
24 or directive of any regulatory authority having  
25 competent jurisdiction, which at the time of such  
26 event or circumstance either reduces or has the

1 reasonably anticipated effect of reducing the genera-  
2 tion of electric energy by Unit 1, or the operating  
3 reliability of Unit 1.

4 1.34 Willful Action:

5 1.34.1 Action taken or failed to be taken by a  
6 Company at the direction of its directors,  
7 corporate officers or employees having  
8 management responsibility affecting its  
9 performance under any of the San Onofre  
10 Agreements, which action:

11 1.34.1.1 is knowingly or intentionally  
12 taken or failed to be taken with  
13 conscious indifference to the  
14 consequences thereof or with  
15 intent that injury or damage  
16 would result or probably would  
17 result therefrom;

18 1.34.1.2 has been determined by final  
19 arbitration award or final  
20 judgment or judicial decree to be  
21 a material default under any of  
22 the San Onofre Agreements and  
23 which action occurs or continues  
24 beyond the time specified in such  
25 arbitration award or judgment or  
26 judicial decree for curing such

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default, or if no  
time to cure is  
specified therein,  
occurs or continues  
thereafter beyond a  
reasonable time to  
cure such default;

1.34.1.3 is knowingly or  
intentionally taken  
or failed to be taken  
with the knowledge that  
such action taken or  
failed to be taken is  
a material default  
under any of the San  
Onofre Agreements.

1.34.2 Willful Action does not include  
any act or failure to act which  
is merely involuntary, acci-  
dental or negligent.

1.34.3 The phrase "employees having  
management responsibility"  
as used in this Section 1.34  
means the employees of a  
Company who are responsible  
for one or more of the

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1 executive functions of plan-  
2 ning, organizing, coordinating,  
3 directing, controlling, and  
4 supervising such Company's  
5 performance under any of the  
6 San Onofre Agreements, with  
7 responsibility for results.  
8 Included among such employees  
9 for Edison are the Generating  
10 Station Superintendent,  
11 referred to in Section 3.2.1  
12 hereof and, during his  
13 absence from the station, the  
14 Edison employee who has been  
15 designated to act and is act-  
16 ing for the Generating Sta-  
17 tion Superintendent, and  
18 such employee's non-field  
19 supervisors who are respon-  
20 sible for one or more of said  
21 executive functions.

22 2. PARTICIPATION IN THE OPERATION AND  
23 MAINTENANCE OF THE SAN ONOFRE  
24 NUCLEAR GENERATING STATION

25 2.1 Edison shall, for the term of this agreement, per-  
26 form all operation and maintenance of Unit 1 and the

1 Station Site upon the terms, covenants, and condi-  
2 tions set forth herein. The operation and mainte-  
3 nance of Additional Generating Units shall be  
4 provided for in subsequent agreements.

5 2.2 Edison shall perform the operation and maintenance  
6 of Unit 1 and the Station Site in accordance with  
7 standards comparable to those followed at Edison's  
8 other thermal generating plants and in accordance  
9 with generally accepted electric utility industry  
10 standards and practices, subject to any requirements  
11 imposed by the Atomic Energy Commission or any other  
12 regulatory agency having jurisdiction over such  
13 operation and maintenance.

14 2.3 San Diego and Edison through the Board of Review  
15 will jointly make policy determinations concerning  
16 the operation and maintenance and use of Unit 1 and  
17 the Station Site; provided, however, that all matters  
18 relating to Additional Generating Units shall be  
19 subject to Section 3 of the San Onofre Ownership  
20 Agreement. In addition, San Diego will be entitled  
21 to participate in and review the operation and  
22 maintenance of Unit 1 and the Station Site, as  
23 herein provided, through its designated representa-  
24 tives, in order that San Diego may realize value  
25 from Unit 1 both as a power generating resource and  
26 as a source of nuclear power plant operating



1 experience; provided, however, such participation  
2 and review by San Diego shall be conducted in a  
3 manner and at times that will not materially hamper  
4 or materially increase the costs of the operation  
5 and maintenance of Unit 1 and the Station Site.

6 2.4 Edison shall operate and maintain the Edison Switch-  
7 yard and San Diego shall operate and maintain the  
8 San Diego Switchyard in accordance with the San  
9 Onofre Interconnection Agreement. Neither Edison  
10 nor San Diego shall separate its system from Unit 1  
11 or from the system of the other Company at the San  
12 Onofre Nuclear Generating Station in such a manner  
13 as to interfere with the operation and maintenance  
14 of Unit 1 or restrict the use by the other Company  
15 of its entitlement in the capacity and energy of  
16 Unit 1 except as provided in the San Onofre Inter-  
17 connection Agreement.

18 3. BOARD OF REVIEW AND LIAISON

19 3.1 A Board of Review is hereby established to consist  
20 of one member, and an alternate authorized to act  
21 in the absence of such member, appointed by each  
22 Company within ten days after the date of execution  
23 of this agreement. The Board of Review shall hold  
24 meetings at such times and places as may be neces-  
25 sary to carry out its duties hereunder. Any action,  
26 agreement or determination made by the Board of

1 Review shall be reduced to writing and shall become  
2 effective when signed by the member from each Company  
3 or an authorized alternate. Meetings may be called  
4 by either member by giving written notice of the  
5 time, place, and agenda at least seven days in  
6 advance; except that the members may waive such  
7 notice. It shall be the duty of the Board of Review  
8 to review and approve the following with respect to  
9 Unit 1 and the Station Site:

- 10 3.1.1 The annual capital expenditures budget;
- 11 3.1.2 The annual manpower budget;
- 12 3.1.3 The annual operation and maintenance  
13 expense budget;
- 14 3.1.4 The annual fuel expense budget;
- 15 3.1.5 The establishment of the Unit 1 Effective  
16 Operating Capacity;
- 17 3.1.6 The schedule of planned outages for over-  
18 hauls, inspections, and refueling operations;
- 19 3.1.7 Procedures for providing nuclear training  
20 for Edison and San Diego employees and for  
21 personnel other than employees of the  
22 Companies; and
- 23 3.1.8 Other matters as are set forth in this  
24 agreement and the San Onofre Interconnection  
25 Agreement.

26 In addition, the Board of Review shall resolve any

1 questions arising in the implementation of this  
2 agreement which cannot be resolved by the respective  
3 Company representatives appointed pursuant to  
4 Section 3.2 hereof and perform such other duties as  
5 may be agreed to by the Companies from time to time.

6 3.2 Each Company will designate qualified representa-  
7 tives, and alternates authorized to act in the  
8 absence of such representatives, as listed below,  
9 who shall contact each other directly regarding  
10 operating and maintenance matters and shall be  
11 responsible for developing procedures as required to  
12 provide for effective liaison between the Companies.

13 3.2.1 A Generating Station Superintendent to  
14 be appointed by Edison to directly supervise  
15 the operation and maintenance of Unit 1 and  
16 the Station Site and to be the primary  
17 Edison contact on all Unit 1 matters not  
18 delegated to other Edison representatives.

19 3.2.2 A San Diego Plant Representative to be  
20 appointed by San Diego and to be the primary  
21 San Diego contact on all Unit 1 matters not  
22 delegated to other San Diego representatives.  
23 Such representative shall, subject to AEC  
24 regulations:

25 3.2.2.1 Be subject to all plant rules and  
26 regulations to the same extent as

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the Generating Station Superintendent.

3.2.2.2 Have access to the plant at any time to the same extent as the Generating Station Superintendent.

3.2.2.3 Have the right to confer with the Generating Station Superintendent at all reasonable times.

3.2.2.4 Have access to all plant files except for confidential personnel records.

3.2.2.5 Receive copies of plant correspondence to the same extent as the Generating Station Superintendent except for correspondence dealing with confidential personnel records.

3.2.2.6 Have at the plant suitable desk space, file space, furnishings, parking space, and locker facilities.

3.2.2.7 Have access to and use of such duplicating facilities as may be provided at the plant.

3.2.2.8 Be advised as far in advance as possible of special operating and

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1 maintenance plans, tests, and  
2 other important or out-of-the-  
3 ordinary plant activities.

4 3.2.2.9 Be promptly notified of meetings  
5 between the Generating Station  
6 Superintendent and equipment  
7 vendors, personnel from regulatory  
8 agencies, etc.

9 3.2.3 The Edison Dispatcher and the San Diego Load  
10 Supervisor shall be the primary contacts  
11 with regard to the loading of Unit 1 and the  
12 delivery of San Diego's share of Unit 1 out-  
13 put.

14 3.2.4 A Public Relations Representative to be  
15 appointed by each Company to serve as a con-  
16 tact on all matters concerning plant visits  
17 and tours, other than visits by persons,  
18 including Edison and San Diego employees,  
19 having business to transact at the plant.

20 3.2.5 A Fiscal Representative to be appointed by  
21 each Company to serve as a contact on all  
22 matters concerning plant accounting, audits,  
23 billing, operation and maintenance expense  
24 accounting, and other fiscal matters.

25 3.2.6 An Insurance Representative to be appointed  
26 by each Company to serve as a contact on

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all matters concerning insurance.

3.2.7 A Public Information Representative to be appointed by each Company to serve as a contact on all matters concerning publicity and news releases relating to the San Onofre Nuclear Generating Station.

3.2.8 An Engineering Representative to be appointed to serve as a point of contact on Unit 1 engineering activities, including those related to regulatory and nuclear fuel matters. Such Representatives, when authorized by their respective Companies, may represent them in formal meetings, formal proceedings and negotiations concerning regulatory and nuclear fuel matters.

3.3 The representatives appointed pursuant to Section 3.2 hereof shall have responsibilities for contact and coordination between Edison and San Diego on all Unit 1 and Station Site matters pertaining to their areas of responsibility. It is not intended, however, that this will preclude additional full and free exchange of information at all Company levels.

3.4 The representatives appointed pursuant to Section 3.1 or Section 3.2 hereof shall serve at the pleasure of the Company by which they are appointed.

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1 Each Company shall promptly notify the other Company  
2 of the representatives so appointed, or of any  
3 changes of said representatives.

4 4. OPERATION AND MAINTENANCE

5 4.1 Edison shall provide all manpower required for the  
6 operation and maintenance of Unit 1 and the Station  
7 Site. On or before the first of September of each  
8 year, Edison shall prepare and submit to the Board  
9 of Review, for its review and approval, a manpower  
10 budget for Unit 1 and the Station Site for the  
11 ensuing calendar year. On or before the fifteenth  
12 of October of each year, the Board of Review shall  
13 approve a manpower budget for Unit 1 and the Station  
14 Site for the ensuing calendar year. Said manpower  
15 budget may be revised at any time during the year  
16 with the approval of the Board of Review. Edison  
17 shall furnish San Diego with job descriptions for  
18 each position as required. If personnel in addition  
19 to regular Edison employees are required for special  
20 testing, operations, maintenance, or other special  
21 work, such personnel shall be obtained from regular  
22 San Diego employees to the extent that qualified  
23 personnel are available, and the use of such per-  
24 sonnel by Edison will be economical and practical.  
25 San Diego employees so assigned shall work under  
26 the direction and supervision of Edison personnel



1 in charge of such special work.

2 4.2 Edison may use Unit 1 facilities and personnel as  
3 may be necessary to train employees to man Unit 1.  
4 In addition to training personnel for plant manning,  
5 the Unit 1 facilities and personnel may be used at  
6 the request of either Company to provide nuclear  
7 training for its employees in accordance with  
8 principles and procedures approved by the Board of  
9 Review. Training of personnel, other than employees  
10 of the Companies, shall be conducted in accordance  
11 with principles and procedures approved by the Board  
12 of Review.

13 4.3 Edison shall prepare and issue all station orders  
14 and instructions necessary for the operation and  
15 maintenance of Unit 1 and the Station Site. Copies  
16 of all such instructions and orders will be furnished  
17 to the San Diego Plant Representative. To the extent  
18 practicable, Edison will consult with the San Diego  
19 Plant Representative and will submit such instruc-  
20 tions and orders to him for his review and comment  
21 prior to issuance.

22 4.4 Edison will procure all materials, equipment, and  
23 supplies (except nuclear fuel) necessary for the  
24 operation and maintenance of Unit 1 and the Station  
25 Site. Edison shall own an undivided eighty (80)  
26 percent interest, and San Diego shall own an



1 undivided twenty (20) percent interest in such  
2 materials, equipment, and supplies.

3 4.5 On or before the first of September of each year,  
4 Edison will prepare and submit to the Board of  
5 Review, for its review and approval, an operating  
6 and maintenance expense budget and a fuel expense  
7 budget for Unit 1 and the Station Site for the  
8 ensuing calendar year. On or before the fifteenth  
9 of October of each year, the Board of Review shall  
10 approve an operating and maintenance expense budget  
11 and a fuel expense budget for Unit 1 and the Station  
12 Site for the ensuing calendar year. Said operating  
13 and maintenance expense and fuel expense budgets may  
14 be revised at any time with the approval of the  
15 Board of Review.

16 4.6 Edison and San Diego shall enter into agreements  
17 between themselves or jointly with third parties  
18 with respect to the procurement, ownership, manage-  
19 ment, and reprocessing of nuclear fuel required for  
20 the operation of Unit 1.

21 4.7 Edison, in consultation with San Diego, shall pre-  
22 pare and submit annually to the Board of Review,  
23 for its review and approval prior to the fifteenth  
24 of October of each year, a schedule of planned  
25 outages for overhauls, inspections, and refueling  
26 operations for Unit 1 for the ensuing five-year

1 period. Other scheduled outages for Unit 1 shall be  
2 planned by Edison in consultation with San Diego.  
3 Edison, as plant operator, shall have the authority  
4 for taking an unscheduled outage of Unit 1 or limit-  
5 ing the Unit 1 Current Operating Capacity if, in  
6 Edison's judgment, such action is necessary for the  
7 safety of personnel, to prevent damage to equipment,  
8 or to perform emergency repairs or maintenance. To  
9 the extent practicable, the Edison Dispatcher shall  
10 consult with the San Diego Load Supervisor in order  
11 to take such unscheduled outages or limit the  
12 Unit 1 Current Operating Capacity at times mutually  
13 agreed upon.

14 4.8 The Edison Dispatcher and the San Diego Load Super-  
15 visor shall contact each other regarding day-to-day  
16 Unit 1 operating matters, and the San Diego Load  
17 Supervisor shall notify the Edison Dispatcher of  
18 San Diego's desired output of Unit 1. With respect  
19 to such matters, the Edison Dispatcher shall issue  
20 all orders to the Unit 1 control operator, except  
21 as otherwise provided in emergency operating pro-  
22 cedures approved by the Board of Review.

23 4.9 San Diego shall provide a direct communication link  
24 between the San Diego Load Supervisor and the Unit 1  
25 control room so that San Diego may be advised of and  
26 may obtain first-hand information about plant

1 conditions. To the extent practicable, the Unit 1  
2 control operator will simultaneously advise the  
3 Edison Dispatcher and the San Diego Load Supervisor  
4 of plant operating conditions.

5 4.10 Edison shall prepare and maintain records and  
6 reports required in connection with the operation  
7 and maintenance of Unit 1 and the Station Site.  
8 San Diego shall be supplied with a tabulation of all  
9 records and reports routinely prepared and main-  
10 tained and shall be supplied with copies of such  
11 records and reports as it requires. A copy of any  
12 special report required in connection with the  
13 operation and maintenance of Unit 1 and the Station  
14 Site shall be supplied to San Diego. Through  
15 appropriate representatives, San Diego will advise  
16 Edison of information needed for regulatory reports  
17 to be submitted by San Diego, and Edison will make  
18 such information available to San Diego in a timely  
19 manner. San Diego also will be furnished a list of  
20 all plant drawings, equipment, specifications,  
21 manufacturers' operating manuals, etc., and will be  
22 supplied with at least one copy of such of these  
23 items as it requests.

24 4.11 The Edison and San Diego Public Relations Repre-  
25 sentatives, in consultation with the Generating  
26 Station Superintendent, will prepare and submit

1 to the Board of Review, for its review and approval,  
2 rules and procedures covering plant visits and tours.

3 4.12 In the event the operating and maintenance expense  
4 budget, the fuel expense budget, the manpower budget,  
5 or any revision of any of such budgets has been  
6 submitted but has not been approved by the Board of  
7 Review as provided in Sections 4.1 and 4.5 hereof,  
8 Edison shall continue to take all actions necessary  
9 for the operation and maintenance of Unit 1 and the  
10 Station Site until the budget or revision in ques-  
11 tion is approved.

12 5. ALLOCATION OF CAPACITY AND SCHEDULING OF ENERGY

13 5.1 Edison and San Diego shall each have a capacity  
14 entitlement in Unit 1 equal to eighty (80) percent  
15 and twenty (20) percent, respectively, of the Unit 1  
16 Effective Operating Capacity and such capacity  
17 entitlements shall be used for reporting and  
18 resources planning; provided, however, the amount  
19 of Unit 1 capacity available to each of Edison and  
20 San Diego shall, at any given time, be equal to  
21 eighty (80) percent and twenty (20) percent,  
22 respectively, of the Unit 1 Current Operating  
23 Capacity. The Edison Dispatcher will keep the San  
24 Diego Load Supervisor advised of the Unit 1 Current  
25 Operating Capacity.

26 5.2 Edison and San Diego shall each be entitled to

1 schedule generation on Unit 1 (including associated  
2 reactive power), for its account at any time, up to  
3 the amount of Unit 1 Current Operating Capacity  
4 available to it.

5 5.3 Unit 1 shall be operated whenever Edison or San  
6 Diego requests its operation, provided that the  
7 Company requesting such operation schedules genera-  
8 tion, for its account, in an amount at least equal  
9 to eighty (80) percent, for Edison, or twenty (20)  
10 percent, for San Diego, of the Unit 1 Minimum Output.  
11 A Company not requesting operation shall, neverthe-  
12 less, be required to schedule additional generation  
13 to the extent necessary to increase load to the  
14 Unit 1 Minimum Output.

15 5.4 Metering devices have been installed in the Edison  
16 and San Diego Switchyards to provide input to the  
17 Edison and San Diego load frequency control equip-  
18 ment such that an amount of power equal to the sum  
19 of twenty (20) percent of the Unit 1 220-kv Output  
20 plus eighty (80) percent of the Unit 1 Auxiliary "C"  
21 Transformer Demand will automatically flow across  
22 the interconnection from the Edison Switchyard to  
23 the San Diego Switchyard, in addition to any  
24 scheduled interchange from Edison to San Diego.  
25 Edison and San Diego will thereby automatically  
26 receive into their Transmission Lines eighty (80)

1 percent and twenty (20) percent, respectively, of  
2 the Unit 1 Net Output. During periods when Unit 1  
3 is not generating, Edison and San Diego will thereby  
4 automatically supply from their systems eighty (80)  
5 percent and twenty (20) percent, respectively, of  
6 the Unit 1 auxiliary load.

7 5.5 In the event either Company wishes to receive less  
8 than its full entitlement to Unit 1 Net Output, the  
9 Edison Dispatcher and the San Diego Load Supervisor  
10 will arrange for each Company to receive its desired  
11 share of Unit 1 Net Output in accordance with pro-  
12 cedures to be approved by the Board of Review.

13 6. CAPITAL IMPROVEMENTS

14 6.1 On or before the first of September of each year,  
15 Edison shall prepare and submit to the Board of  
16 Review, for its review and approval, a Capital  
17 Improvements budget for the ensuing calendar year.  
18 On or before the fifteenth of October of each year,  
19 the Board of Review shall approve a Capital Improve-  
20 ments budget for the ensuing calendar year, which  
21 said budget may at any time during the year be  
22 revised with the approval of the Board of Review.

23 6.2 Edison shall make all Capital Improvements approved  
24 by the Board of Review.

25 6.3 The costs of all Capital Improvements made by Edison  
26 pursuant to sections 6.2, 13 and 14 hereof shall be

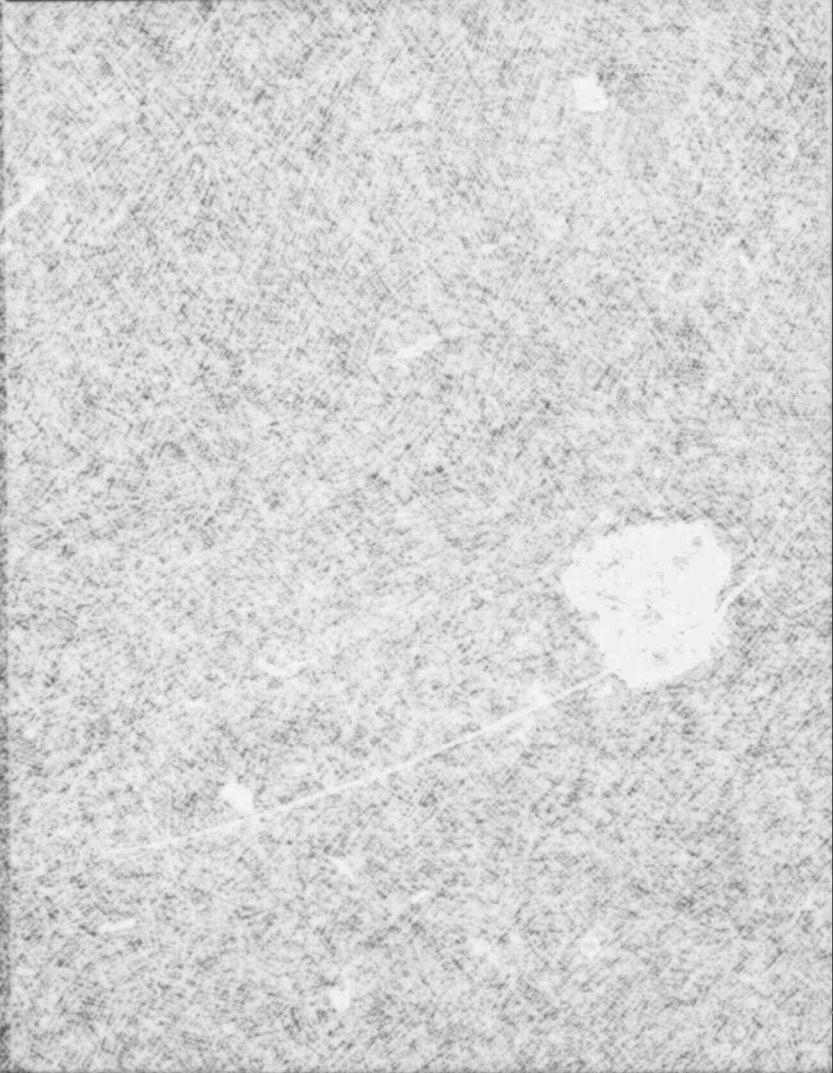
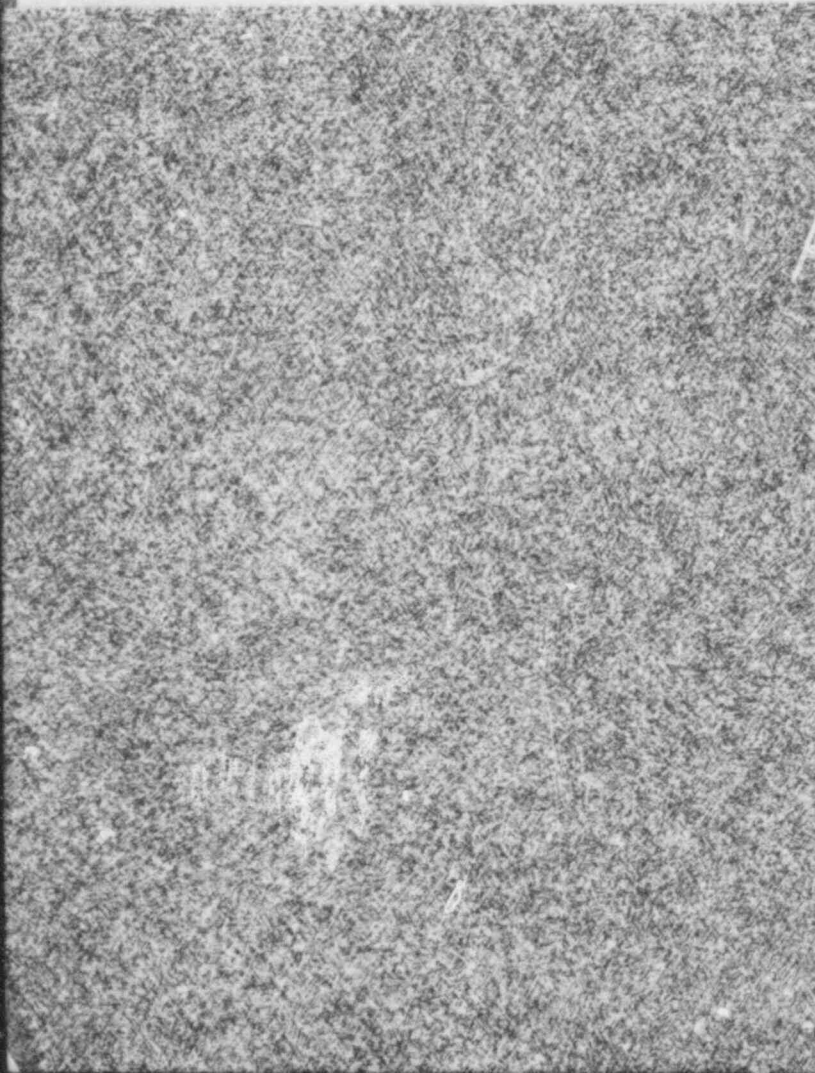
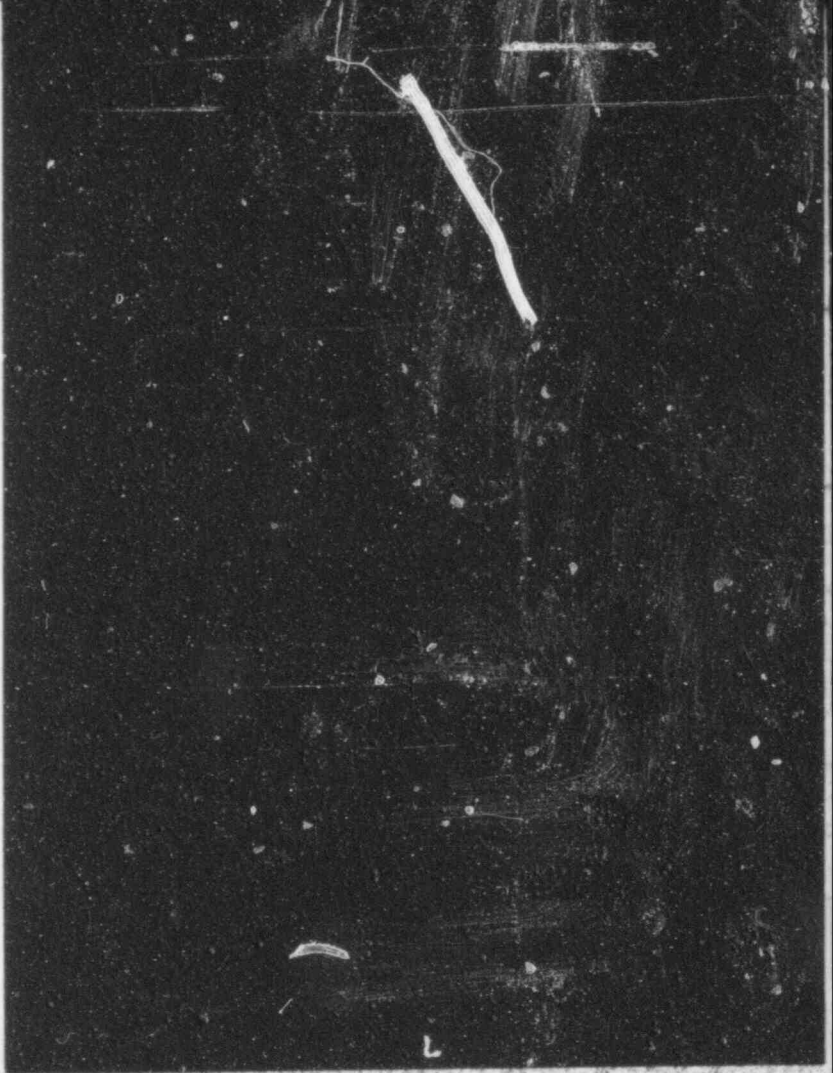
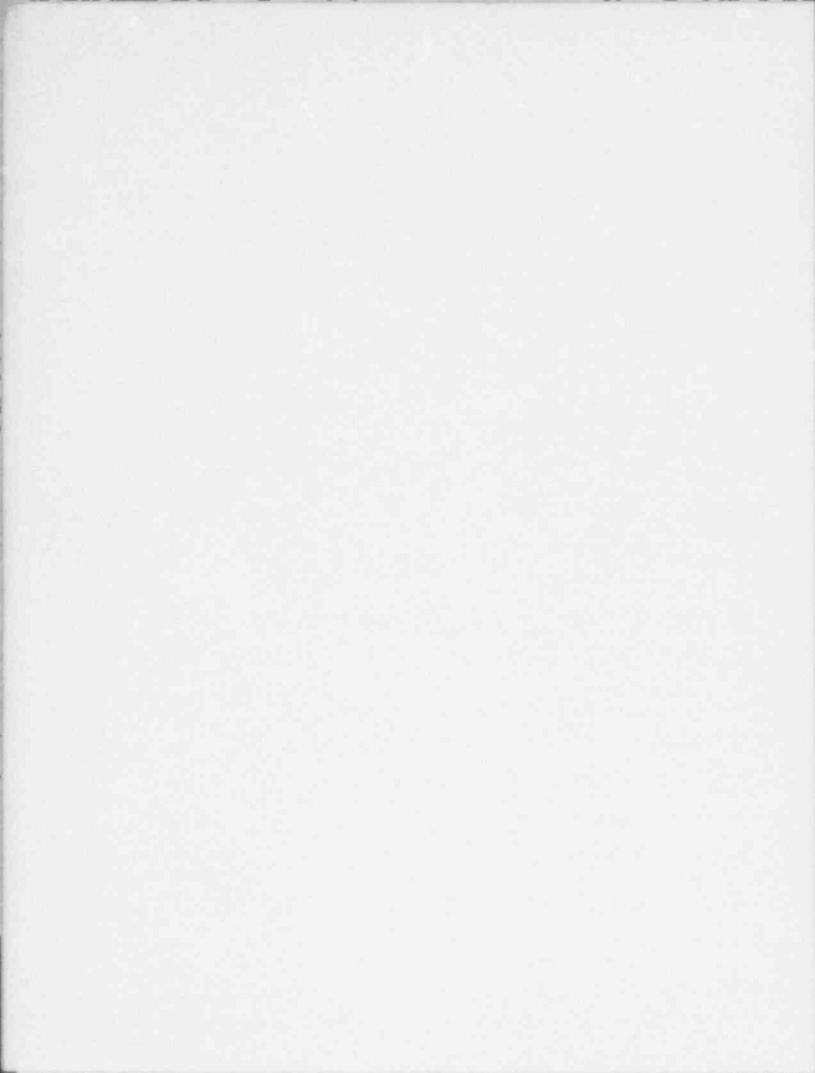
1 shared eighty (80) percent by Edison and twenty (20)  
2 percent by San Diego.

3 6.4 The costs of any Capital Improvement shall include  
4 all costs incurred by Edison which conform to the  
5 provisions of Electric Plant Instruction 3 of the  
6 FPC Accounts entitled "Components of Construction  
7 Cost"; provided, however, for the purpose of billing  
8 San Diego for its share of such costs, Edison shall  
9 abide by the following qualifications to said  
10 Electric Plant Instruction 3:

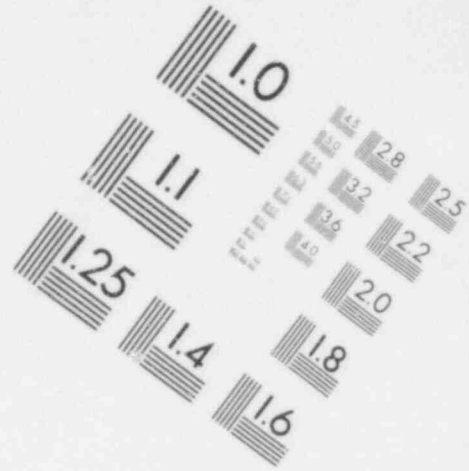
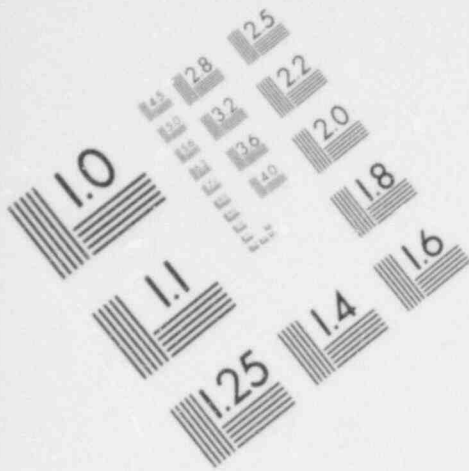
11 6.4.1 Charges pursuant to Item (8) "Injuries and  
12 Damages" and Item (14) "Insurance" shall not  
13 include any costs shared by San Diego pur-  
14 suant to Section 10 hereof which provides  
15 for insurance coverage with respect to  
16 Unit 1. However, such charges shall include  
17 costs of any injuries or damages arising out  
18 of and occurring during the course of con-  
19 struction of a Capital Improvement and the  
20 cost of any additional insurance which the  
21 Insurance Representatives deem necessary to  
22 protect the interests of the Companies in  
23 such a Capital Improvement prior to the time  
24 the coverage provided in Section 10 hereof  
25 becomes applicable thereto.

26 6.4.2 Charges pursuant to Item (12) "General

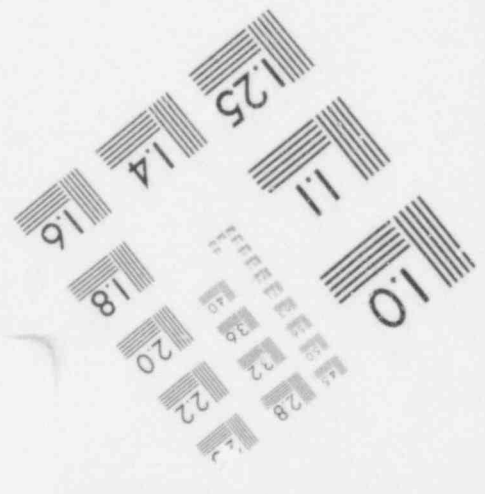
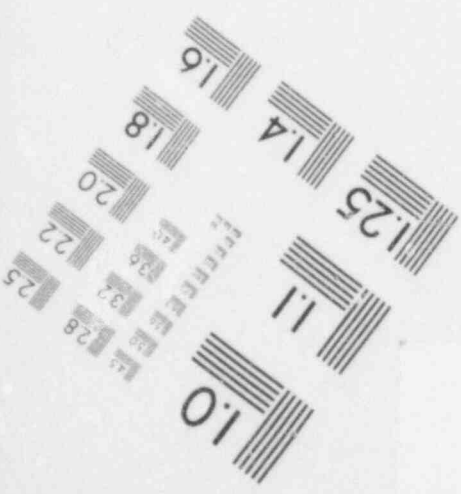
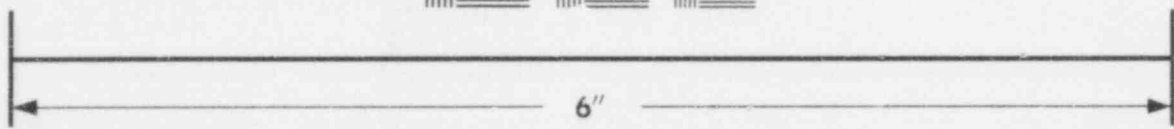


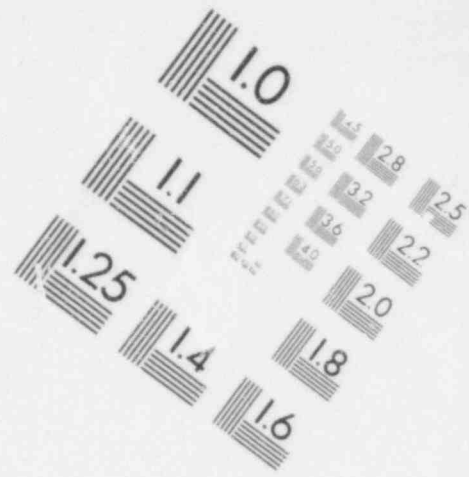
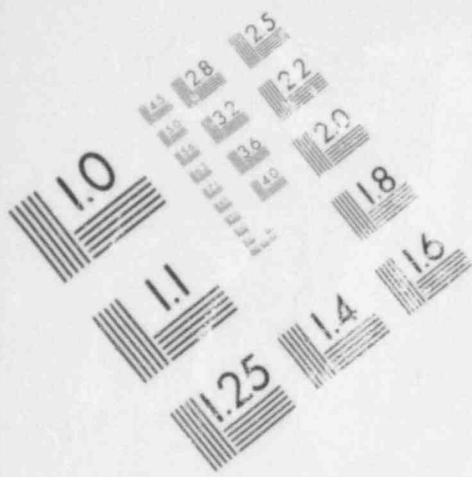




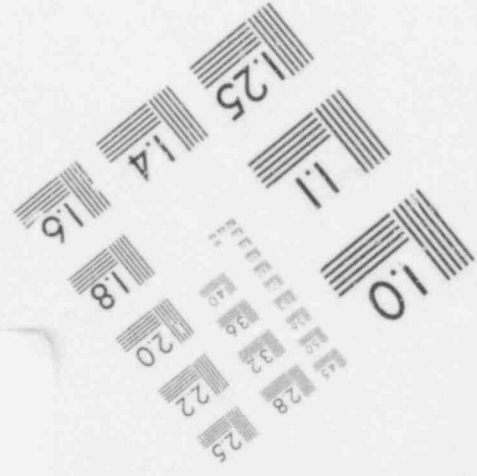
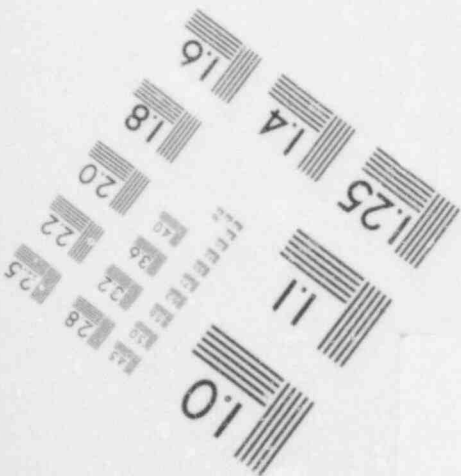
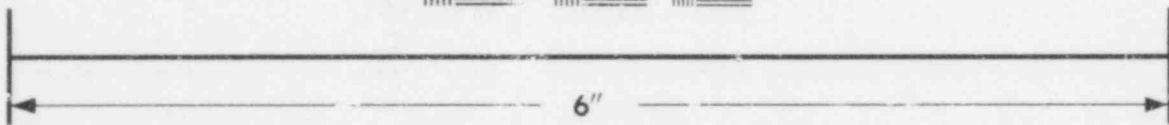


**IMAGE EVALUATION  
TEST TARGET (MT-3)**





**IMAGE EVALUATION  
TEST TARGET (MT-3)**



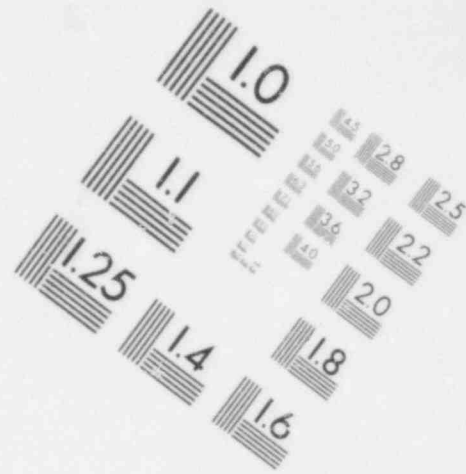
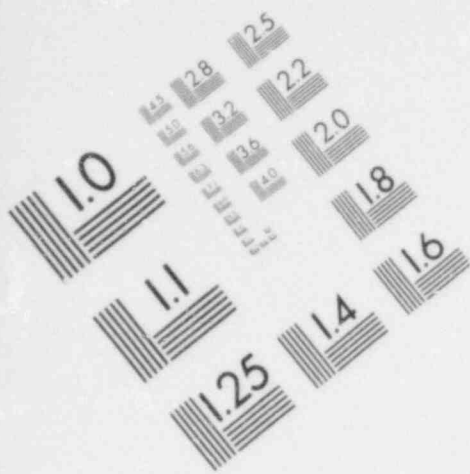
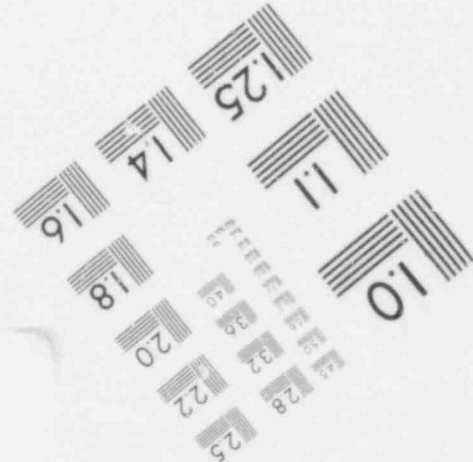
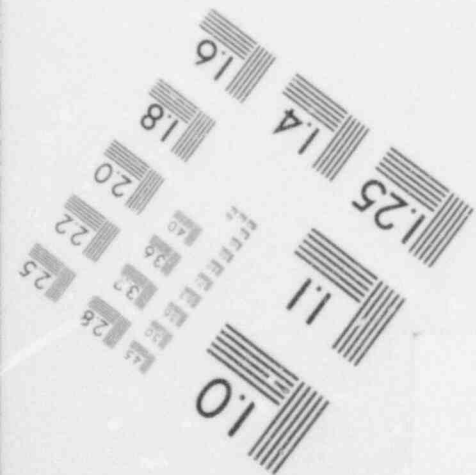
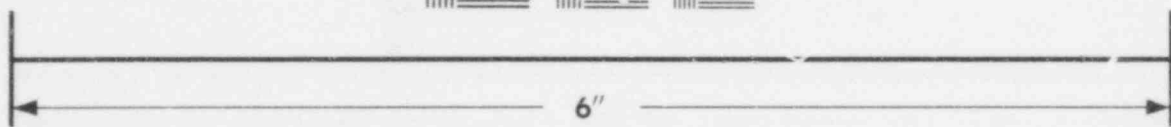


IMAGE EVALUATION  
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1 administration capitalized" shall be as  
2 follows:

3 6.4.2.1 If any Capital Improvement is made  
4 by Edison forces, the amount of  
5 general administration expense  
6 (includes pensions and benefits and  
7 other administrative and general  
8 expenses) allocable to such Capital  
9 Improvement shall be determined by  
10 multiplying the amount of Edison  
11 direct labor costs chargeable  
12 thereto by the Capital A&G Ratio.  
13 The Capital A&G Ratio shall be  
14 determined in accordance with the  
15 method shown in Exhibit G. Esti-  
16 mated ratios shall be used and  
17 year-end adjustments shall be made  
18 in a manner similar to that  
19 described in Sections 7.4.1 and  
20 7.4.2 hereof.

21 6.4.2.2 If any Capital Improvement is made  
22 by a contractor, the amount of  
23 general administration expense  
24 allocable to such Capital Improve-  
25 ment shall be determined by multi-  
26 plying the total work order cost

1                   thereof by 0.01; provided, however,  
2                   such allocable amount shall not be  
3                   less than the lesser of \$50.00 or  
4                   five (5) percent of the total work  
5                   order cost. As used in this  
6                   Section 6.4.2.2, "total work order  
7                   cost" does not include the Edison  
8                   overhead costs of (1) interest  
9                   during construction, (2) taxes  
10                  during construction, (3) injuries  
11                  and damages, and (4) general  
12                  administration expense.

13                  6.4.2.3   The procedures and ratios involved  
14                                in determining the amount of  
15                                general administration expense to  
16                                be allocated to any Capital  
17                                Improvement, as described in this  
18                                Section 6.4.2, shall be reviewed  
19                                from time to time by the Fiscal  
20                                Representatives and, if necessary,  
21                                be revised so that the application  
22                                thereof shall continue to be  
23                                equitable to Edison and San Diego.  
24                                Any such revision shall be agreed  
25                                to in writing by the Fiscal  
26                                Representatives and approved by

1 the Board of Review.

2 6.4.3 Charges pursuant to Item (16) "Taxes" shall  
3 not include any taxes shared by San Diego  
4 pursuant to Section 11 hereof.

5 6.4.4 There shall be no charges made pursuant to  
6 Item (17) "Interest during construction".

7 6.5 Edison, at its own expense, shall make all improve-  
8 ments to the Edison Switchyard, and San Diego, at its  
9 own expense, shall make all improvements to the  
10 San Diego Switchyard, as is more fully provided in  
11 the San Onofre Interconnection Agreement.

12 7. OPERATION AND MAINTENANCE EXPENSES

13 7.1 The expenses incurred by Edison on behalf of itself  
14 and San Diego for the operation and maintenance of  
15 Unit 1 and the Station Site which are chargeable to  
16 FPC Accounts 517, 519 through 525, inclusive, 528  
17 through 532, inclusive, 560, 562, 566, 568, 569,  
18 570, and 573 shall be shared eighty (80) percent by  
19 Edison and twenty (20) percent by San Diego.

20 Charges to such accounts include the following:

21 7.1.1 Overhead expenses incurred by Edison which  
22 are allocable to the operation and mainte-  
23 nance of Unit 1 and the Station Site. Such  
24 overhead expenses shall be determined in  
25 accordance with the allocation procedures  
26 shown in Exhibit B.

1           7.1.2   Nuclear training expenses for the initial  
2                    manning of Unit 1 and for Unit 1 personnel  
3                    replacements required by normal attrition,  
4                    such as promotions, resignations or neces-  
5                    sary transfers. Other nuclear training  
6                    expenses for the training of personnel to  
7                    provide manning of other generating facili-  
8                    ties shall not be charged to the operation  
9                    and maintenance of Unit 1. Any disagreement  
10                  with respect to charging any nuclear training  
11                  expenses to the operation and maintenance of  
12                  Unit 1 shall be resolved by the Board of  
13                  Review.

14           7.1.3   Payments made by Edison to San Diego, pur-  
15                    suant to Section 12.6 hereof, for the use of  
16                    San Diego personnel in the operation and  
17                    maintenance of Unit 1 and the Station Site.

18           7.2   Payroll tax expenses incurred by Edison on behalf of  
19                    itself and San Diego which are allocable to the  
20                    operation and maintenance of Unit 1 and the Station  
21                    Site shall be shared eighty (80) percent by Edison  
22                    and twenty (20) percent by San Diego. The amount of  
23                    such allocable expenses shall be determined by  
24                    multiplying the Edison labor cost portion of the  
25                    expenses determined in accordance with Section 7.1  
26                    hereof by a decimal fraction, hereinafter referred

1           so as the Payroll Tax Ratio. The Payroll Tax Ratio  
2 shall be determined and applied as follows:

3           7.2.1 During each calendar year, an estimated Pay-  
4 roll Tax Ratio shall be used to determine  
5 the amount of payroll tax expenses to be  
6 paid monthly by San Diego. Such estimated  
7 Payroll Tax Ratio shall be determined in  
8 accordance with the method shown in Exhibit C  
9 hereof based on Edison's expenses for the  
10 preceding year; provided, however, by agree-  
11 ment of the Fiscal Representatives, such  
12 ratio may be changed to more nearly reflect  
13 the expected expenses of the current year.

14           7.2.2 As soon as practicable after the end of each  
15 calendar year, the actual Payroll Tax Ratio  
16 for such year shall be determined in accord-  
17 ance with the method shown in Exhibit C  
18 hereof. Using said actual Payroll Tax Ratio,  
19 the payroll tax expenses for which San Diego  
20 is obligated hereunder shall be determined  
21 for such year. To the extent that such  
22 expenses are more or less than those already  
23 paid by San Diego during said year, Edison  
24 shall receive from or pay to San Diego, as  
25 the case may be, the amount of such  
26 difference.



1 7.3 Pensions and benefits expenses (including payroll  
2 tax expenses and Workmen's Compensation expenses  
3 applicable thereto) incurred by Edison on behalf of  
4 itself and San Diego which are allocable to the  
5 operation and maintenance of Unit 1 and the Station  
6 Site shall be shared eighty (80) percent by Edison  
7 and twenty (20) percent by San Diego. The amount of  
8 such allocable expenses shall be determined by multi-  
9 plying the Edison labor cost portion of the expenses  
10 determined in accordance with Section 7.1 hereof by  
11 a decimal fraction, hereinafter referred to as the  
12 Benefits Ratio. The Benefits Ratio shall be deter-  
13 mined and applied as follows:

14 7.3.1 During each calendar year, an estimated  
15 Benefits Ratio shall be used to determine  
16 the amount of pensions and benefits expenses  
17 to be paid monthly by San Diego. Such  
18 estimated Benefits Ratio shall be determined  
19 in accordance with the method shown in  
20 Exhibit E hereof based on Edison's expenses  
21 for the preceding year; provided, however,  
22 by agreement of the Fiscal Representatives,  
23 such ratio may be changed to more nearly  
24 reflect the expected expenses of the current  
25 year.

26 7.3.2 As soon as practicable after the end of each

1 calendar year, the actual Benefits Ratio for  
2 such year shall be determined in accordance  
3 with the method shown in Exhibit E hereof.  
4 Using said actual Benefits Ratio, the pen-  
5 sions and benefits expenses for which San  
6 Diego is obligated hereunder shall be deter-  
7 mined for such year. To the extent that  
8 such expenses are more or less than those  
9 already paid by San Diego during said year,  
10 Edison shall receive from or pay to San  
11 Diego, as the case may be, the amount of  
12 such difference.

13 7.4 Administrative and general expenses (including pay-  
14 roll tax expenses, Workmen's Compensation expenses,  
15 and pensions and benefits expenses applicable there-  
16 to) incurred by Edison on behalf of itself and San  
17 Diego which are allocable to the operation and  
18 maintenance of Unit 1 and the Station Site shall be  
19 shared eighty (80) percent by Edison and twenty (20)  
20 percent by San Diego. The amount of such allocable  
21 expenses shall be determined by multiplying the  
22 Edison labor cost portion of the expenses deter-  
23 mined in accordance with Section 7.1 hereof by a  
24 decimal fraction, hereinafter referred to as the  
25 A & G Ratio. The A & G Ratio shall be determined  
26 and applied as follows:

1           7.4.1    During each calendar year, an estimated  
2                    A & G Ratio shall be used to determine the  
3                    amount of administrative and general expenses  
4                    to be paid monthly by San Diego.  Such esti-  
5                    mated A & G Ratio shall be determined in  
6                    accordance with the method shown in  
7                    Exhibit F hereof based on Edison's expenses  
8                    for the preceding year; provided, however,  
9                    by agreement of the Fiscal Representatives,  
10                   such ratio may be changed to more nearly  
11                   reflect the expected expenses of the current  
12                   year.

13           7.4.2    As soon as practicable after the end of each  
14                    calendar year, the actual A & G Ratio for  
15                    such year shall be determined in accordance  
16                    with the method shown in Exhibit F hereof.  
17                    Using said actual A & G Ratio, the adminis-  
18                    trative and general expenses for which San  
19                    Diego is obligated hereunder shall be deter-  
20                    mined for such year.  To the extent that such  
21                    expenses are more or less than those already  
22                    paid by San Diego during said year, Edison  
23                    shall receive from or pay to San Diego, as  
24                    the case may be, the amount of such  
25                    difference.

26           7.5    The procedures referred to in Section 7.1.1 hereof

1 and the methods for determining and applying the  
2 Payroll Tax Ratio, Benefits Ratio, and A & G Ratio  
3 referred to in Sections 7.2, 7.3, and 7.4 hereof  
4 shall be reviewed from time to time by the Fiscal  
5 Representatives and, if necessary, be revised so  
6 that the application thereof shall continue to be  
7 equitable to Edison and San Diego. Any such revi-  
8 sion shall be agreed to in writing by the Fiscal  
9 Representatives and approved by the Board of Review.

10 7.6 Nuclear training expenses incurred prior to  
11 January 1, 1967, for the initial manning of Unit 1  
12 which have been charged to FPC Account 926 shall be  
13 shared eighty (80) percent by Edison and twenty (20)  
14 percent by San Diego. Any training expenses for  
15 Unit 1 personnel incurred on or after January 1,  
16 1967, which are charged to FPC Account 926 shall be  
17 shared through application of the Benefits Ratio  
18 pursuant to Section 7.3 hereof.

19 7.7 Each Company shall pay all expenses of its repre-  
20 sentatives referred to in Section 3 hereof except  
21 for such expenses properly chargeable to Unit 1.

22 7.8 Edison shall pay all operation and maintenance  
23 expenses of the Edison Switchyard and San Diego  
24 shall pay all operation and maintenance expenses of  
25 the San Diego Switchyard. Such expenses shall not  
26 be shared by the Companies in connection with the

1 operation and maintenance of Unit 1 except for the  
2 costs of meter tests as specified in Section 13.

3 7.9 Edison shall pay directly to the United States its  
4 eighty (80) percent share and San Diego shall pay  
5 directly to the United States its twenty (20) per-  
6 cent share of the annual use charges due under the  
7 terms and conditions of the grants of easements for  
8 the Plant Site, Spur Track Area, and Access Road  
9 Area.

10 8. NUCLEAR FUEL COSTS

11 8.1 During the term of the Fuel Service Contract, Edison  
12 shall make all payments to and receive all moneys  
13 and credits from Westinghouse, the Atomic Energy  
14 Commission, and others, which arise under the Fuel  
15 Service Contract and directly related contracts.  
16 San Diego shall pay to Edison its share of such  
17 payments and shall receive from Edison its share  
18 of moneys and credits, as hereinafter specified, in  
19 the manner provided in Section 12 hereof.

20 8.2 Payments for fuel under Article VI-C of the Fuel  
21 Service Contract shall be shared as follows:

22 8.2.1 The fixed monthly payment shall be shared  
23 eighty (80) percent by Edison and twenty (20)  
24 percent by San Diego.

25 8.2.2 The portion of all energy payments equal to  
26 the zero net load fuel costs for Unit 1

1 shall be shared eighty (80) percent by Edison  
2 and twenty (20) percent by San Diego. Such  
3 zero net load fuel costs shall be determined  
4 each billing period in accordance with pro-  
5 cedures to be approved by the Board of  
6 Review.

7 8.2.3 The remaining portion of all energy payments  
8 shall be shared by Edison and San Diego in  
9 direct proportion to the amount of energy  
10 delivered for the account of each Company  
11 from Unit 1 during the period covered by  
12 such payments.

13 8.3 Any additional payment (including any non-California  
14 taxes associated with reprocessing charges) or credit  
15 which may arise under Article VII of the Fuel Service  
16 Contract, except for those arising under Subdivision  
17 D, shall be shared by Edison and San Diego in direct  
18 proportion to the sums of the energy payments  
19 charged to each Company under Sections 8.2.2 and  
20 8.2.3 hereof, during the period in which the fuel,  
21 to which such additional payment or credit applies,  
22 was used; provided, however, if any such additional  
23 payment or credit applies to fuel which will be used  
24 in the future, it shall be shared initially eighty  
25 (80) percent by Edison and twenty (20) percent by  
26 San Diego and appropriate adjustments shall

1 made periodically, as such fuel shall be used, to  
2 provide sharing of such additional payment or credit  
3 as first specified above in this Section 8.3.

4 8.4 Any additional payment with respect to California  
5 State and local sales and use taxes which may arise  
6 under Article VIII of the Fuel Service Contract shall  
7 be shared by Edison and San Diego in the same propor-  
8 tion as they share (or shared) the payments to which  
9 said taxes apply. Any other payments which may arise  
10 under Article VIII of the Fuel Service Contract shall  
11 be shared eighty (80) percent by Edison and twenty  
12 (20) percent by San Diego.

13 8.5 For the purpose of establishing a scheduled refuel-  
14 ing date with Westinghouse pursuant to Article III  
15 of the Fuel Service Contract, Edison and San Diego  
16 each shall estimate the rate at which it expects to  
17 schedule energy from Unit 1 during the remaining  
18 period of operation before refueling and each shall  
19 advise the other thereof. Any additional payment  
20 which may be required under Article III-B or  
21 Article III-D of the Fuel Service Contract, as a  
22 result of scheduling energy from Unit 1 at a lesser  
23 rate than that estimated, shall be shared by Edison  
24 and San Diego in direct proportion to the amounts by  
25 which the amounts of energy estimated to be scheduled  
26 from Unit 1 exceed the amounts of energy actually



1 taken from Unit 1 by each Company. Neither Company  
2 shall schedule energy at a rate greater than that  
3 estimated during the remaining period of operation  
4 before refueling, without the consent of the other  
5 Company.

6 8.6 Any additional payments which may arise under  
7 Article III-C of the Fuel Service Contract, as a  
8 result of operating Unit 1 at less than ninety (90)  
9 percent capacity factor, shall be shared by Edison  
10 and San Diego in direct proportion to the amounts,  
11 if any, by which the amounts of energy corresponding  
12 to ninety (90) percent capacity factor operation  
13 exceed the amounts of energy actually taken from  
14 Unit 1 by each Company.

15 8.7 All other payments, costs, charges, or credits which  
16 may arise under or in connection with the Fuel  
17 Service Contract or directly related contracts, or  
18 any other agreed upon costs incurred by Edison on  
19 behalf of itself and San Diego for the operation of  
20 Unit 1 which are chargeable to FPC Accounts 157,  
21 158, 159 or 518 shall be shared eighty (80) percent  
22 by Edison and twenty (20) percent by San Diego  
23 unless otherwise determined by the Board of Review.

24 9. ENVIRONMENTAL RADIATION MONITORING

25 Edison shall perform or cause to be performed all  
26 environmental radiation monitoring activities which are



1 necessary in connection with the operation of Unit 1,  
2 including those which must be performed outside of or  
3 away from the San Onofre Nuclear Generating Station.  
4 Such activities include, but are not limited to, (i) the  
5 procurement, installation, operation, and maintenance of  
6 monitoring equipment and supplies, (ii) the collection  
7 and analysis of data, and (iii) the reporting of such  
8 activities and analyses to governmental agencies and  
9 others. All costs incurred by Edison in connection with  
10 or allocable to such environmental radiation monitoring  
11 activities shall be shared eighty (80) percent by Edison  
12 and twenty (20) percent by San Diego.

13 10. INSURANCE

14 10.1 For the protection of Edison and San Diego with  
15 respect to liabilities and risks arising out of the  
16 ownership, operation, or maintenance of Unit 1 and  
17 the Station Site, Edison shall secure and maintain  
18 in force policies of insurance of the following  
19 types, in form, and with companies satisfactory to  
20 the Insurance Representatives, and with premiums to  
21 be shared by Edison and San Diego as set forth in  
22 Section 10.3 hereof. Such insurance coverage shall  
23 be subject to periodic review and revision to assure  
24 the maintenance of insurance protection as deemed  
25 to be required by mutual agreement of the Insurance  
26 Representatives. In the event of any disagreement

1 concerning the securing of or the subsequent revision of such insurance coverage, the matter shall be  
2 submitted to the Board of Review.  
3

4 10.1.1 Comprehensive General Liability Insurance -  
5 Non-nuclear (Including Motor Vehicles)

6 Edison shall extend its comprehensive  
7 general liability insurance to provide  
8 coverage for Unit 1 and the Station Site  
9 with San Diego added as an additional named  
10 insured respecting such coverage.

11 10.1.2 Workmen's Compensation and Employers'  
12 Liability Insurance

13 Edison shall extend its Workmen's Com-  
14 pensation and Employers' Liability Insurance  
15 to the extent of permissible self-insurance  
16 and insured excess to include operating and  
17 maintenance personnel of Edison regularly  
18 assigned to Unit 1.

19 10.1.3 Physical Damage Insurance - Non-nuclear

20 To the extent possible, Edison shall  
21 extend coverage under its Physical Damage  
22 Insurance policies to provide non-nuclear  
23 physical damage coverage for Unit 1 and the  
24 Station Site for risks not covered by the  
25 nuclear property damage insurance referred  
26 to in Section 10.2.2 hereof, with San Diego

1 added as an additional named insured respect-  
2 ing such coverage. This insurance is  
3 applicable to all real and personal property  
4 of every description, subject to policy  
5 exclusions. In the event Edison is unable  
6 to obtain such coverage for Unit 1 and the  
7 Station Site under its present program,  
8 such coverage shall be provided in the  
9 manner and to the extent agreed upon by the  
10 Insurance Representatives.

11 10.2 Nuclear Insurance

12 Edison and San Diego shall secure and maintain in  
13 force the following insurance and other coverages  
14 with respect to Unit 1 and the Station Site:

15 10.2.1 Protection against liability arising out  
16 of, or resulting from, a "nuclear incident"  
17 as defined in the Atomic Energy Act of  
18 1954, as amended, to include (a) liability  
19 insurance from the Nuclear Energy  
20 Liability Insurance Association and/or  
21 the Mutual Atomic Energy Liability Under-  
22 writers, or equivalent insurance in such  
23 amount and in such form as shall meet  
24 the financial protection requirements of  
25 the Atomic Energy Commission pursuant to  
26 Subsection 170(b) of the Atomic Energy

1 Act of 1954, as amended; and (b) a  
2 Government Indemnity Agreement with the  
3 Atomic Energy Commission pursuant to the  
4 Subsection 170(c) of the Atomic Energy  
5 Act of 1954, as amended; and

6 10.2.2 Nuclear property damage insurance from the  
7 Nuclear Energy Property Insurance Associa-  
8 tion and/or the Mutual Atomic Energy  
9 Reinsurance Pool, or equivalent insurance,  
10 and any additional nuclear property damage  
11 insurance coverage, in such amount and such  
12 form as are agreed upon by the Insurance  
13 Representatives.

14 10.3 The premium costs allocable to the additional non-  
15 nuclear insurance coverage with respect to Unit 1  
16 and the Station Site described in Section 10.1  
17 hereof and for the nuclear insurance described in  
18 Section 10.2 hereof shall be shared eighty (80)  
19 percent by Edison and twenty (20) percent by San  
20 Diego. All dividends, return premiums, and credits  
21 received respecting Unit 1 insurance policies  
22 shall be shared in the same proportions.

23 10.4 San Diego shall provide, at its sole expense,  
24 Workmen's Compensation and Employers' Liability  
25 Insurance to cover the San Diego Plant Representa-  
26 tive, San Diego personnel used for special work on

1 Unit 1 pursuant to Section 4.1 hereof, San Diego  
2 personnel receiving training at the San Onofre  
3 Nuclear Generating Station pursuant to Section 4.2  
4 hereof, and any other San Diego personnel while at  
5 the San Onofre Nuclear Generating Station.

6 10.5 Edison shall investigate, adjust and settle claims  
7 asserted by any party other than a Company against  
8 the Companies or either of them, which are claims  
9 of the type referred to in Section 16.3 hereof;  
10 however, San Diego shall investigate, adjust and  
11 settle claims asserted by any of its ultimate  
12 consumers, which are claims of the type referred to  
13 in Section 16.4 hereof. At the request of Edison,  
14 San Diego shall assist in the investigation, adjust-  
15 ment and settlement of any such claims.

16 10.6 Edison shall present and prosecute claims for  
17 losses and damages against any insurer or third  
18 party. Costs incurred by Edison in presenting and  
19 prosecuting such claims and any other costs  
20 incurred by Edison arising out of the operation  
21 and maintenance of Unit 1 and the Station Site  
22 which are chargeable to FPC Account 924, will be  
23 shared eighty (80) percent by Edison and twenty  
24 (20) percent by San Diego.

25 10.7 Through the appointed Insurance Representatives,  
26 Edison shall consult with San Diego on matters

1 of insurance with respect to Unit 1 and the Station  
2 Site and shall provide San Diego copies of the  
3 following:

4 10.7.1 Policies of nuclear insurance and certifi-  
5 cates of insurance applicable to non-nuclear  
6 coverages in effect.

7 10.7.2 Invoices applicable to insurance costs.

8 10.7.3 Notices of losses in excess of \$1,000  
9 applicable to physical damage, third party  
10 liability, and Workmen's Compensation.

11 10.7.4 Notices of Workmen's Compensation claims  
12 filed with the Workmen's Compensation  
13 Appeals Board.

14 10.7.5 Annual summaries of Workmen's Compensation  
15 claims.

16 10.7.6 Status reports of all claims involving a  
17 potential loss in excess of \$1,000.

18 10.8 San Diego shall pay to Edison its share of premium  
19 costs and other insurance costs in the manner  
20 provided in Section 12 hereof.

21 11. AD VALOREM TAXES

22 11.1 Edison and San Diego shall use their best efforts to  
23 have any taxing authority imposing ad valorem taxes  
24 or assessments on the San Onofre Nuclear Generating  
25 Station assess and levy such taxes and assessments  
26 directly against each Company on the basis of its

1 percentage ownership in the property taxed.

2 11.2 All ad valorem taxes or assessments so levied  
3 against each Company shall be the sole responsi-  
4 bility of the Company upon whom said taxes or  
5 assessments are levied.

6 11.3 If any ad valorem taxes or assessments are assessed  
7 and levied in a manner other than that specified in  
8 Section 11.1 hereof, it shall be the responsibility  
9 of the Board of Review to establish procedures for  
10 the equitable apportionment of such taxes or assess-  
11 ments and the payment thereof.

12 12. PAYMENTS

13 12.1 As soon as practicable after the date of execution  
14 of this agreement, Edison shall submit to San Diego  
15 an accounting report showing:

16 12.1.1 All expenditures in connection with the  
17 operation and maintenance of Unit 1 and  
18 the Station Site (except for such expendi-  
19 tures which have been or will be capitalized  
20 and shared under the Edison-San Diego  
21 Agreement) which have been made by Edison  
22 on behalf of itself and San Diego on or  
23 before the last day of the calendar month  
24 in which this agreement is executed;

25 12.1.2 San Diego's share of such expenditures  
26 determined in accordance with the

1 provisions of Sections 6, 7, 8, 9, 10, 14,  
2 15 and 16 hereof;

3 12.1.3 The month and year in which such expendi-  
4 tures were made; and

5 12.1.4 The amount of interest then due on San  
6 Diego's share of such expenditures computed  
7 from the fifteenth day of the month in  
8 which such expenditures were made at the  
9 rate of six (6) percent per annum.

10 12.2 San Diego shall pay to Edison its share of the  
11 expenditures and accumulated interest shown in said  
12 accounting report within ten days after receipt by  
13 San Diego of said accounting report.

14 12.3 With respect to Unit 1 and Station Site expenditures  
15 made after the last day of the calendar month in  
16 which this agreement is executed, Edison shall  
17 notify San Diego of San Diego's share of such Unit 1  
18 and Station Site expenditures made pursuant to  
19 Sections 6, 7, 9, 14, 15 and 16 hereof and San Diego  
20 shall pay its share of such expenditures to Edison,  
21 in the manner specified below:

22 12.3.1 On or before the first day of each calendar  
23 month, Edison shall submit in writing to  
24 San Diego (a) an estimate of all such  
25 expenditures which Edison expects to make  
26 on behalf of itself and San Diego during



1 that calendar month, (b) an estimate of  
2 San Diego's share of such expenditures  
3 determined in accordance with the provisions  
4 of this agreement, and (c) the amount of  
5 money to be paid by San Diego in payment of  
6 its share of expenditures. In determining  
7 such amount, Edison shall take account of  
8 any unexpended balance of funds previously  
9 advanced by San Diego pursuant hereto or  
10 any deficiency in funds previously so  
11 advanced by San Diego.

12 12.3.2 San Diego shall pay to Edison the amount of  
13 money so specified on or before the  
14 fifteenth day of the calendar month for  
15 which expenditures have been estimated.

16 12.3.3 As soon as practicable after the close of  
17 each calendar month, Edison shall furnish to  
18 San Diego an accounting report covering all  
19 Unit 1 and Station Site costs incurred by  
20 Edison on behalf of itself and San Diego  
21 during that month.

22 12.3.4 Upon termination of this agreement and after  
23 all Unit 1 and Station Site costs incurred  
24 under this agreement have been determined,  
25 Edison shall pay to San Diego any unexpended  
26 balance of funds previously advanced by

1 San Diego or San Diego shall pay to Edison  
2 any deficiency in funds previously advanced  
3 by San Diego.

4 12.4 With respect to expenditures to be made pursuant to  
5 Section 8 hereof after the last day of the calendar  
6 month in which this agreement is executed, Edison  
7 shall notify San Diego and San Diego shall pay its  
8 share of such expenditures in the manner specified  
9 below:

10 12.4.1 Not less than five business days prior to  
11 the date Edison must make such expenditures,  
12 Edison shall provide San Diego with a  
13 written statement of San Diego's share of  
14 such expenditures.

15 12.4.2 San Diego shall pay its share of such  
16 expenditures to Edison no later than the  
17 date Edison must make such expenditures.

18 12.4.3 In the event Edison is unable to make an  
19 accurate determination of San Diego's share  
20 in sufficient time to give San Diego the  
21 notice provided for in Section 12.4.1  
22 hereof, Edison shall estimate San Diego's  
23 share and San Diego shall pay such esti-  
24 mated amount. The following billing will  
25 be adjusted by the amount such estimated  
26 share differs from San Diego's actual

1 share subsequently determined.

2 12.4.4 Upon written agreement of the Fiscal  
3 Representatives, San Diego may pay its share  
4 of all or any of the expenditures described  
5 in Section 8 hereof, other than payments to  
6 Westinghouse, the Atomic Energy Commission,  
7 or the fuel reprocessor, in the manner  
8 described in Section 12.3 hereof.

9 12.5 With respect to expenditures to be made by Edison  
10 pursuant to Section 10 hereof after the last day of  
11 the calendar month in which this agreement is  
12 executed, Edison shall provide San Diego a written  
13 statement of San Diego's share of such expenditures  
14 not less than eight business days in advance of the  
15 date Edison must make such expenditures. San Diego  
16 shall pay its share of such expenditures to Edison  
17 no later than the date that Edison must make such  
18 expenditures.

19 12.6 If and to the extent that San Diego personnel are  
20 used for special work on Unit 1 and the Station  
21 Site, as provided in Section 4.1 hereof, San Diego  
22 shall pay all wages, salaries, and other expenses  
23 associated with such use of San Diego personnel.  
24 San Diego shall advise Edison in advance of the  
25 basis of the charges to be made by San Diego for  
26 the use of its personnel and Edison shall make

1 payment to San Diego thereof on completion or dur-  
2 ing the course of such work, as the Companies may  
3 agree. Edison shall charge any such payment to  
4 Unit 1 and the Station Site.

5 12.7 The accounting reports submitted by Edison covering  
6 Unit 1 and Station Site costs shall be in a form  
7 satisfactory to San Diego with sufficient detail to  
8 enable San Diego to allocate costs to the proper  
9 FPC Accounts and to ascertain the accuracy and  
10 correctness of such costs.

11 12.8 San Diego shall have the right to post-audit the  
12 books and records of Edison pertaining to Unit 1 and  
13 the Station Site. Should any post-audit reveal  
14 errors, omissions or items not properly chargeable  
15 to Unit 1 and the Station Site or to San Diego in  
16 the amounts billed, appropriate adjustments shall  
17 be made.

18 12.9 Annually or at such other intervals agreed upon by  
19 the Fiscal Representatives, Edison shall prepare  
20 and distribute complete compilations of Unit 1 and  
21 Station Site costs which are required for fiscal  
22 purposes by the Companies. San Diego will assist  
23 in such preparations as necessary.

24 12.10 Any disagreement as to whether San Diego's share  
25 of Unit 1 and Station Site costs has been properly  
26 determined in accordance with the provisions of

1 this agreement, which is not resolved within sixty  
2 days of the date written notice of such disagreement  
3 is given, shall be referred to the Board of Review.  
4 If after thirty days the Board of Review has not  
5 resolved the dispute, the matter may be submitted  
6 to arbitration as provided in Section 17 hereof.

7 12.11 Any payment by either Company to the other under  
8 this agreement which is not made when due shall  
9 thereafter be payable with interest computed at the  
10 rate of ten (10) percent per annum from the date  
11 payment is due until the date payment is received.

12 12.12 In the event either Company disputes any portion  
13 of any payment which it is required to make to the  
14 other Company under this agreement, the disputing  
15 Company shall give written notice thereof and shall  
16 pay the full amount of such payment on or before  
17 the date when such payment is due. In the event  
18 it is determined subsequently that the disputing  
19 Company is entitled to a refund of all or any por-  
20 tion of such payment, then the other Company shall  
21 thereupon pay to the disputing Company the amount  
22 of such refund with interest computed at the rate  
23 of ten (10) percent per annum from the date of  
24 payment to the date of reimbursement.

25 13. UNIT 1 OPERATING IMPAIRMENT

26 In the event of a Unit 1 Operating Impairment,

1 submit such applications to San Diego for approval  
2 and execution prior to filing.

3 14.2 The Companies, through and as agreed upon by their  
4 appropriate representatives, shall meet or communi-  
5 cate regularly to advise, inform, and consult with  
6 each other on all significant matters and upcoming  
7 meetings connected with the regulation of the  
8 San Onofre Nuclear Generating Station by the Atomic  
9 Energy Commission or other regulatory agencies.  
10 San Diego's representatives shall have the right to  
11 attend and participate in all such meetings,  
12 whether in-house, with the AEC, or others.

13 14.3 Except as the Companies may otherwise mutually  
14 agree, Edison and San Diego shall take all actions,  
15 including the making of Capital Improvements, which  
16 are reasonably necessary to obtain regulatory  
17 approval for the operation of Unit 1, including all  
18 such actions which are reasonably necessary to  
19 obtain without unreasonable delay a permanent  
20 operating license for Unit 1.

21 14.4 Engineering costs incurred by Edison which are  
22 required in connection with its activities pursuant  
23 to Section 14.1 hereof shall be included among the  
24 expenses to be shared by the Companies pursuant to  
25 Section 7.1 hereof, except for any such costs  
26 which shall be chargeable to Capital Improvements

1 Edison shall take all actions reasonably necessary and  
2 required to restore or maintain the operating capability  
3 and reliability of Unit 1 in a timely manner; provided,  
4 however, if all or substantially all (as determined by  
5 the Board of Review) of Unit 1 is destroyed, damaged, or  
6 condemned, no such restoration shall be undertaken unless  
7 the Companies agree thereto. As soon as practicable  
8 after the commencement of any Unit 1 Operating Impairment,  
9 Edison shall advise San Diego of the occurrence and  
10 nature of such Unit 1 Operating Impairment and the actions  
11 being taken and contemplated to be taken to restore or  
12 maintain the operating capability and reliability of  
13 Unit 1.

14 14. ATOMIC ENERGY COMMISSION REGULATORY MATTERS

15 14.1 Edison, in consultation with San Diego, shall be  
16 responsible for the preparation and filing with the  
17 Atomic Energy Commission of any application for a  
18 construction permit and a license to acquire,  
19 possess, and use Unit 1, including any amendments  
20 thereof, to extend the term of the provisional  
21 operating license or to acquire a permanent  
22 operating license, and for handling all other  
23 matters with the Atomic Energy Commission in  
24 connection therewith, except for any such matters  
25 which the Atomic Energy Commission may require  
26 San Diego to handle independently. Edison shall



1 required in connection therewith and shared pursuant  
2 to Section 6 hereof. If it should be determined  
3 subsequently that such costs are not chargeable to  
4 any of the FPC Accounts referred to in Section 7.1  
5 hereof, such costs shall nevertheless be treated,  
6 for purposes of this agreement, as if they were so  
7 chargeable.

8 15. METER TESTS

9 15.1 In accordance with test procedures approved by the  
10 Board of Review, Edison shall make routine tests of  
11 the meters in the Edison Switchyard which measure  
12 (a) energy deliveries between Unit 1 and the Edison  
13 Switchyard, (b) energy deliveries from the San  
14 Diego Switchyard to the Unit 1 Auxiliary "C" Trans-  
15 former, and (c) energy deliveries over the inter-  
16 connection between the Edison and San Diego  
17 Switchyards. Edison shall make such tests during  
18 the month of June of each year or at such other  
19 times as may be agreed upon. Edison shall adjust  
20 or replace any meter which is found to be inac-  
21 curate. Edison shall, at the request of San Diego,  
22 or may, on its own initiative, make special tests  
23 of said meters. Edison shall give San Diego rea-  
24 sonable notice of the time when meter tests will be  
25 made and San Diego shall have the right to have a  
26 representative witness the tests. The costs of



1 meter tests shall be shared eighty (80) percent by  
2 Edison and twenty (20) percent by San Diego, except  
3 that the requesting or initiating Company shall pay  
4 the entire cost of any special tests it requests or  
5 initiates wherein the percentage error is found to  
6 be less than one (1) percent slow or fast.

7 15.2 If any test shows any meter to be inaccurate by  
8 more than one (1) percent or if any meter fails to  
9 register, corrections, equal to the amount of error  
10 as found, shall be made to the records of the  
11 measurements made by such meter during the period  
12 of such erroneous meter registration or, if such  
13 period cannot be determined or reasonably esti-  
14 mated, for half the period from the date of the  
15 last preceding test. Billing adjustments or energy  
16 exchanges corresponding to such corrections shall  
17 be made in accordance with procedures approved by  
18 the Board of Review.

19 16. LIABILITY

20 16.1 Each Company shall be responsible for the conse-  
21 quences of its Willful Action, and shall indemnify  
22 the other Company from the consequences thereof.

23 16.2 Except for any loss, damage, cost, charge, or  
24 expense (hereinafter collectively referred to as  
25 "Damage") resulting from Willful Action, and  
26 except to the extent of any Damage covered by valid

1 and collectible Unit 1 Insurance, no Company (First  
2 Company), its directors, officers or employees shall  
3 be obligated to discharge any liability to the other  
4 Company (Second Company) for any direct, indirect or  
5 consequential Damage of any kind or nature incurred  
6 by the other Company (Second Company) resulting  
7 [whether or not from the negligence of a Company  
8 (First Company), its directors, officers, employees  
9 or any other person or entity whose negligence would  
10 be imputed to such Company (First Company)] from  
11 (i) the ownership, operation, maintenance or use of  
12 the San Onofre Nuclear Generating Station, or (ii)  
13 the performance or non-performance of the obliga-  
14 tions of a Company under any of the San Onofre  
15 Agreements. Subject to the exceptions in this  
16 Section 16.2, each Company (Second Company)  
17 expressly releases the other Company (First Company),  
18 its directors, officers, and employees from any  
19 such liability, or from any judgment obtained  
20 against such other Company (First Company), its  
21 directors, officers or employees, for any such  
22 liability, and such Company (Second Company) shall  
23 not execute, nor or otherwise enforce such a judg-  
24 ment (including recording or effecting a judgment  
25 lien) against the other Company (First Company),  
26 its directors, officers or employees.

1           16.3 Except for any liability resulting from Willful  
2           Action, except as provided in Sections 16.4 and  
3           16.5 hereof, and except for any liability paid for  
4           by Unit 1 Insurance, Edison shall pay eighty (80)  
5           percent and San Diego shall pay twenty (20) percent  
6           of (i) the costs and expenses of discharging lia-  
7           bility of one or both of the Companies for any  
8           Damage of any kind or nature (including direct,  
9           indirect or consequential Damage) suffered or  
10          incurred by any party other than a Company (whether  
11          or not resulting from the negligence of any Company,  
12          its directors, officers, employees, or any other  
13          person or entity whose negligence would be imputed  
14          to such Company) resulting from (a) the ownership,  
15          operation, maintenance or use of Unit 1 or the  
16          Station Site, or (b) the performance or non-  
17          performance of the obligations of a Company under  
18          any of the San Onofre Agreements, and (ii) the  
19          costs and expenses incurred in settlement of  
20          injuries and damages claims, including attorneys'  
21          fees and the cost of labor and related supplies and  
22          expenses incurred in injuries and damages activities  
23          (all as referred to in FPC Account 925), resulting  
24          from or arising out of such liability.

25          16.4 Except for any liability resulting from Willful  
26          Action and except for any liability paid for by

1 insurance or the Government Indemnity Agreement  
2 referred to in Section 10.2.1 hereof, either Company  
3 whose ultimate consumer shall make a claim or demand,  
4 or bring an action for any death, injury or Damage  
5 arising out of electric service to such ultimate con-  
6 sumer and resulting from (i) the ownership, operation,  
7 maintenance or use of Unit 1 or the Station Site, or  
8 (ii) the performance or non-performance of the obliga-  
9 tions of a Company under any of the San Onofre Agree-  
10 ments shall indemnify and hold harmless the other  
11 Company, its directors, officers and employees from  
12 and against any claim, demand or liability for such  
13 death, injury or Damage. The term "ultimate consumer"  
14 means an electric consumer to whom no electric power  
15 or energy is delivered for resale.

16 16.5 Except for any liability resulting from Willful Action,  
17 each Company shall bear the total cost of discharging  
18 all legal liability imposed upon it or the other  
19 Company, including attorneys' fees and other associ-  
20 ated costs, arising out of Workmen's Compensation  
21 claims (or employer's liability claims) brought by its  
22 employees, provided, however, the total cost of dis-  
23 charging such liability, including attorneys' fees and  
24 other associated costs, arising out of such Workmen's  
25 Compensation claims brought by Edison personnel whose  
26 labor expenses are charged or allocated to the opera-

1 tion and maintenance of Unit 1 and the Station Site  
2 pursuant to Section 7.1 hereof, shall be shared eighty  
3 (80) percent by Edison and twenty (20) percent by  
4 San Diego.

5 17. ARBITRATION

6 17.1 In the event that San Diego and Edison, acting through  
7 their respective members on the Board of Review, should  
8 be unable to reach agreement with respect to a matter  
9 herein specified to be approved, established, deter-  
10 mined, or resolved by agreement of the Companies, or by  
11 their representatives appointed pursuant to this agree-  
12 ment, either Company may call for submission of such  
13 matter or dispute to arbitration in the manner herein  
14 set forth, which call shall be binding upon the other  
15 Company to the dispute. Edison shall continue to do  
16 all things and make all expenditures necessary for the  
17 operation and maintenance of Unit 1 and the Station  
18 Site pending the final decision of the arbitrators.

19 17.2 The Company calling for arbitration shall give notice to  
20 the other Company, setting forth in such notice in ade-  
21 quate detail the issues to be arbitrated, and within ten  
22 days from receipt of such notice the other Company may  
23 by notice to the first Company set forth in adequate  
24 detail additional related issues to be arbitrated.

25 17.3 Within twenty days from its notice calling for the  
26 arbitration, the first Company shall appoint a

1 person to serve as one arbitrator, and shall give  
2 notice to the other Company of such appointment, and  
3 within fifteen days after receipt of notice of  
4 appointment of the first arbitrator, the other  
5 Company shall appoint a person to serve as a second  
6 arbitrator, and shall give notice to the first  
7 Company of such appointment. The two persons so  
8 appointed shall then agree upon and secure a third  
9 arbitrator. If the second arbitrator should not be  
10 appointed within fifteen days after receipt of  
11 notice of appointment of the first, or if the third  
12 arbitrator should not be secured within fifteen  
13 days from the appointment of the second, either  
14 Company may with notice to the other Company call  
15 upon the American Arbitration Association (or upon  
16 a similar organization if the American Arbitration  
17 Association should not at that time exist) for  
18 appointment of an arbitrator skilled with respect to  
19 the matter to be arbitrated, and whose appointment  
20 shall be binding on both Companies. No person  
21 shall be eligible for appointment by the American  
22 Arbitration Association who is an officer,  
23 employee, shareholder of, or otherwise interested  
24 in either of the Companies hereto or in the matter  
25 to be arbitrated.

26 17.4 The arbitrators so appointed shall hear evidence

1 submitted by both Companies and may call for addi-  
2 tional information, which additional information  
3 the Companies or Company called upon shall furnish  
4 to the extent feasible. A decision or determina-  
5 tion signed by a majority of the arbitrators shall  
6 be conclusive with respect to the issues submitted  
7 and shall be binding upon both Companies.

8 17.5 Except as otherwise provided in Sections 17.1,  
9 17.2, 17.3, and 17.4 hereof, the arbitration shall  
10 be governed by the rules of practice and procedure  
11 of the American Arbitration Association from time  
12 to time in force, except that, if such rules and  
13 practice as herein modified shall conflict with the  
14 California Code of Civil Procedure or any other  
15 provision of California law then in force, such  
16 California rules and provisions shall govern. This  
17 submission and agreement to arbitrate shall be  
18 specifically enforceable. The award of the  
19 arbitrators or a majority of them upon any question  
20 submitted to them hereunder shall be final and  
21 binding upon the Companies to the extent and in the  
22 manner provided by the California Code of Civil  
23 Procedure.

24 17.6 Each Company shall bear the fee and personal  
25 expenses of the arbitrator appointed by it,  
26 together with the fees and expenses of its own

1           counsel and of its own witnesses, and all other  
2           costs and expenses of the arbitration shall be borne  
3           one-half by the Company calling for arbitration and  
4           one-half by the other Company involved, unless a  
5           decision of the arbitrators shall specify a dif-  
6           ferent apportionment of any or all of such costs  
7           and expenses.

8   18.   FORCE MAJEURE

9           Neither Company shall be considered to be in breach  
10          of any of the obligations hereunder to the extent failure  
11          of performance shall be due to uncontrollable forces.  
12          The term "uncontrollable forces" shall mean any cause  
13          beyond the control of a Company unable to perform such  
14          obligation, including, but not limited to, failure of  
15          facilities, flood, earthquake, storm, fire, lightning,  
16          and other natural catastrophes, epidemic, war, riot,  
17          civil disturbance, labor dispute, sabotage, Government  
18          priorities, restraint by Court order or public authority,  
19          and action or non-action by or failure to obtain the  
20          necessary authorizations or approvals from any Government  
21          agency or authority, which by exercise of reasonable  
22          diligence and foresight such Company could not reasonably  
23          have been expected to avoid and which by exercise of  
24          reasonable diligence it has been unable to overcome.  
25          Nothing contained herein shall be construed so as to  
26          require a Company to settle any strike or labor dispute



1 in which it may be involved. Any Company rendered unable  
2 to fulfill any obligation by reason of uncontrollable  
3 forces shall exercise due diligence to remove such  
4 inability with all reasonable dispatch.

5 19. RELATIONSHIP OF PARTIES

6 19.1 The covenants, obligations, and liabilities of the  
7 Companies are intended to be several and not joint  
8 or collective, and nothing herein contained shall  
9 ever be construed to create an association, joint  
10 venture, trust or partnership, or to impose a trust  
11 or partnership covenant, obligation or liability on  
12 or with regard to either of the Companies. Each  
13 Company hereto shall be individually responsible  
14 for its own covenants, obligations, and liabilities  
15 as herein provided. Neither Company shall be under  
16 the control of or shall be deemed to control the  
17 other Company. No Company shall have a right or  
18 power to bind the other Company without its express  
19 written consent, except as expressly provided in  
20 the San Onofre Agreements.

21 19.2 The Companies hereby elect to be excluded from the  
22 application of Subchapter "K" of Chapter 1 of Sub-  
23 title "A" of the Internal Revenue Code of 1954, or  
24 such portion or portions thereof as may be permitted  
25 or authorized by the Secretary of the Treasury or  
26 his delegate insofar as such subchapter, or any

1           portion or portions thereof, may be applicable to  
2           the Companies under the San Onofre Agreements.

3 20. NOTICES

4           All notices under this agreement shall be in writing  
5           and shall be delivered in person or sent by registered or  
6           certified mail to the applicable of the following  
7           addresses:

8                           Southern California Edison Company  
9                           c/o Secretary  
10                           Post Office Box 351  
11                           Los Angeles, California 90053

12                           San Diego Gas & Electric Company  
13                           c/o President  
14                           Post Office Box 1831  
15                           San Diego, California 92112

16           By notice sent to the other Company, either Edison  
17           or San Diego may designate different persons or different  
18           addresses for the giving of notices hereunder.

19 21. TERM

20           This agreement shall be effective as of October 5,  
21           1967, and shall continue in effect until termination of  
22           the easement for the Plant Site, or such earlier date  
23           as the Companies may agree to cease operation of Unit 1.  
24           The San Onofre Operating Agreement is hereby superseded  
25           as of October 5, 1967.

26           IN WITNESS WHEREOF, the Companies have caused  
          this agreement to be executed in duplicate on their  
          behalf.

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SAN DIEGO GAS & ELECTRIC COMPANY

ATTEST:

By Em J. Ryan

J. K. Adams

SOUTHERN CALIFORNIA EDISON COMPANY

ATTEST:

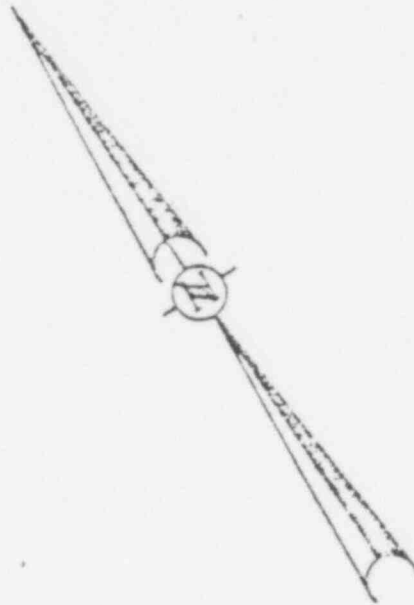
By William P. ...

SENIOR VICE PRESIDENT

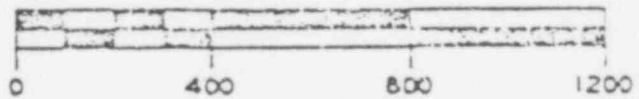
E. Lester

Secretary

610 040



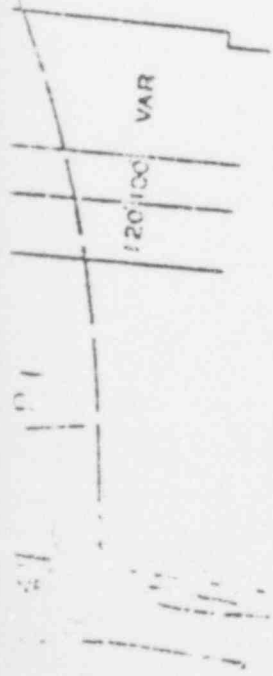
SCALE IN FEET

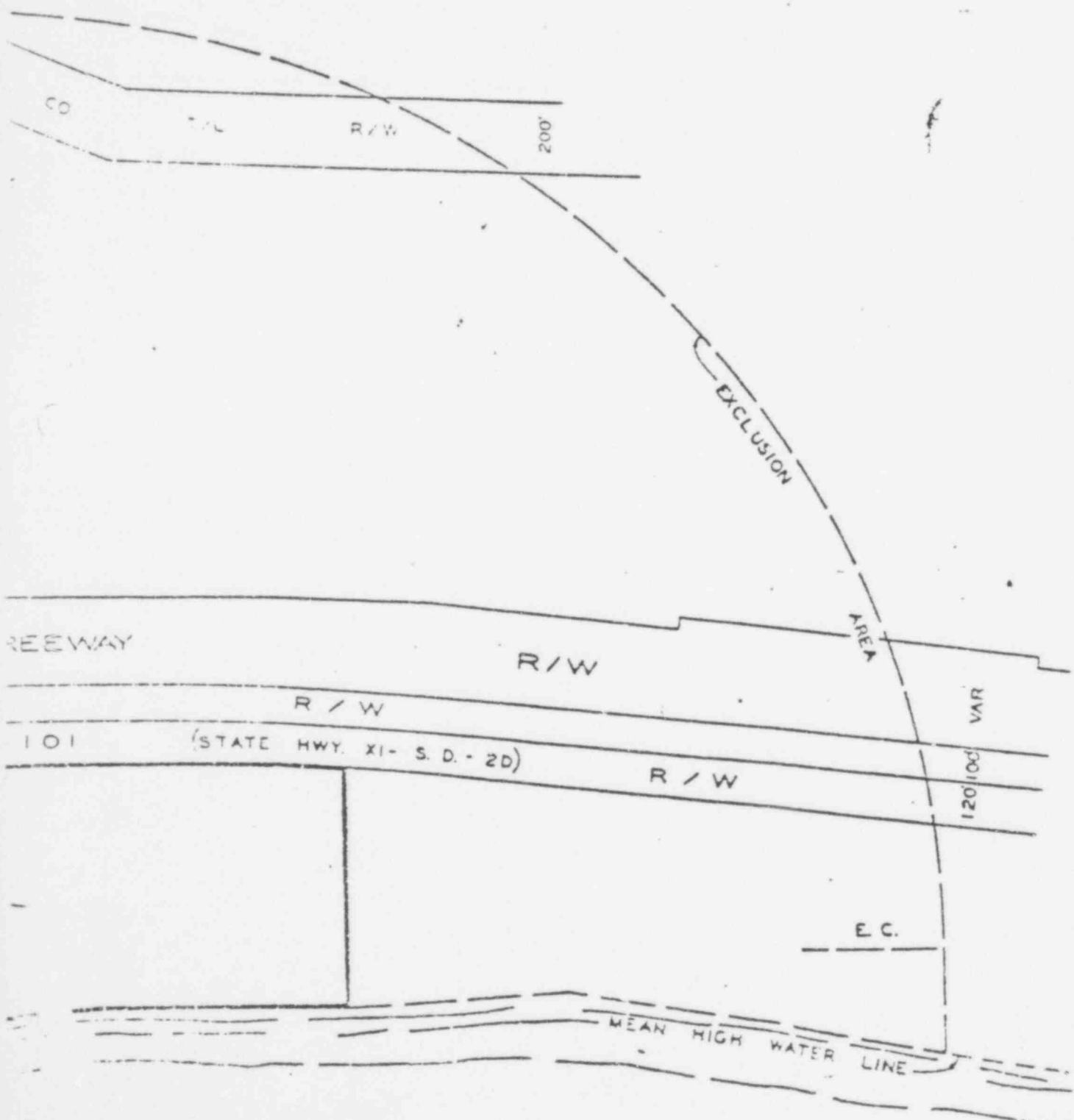


# EXHIBIT "A"

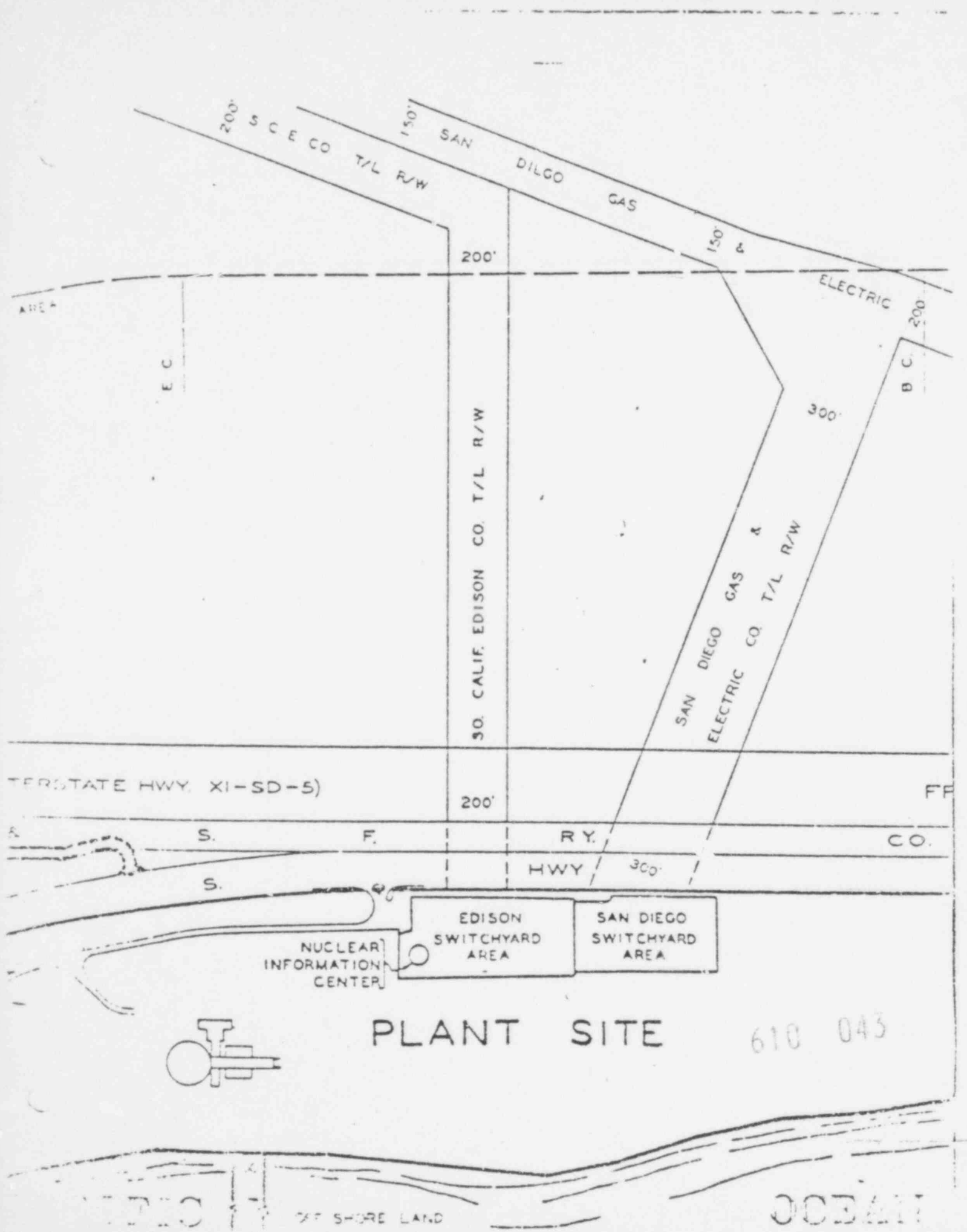
610 041

SAN ONOFRE NUCLEAR GENERATING STATION  
 MAP SHOWING LOCATIONS OF THE PLANT SITE,  
 NUCLEAR INFORMATION CENTER, EDISON SWITCHYARD  
 AREA, SAN DIEGO SWITCHYARD AREA,  
 TRANSMISSION LINES, ACCESS ROAD, RAILROAD SPUR  
 TRACK, OFF SHORE LAND, AND EXCLUSION AREA WITHIN  
 THE MARINE CORPS BASE, CAMP PENDLETON, CALIFORNIA,  
 SAN DIEGO COUNTY





610 042



AREA A

E.C.

200'

150'

ELECTRIC

B.C. 200'

300'

30. CALIF. EDISON CO. T/L R/W

SAN DIEGO GAS & ELECTRIC CO. T/L R/W

INTERSTATE HWY. XI-SD-5)

200'

FR

S. F. RY. CO.

HWY 300'

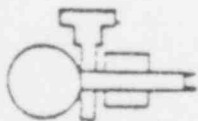
NUCLEAR INFORMATION CENTER

EDISON SWITCHYARD AREA

SAN DIEGO SWITCHYARD AREA

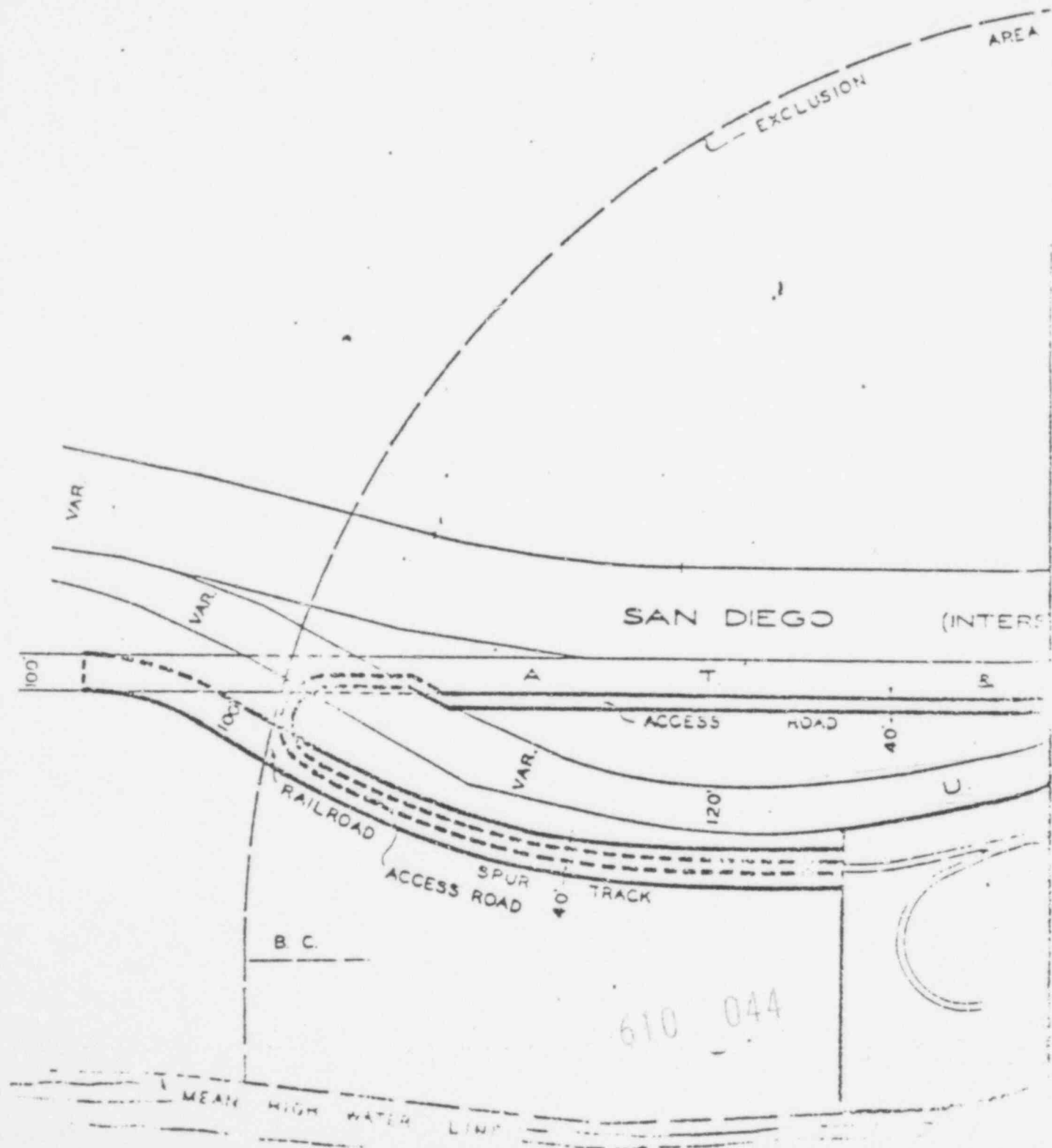
PLANT SITE

610 043



OFF SHORE LAND

OCEAN



EXCLUSION AREA

SAN DIEGO (INTERSECTION)

ACCESS ROAD

RAILROAD

SPUR TRACK  
ACCESS ROAD

B.C.

MEAN HIGH WATER LINE

610 044

EXHIBIT B

ALLOCATION OF OVERHEAD EXPENSES

Overhead expenses incurred by Edison which are allocable to the San Onofre Nuclear Generating Station are comprised of the following:

1. All of the following expenses incurred at the San Onofre Nuclear Generating Station:
  - a) The salaries and expenses of the Station Chief and his supervisory, administrative, engineering, and clerical and accounting staff assigned to the San Onofre Nuclear Generating Station;
  - b) Stationery and office supplies expenses;
  - c) The payroll and other costs incurred in processing grievances;
  - d) The payroll and other costs incurred in attending job training meetings by employees assigned to the San Onofre Nuclear Generating Station;
  - e) Miscellaneous overhead expenses not assignable to other functions of the San Onofre Nuclear Generating Station.
  
2. A portion of the following expenses incurred in Edison's Steam Generation Division:
  - a) The salaries and expenses of the Superintendent of Steam Generation and his supervisory, administrative, engineering, and clerical and accounting staff;
  - b) Stationery and office supplies expenses;
  - c) A portion (which is applicable to the Steam Generation Division) of the payroll and other costs incurred in the operation of Edison's operators' training school and the salaries and expenses of Steam Generation Division personnel while attending such school;



- d) Miscellaneous overhead expenses not assignable to other functions of the Steam Generation Division.

Such portion shall be determined by multiplying the total of such salaries and expenses by a ratio, the numerator of which is the total payroll for the San Onofre Nuclear Generating Station and the denominator of which is the total payroll supervised by the Superintendent of Steam Generation and his staff.

- 3. A portion of the following expenses incurred in Edison's Power Supply Department:

- a) The salaries and expenses of the Manager of Power Supply and the Superintendent of System Operation and their supervisory, administrative, engineering, and clerical and accounting staffs, but excluding system dispatchers;
- b) Stationery and office supplies expenses;
- c) Expenses (but not payroll costs) incurred in attending certain conventions and committee meetings by Power Supply Department personnel;
- d) Miscellaneous overhead costs not assignable to other functions of the Power Supply Department.

Such portion shall be determined by multiplying the total of such salaries and expenses by a ratio, the numerator of which is the total payroll for the San Onofre Nuclear Generating Station and the denominator of which is the total payroll supervised by the Manager of Power Supply and his staff.

- 4. The overhead expenses of Edison's Steam Maintenance Division will be charged to the San Onofre Nuclear Generating Station only to the extent that Steam Maintenance Division personnel are employed at the San Onofre Nuclear Generating Station.

The total of such allocable overhead expenses shall be allocated and charged to the appropriate FPC electric plant and operation and maintenance expense accounts for Unit 1 and the Edison Switchyard on the basis of the direct Edison labor charges to such accounts.

EXHIBIT C  
PAYROLL TAX RATIO

The Payroll Tax Ratio shall be determined in the following manner using, where indicated, expenses reported in the Annual Report of Edison to the Federal Power Commission ("FPC Form 1"):

Payroll Taxes for 1967

Payroll taxes applicable to labor charged to operation and maintenance, construction, and other accounts, per FPC Form 1, Page 352:

|          |                    |
|----------|--------------------|
| P.I.C.A. | \$2,711,186        |
| H.I.T.   | 347,596            |
| F.U.T.A. | 134,311            |
| S.U.I.   | <u>755,494</u>     |
| Total    | <u>\$3,948,587</u> |

Labor Base for 1967

Total labor charged to operation and maintenance, construction, and other accounts, per FPC Form 1, Page 356:

\$107,586,271

$$\text{Payroll Tax Ratio for 1967} = \frac{\$ 3,948,587}{\$107,586,271} = \underline{0.0367}$$

EXHIBIT D

WORKMEN'S COMPENSATION RATIO

The Workmen's Compensation Ratio, to be applied as shown in Exhibits E, F, and G, shall be determined in the following manner using, where indicated, expenses reported in the Annual Report of Edison to the Federal Power Commission ("FPC Form 1"):

Workmen's Compensation Expenses for 1967 (Not Capitalized)

Employee injuries expenses, per FPC Form 1, Page 226:

|   |               |            |
|---|---------------|------------|
| Disability Allowance and<br>Compensation - Employees .. | \$270,298     |            |
| Medical Expenses .....                                  | 91,662        |            |
| First Aid Kits .....                                    | <u>63,531</u> |            |
|   |               | \$ 425,491 |

|   |              |
|---|--------------|
| Portion of liability insurance premium<br>allocable to Workmen's Compensation coverage: | <u>8,507</u> |
|---|--------------|

|  |            |
|--|------------|
| Total Workmen's Compensation expenses: | \$ 433,998 |
|--|------------|

|   |             |
|---|-------------|
| Less the amount of such expenses which have<br>been shared by the Companies pursuant to<br>Sections 10 and 16 hereof: | <u>\$ 0</u> |
|---|-------------|

|                               |                   |
|-------------------------------|-------------------|
| Net expenses to be allocated: | <u>\$ 433,998</u> |
|-------------------------------|-------------------|

Labor Base for 1967

|  |              |
|--|--------------|
| Total labor charged to operation and<br>maintenance, per FPC Form 1, Page 356: | \$72,770,976 |
|--|--------------|

|   |                |
|---|----------------|
| Total labor charged to other accounts,<br>per FPC Form 1, Page 356: | <u>979,429</u> |
|---|----------------|

|                   |              |
|-------------------|--------------|
| Total labor base: | \$73,750,405 |
|-------------------|--------------|

|   |                |
|---|----------------|
| Less the amount of labor charged to the<br>operation and maintenance of Unit 1 and<br>the Station Site pursuant to Section 7.1<br>hereof: | <u>166,524</u> |
|---|----------------|

|                 |                     |
|-----------------|---------------------|
| Net labor base: | <u>\$73,583,881</u> |
|-----------------|---------------------|

610 048 -

|                                |                     |   |               |
|--------------------------------|---------------------|---|---------------|
| Workmen's Compensation Ratio = | \$ 433,998          | = | 0.0019        |
|                                | <u>\$73,583,881</u> |   | <u>0.0019</u> |

EXHIBIT E  
BENEFITS RATIO

The Benefits Ratio shall be determined in the following manner using, where indicated, expenses reported in the Annual Report of Edison to the Federal Power Commission ("FPC Form 1"):

Pensions and Benefits Expenses for 1967

|   | <u>Labor*</u> | <u>Total</u>  |
|---|---------------|---------------|
| Employee pensions and benefits charged to Account 926, per FPC Form 1, Page 419:                              | \$1,051,144   | \$ 10,522,097 |
| Plus employee pensions and benefits capitalized:  | -             | 3,516,521     |
| Sub-total   | \$1,051,144   | \$ 14,038,618 |
| Payroll taxes @ 3.67% of labor  |               | 38,577        |
| Workmen's Compensation @ 0.59% of labor   |               | 6,202         |
| Total pensions and benefits expenses:   |               | \$ 14,083,397 |
| <br><u>Labor Base for 1967</u>  |               |               |
| Total labor charged to operation and maintenance, construction, and other accounts, per FPC Form 1, Page 356: |               | \$107,586,271 |
| Less labor charged to FPC Account 926:  |               | 1,051,144     |
| Net labor base:   |               | \$106,535,127 |

$$\text{Benefits Ratio for 1967} = \frac{\$ 14,083,397}{\$106,535,127} = \underline{\underline{0.1322}}$$

\* Includes direct and indirect labor

EXHIBIT F

A & G RATIO

The A & G Ratio shall be determined in the following manner using, where indicated, expenses reported in the Annual Report of Edison to the Federal Power Commission ("FPC Form 1"):

Administrative and General Expenses Allocable to Operation and Maintenance for 1967 (per FPC Form 1, Page 419)

|  | <u>Labor*</u>       | <u>Total</u>        |
|--|---------------------|---------------------|
| A/C 920 Administrative and general salaries:   | \$10,565,273        | \$10,565,273        |
| 921 Office supplies and expenses:  | <u>216,355</u>      | <u>3,685,771</u>    |
| Total Accounts 920 and 921:  | <u>\$10,781,628</u> | <u>\$14,251,044</u> |
| 0.6308 (See Exhibit H) of Accounts 920 and 921 applicable to operation and maintenance:    | \$ 6,801,051        | \$ 8,995,676        |
| A/C 923 Outside services (see Note 1):   | -                   | 407,443             |
| 932 General maintenance  | <u>1,033,843</u>    | <u>1,784,891</u>    |
| Sub-total  | \$ 7,834,894        | \$11,188,113        |
| Payroll taxes @ 3.67% of labor   |                     | \$ 287,541          |
| Workmen's Compensation @ 0.59% of labor  |                     | 46,226              |
| Pensions and benefits @ 13.22% of labor  |                     | <u>1,035,773</u>    |
| Total A & G expense allocable to operation and maintenance:                                |                     | <u>\$12,557,653</u> |
| <u>Operation and Maintenance Labor Base for 1967</u>                                       |                     |                     |
| Total labor charged to operation and maintenance accounts, per FPC Form 1, Page 356:       |                     | \$72,770,976        |
| Less the amount of such labor charged to administrative and general expense accounts:      |                     |                     |
| Direct labor, per FPC Form 1, Page 355:  | \$12,891,459        |                     |
| Indirect labor included in the amount reported in FPC Form 1, Page 356, Column C, Line 92: | <u>392,065</u>      |                     |
| Total  |                     | <u>13,283,524</u>   |
| Net operation and maintenance labor base:  |                     | <u>\$59,487,452</u> |

$$\text{A \& G Ratio for 1967} = \frac{\$12,557,653}{\$59,487,452} = \underline{\underline{0.2111}}$$

610 050

Note 1: The amount shown for A/C 923 shall be the amount charged thereto except that it shall not exceed the greater of (a) \$500,000 or (b) 150% of the average of the charged to A/C 923 for the two most recent preceding years.

EXHIBIT G

CAPITAL A & G RATIO

The Capital A & G Ratio shall be determined in the following manner using, where indicated, expenses reported in the Annual Report of Edison to the Federal Power Commission ("FPC Form 1"):

Administrative and General Expenses Allocable to Construction for 1967 (per FPC Form 1, Page 419)

|  | <u>Labor*</u>       | <u>Total</u>        |
|--|---------------------|---------------------|
| A/C 920 Administrative and general salaries:   | \$10,565,273        | \$10,565,273        |
| 921 Office supplies and expenses:  | <u>216,355</u>      | <u>3,695,474</u>    |
| Total Accounts 920 and 921   | <u>\$10,781,628</u> | <u>\$14,260,747</u> |
| 0.3558 (See Exhibit H) of Accounts 920 and 921 applicable to construction:                     | \$ 3,868,448        | \$ 5,116,756        |
| Payroll taxes @ 3.67% of labor   |                     | 141,972             |
| Workmen's Compensation @ 0.59% of labor  |                     | 22,824              |
| Pensions and benefits @ 13.22% of labor  |                     | <u>511,409</u>      |
| Total A & G expense allocable to construction  |                     | \$ 5,792,961        |
| Total pensions and benefits expense allocable to total labor charged to construction accounts: |                     |                     |
| 0.1322 x \$33,835,866** =  |                     | <u>\$ 4,473,101</u> |
| Total A & G plus pensions and benefits expenses allocable to construction:                     |                     | \$10,266,062        |
| Less amount of A & G plus pensions and benefits expenses allocable to contract construction:   |                     |                     |
| 0.01 x \$169,200,000 =   |                     | <u>\$ 1,692,000</u> |
| Remainder of A & G plus pensions and benefits expenses allocable to Edison construction:       |                     | <u>\$ 8,574,062</u> |
| <u>Construction Direct Labor Base for 1967</u>   |                     |                     |
| Total direct labor charged to construction accounts, per FPC Form 1, Page 356:                 |                     | <u>\$20,428,022</u> |

610 051

Capital A & G Ratio for 1967 =  $\frac{\$ 8,574,062}{\$20,428,022} = \underline{\underline{0.4197}}$

\* Includes direct and indirect labor

EXHIBIT H

DETERMINATION OF OPERATION & MAINTENANCE AND CONSTRUCTION  
LABOR RATIOS TO BE USED IN EXHIBITS F & G

Labor Charges for 1967

|  |                     |
|--|---------------------|
| Total labor charged to operation and maintenance accounts, per FPC Form 1, Page 356:       | \$72,770,976        |
| Less the amount of such labor charged to administrative and general expense accounts:      |                     |
| Direct labor, per FPC Form 1, Page 355:  | \$12,891,459        |
| Indirect labor included in the amount reported in FPC Form 1, Page 356, Column C, Line 92: | <u>392,065</u>      |
| Total  | <u>13,283,524</u>   |
| Net labor charged to operation and maintenance accounts:                                   | \$59,487,452        |
| Total labor charged to other accounts, per FPC Form 1, Page 356:                           | 979,429             |
| Total labor charged to construction accounts, per FPC Form 1, Page 356:                    | <u>33,835,866</u>   |
| Total labor base for this computation:   | <u>\$94,302,747</u> |

Ratio of net operation and maintenance labor to total labor: =  $\frac{\$59,487,452}{\$94,302,747}$  = 0.6308

Ratio of construction labor to total labor: =  $\frac{\$33,835,866}{\$94,302,747}$  = 0.3588

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AMENDMENT NO. 1  
TO  
AMENDED SAN ONOFRE OPERATING AGREEMENT

THIS AMENDMENT NO. 1 to the AMENDED SAN ONOFRE OPERATING AGREEMENT is entered into as of the 30<sup>th</sup> day of August, 1971, by and between SAN DIEGO GAS & ELECTRIC COMPANY, a California corporation ("San Diego") and SOUTHERN CALIFORNIA EDISON COMPANY, a California corporation ("Edison"), hereinafter sometimes individually called "Company" and collectively called "Companies."

RECITALS

This Amendment is made with reference to the following facts:

San Diego and Edison entered into the Amended San Onofre Operating Agreement as of July 30, 1970. On the same date San Diego and Edison entered into a letter agreement that modified in part the provisions of Section 16 (Liability) of the Amended San Onofre Operating Agreement.

San Diego and Edison now wish to amend Section 16 and Section 10 of the Amended San Onofre Operating Agreement and to supersede the aforementioned letter agreement as herein-after set forth.

AGREEMENT

The Companies agree as follows:



1 AMENDMENT TO SECTION 16

2 Section 16 of the Amended San Onofre Operating Agreement  
3 is hereby amended to read as follows:

4 16. LIABILITY

5 16.1 As used in this Section 16, the following terms  
6 shall have the following meanings:

7 16.1.1 "Damage" means any loss, damage, cost,  
8 charge or expense resulting from the  
9 ownership, operation, maintenance or use  
10 of Unit 1 or the Station Site, or the per-  
11 formance or non-performance by a Company  
12 or the Companies of any of the San Onofre  
13 Agreements.

14 16.1.2 "Nuclear Incident" means a nuclear inci-  
15 dent as defined in Section 11g of the  
16 Atomic Energy Act of 1954, as amended.

17 16.1.3 "Uninsured Damage" means Damage not paid  
18 for by Unit 1 Insurance.

19 16.2 Except as permitted under Section 16.3 hereof,  
20 neither Company shall be liable to the other Com-  
21 pany for Uninsured Damage resulting from a Nuclear  
22 Incident.

23 16.3 Neither Company, its directors, officers or em-  
24 ployees shall be obligated to discharge any liabil-  
25 ity to the other Company in excess of \$2,000,000  
26 for any single occurrence for any direct, indirect

1 or consequential Uninsured Damage of any kind or  
2 nature suffered by the other Company, resulting  
3 from Willful Action and resulting from or arising  
4 out of a Nuclear Incident. Each Company expressly  
5 releases the other Company, its directors,  
6 officers and employees from any such liability in  
7 excess of \$2,000,000 per occurrence and from any  
8 judgment in excess of \$2,000,000 per occurrence  
9 obtained against a Company, its directors,  
10 officers or employees, for any such liability.  
11 Neither Company shall execute, levy or otherwise  
12 enforce such a judgment, or record or effect a  
13 judgment lien, against the other Company, its  
14 directors, officers or employees for any part of  
15 such judgment in excess of \$2,000,000 per  
16 occurrence.

17 16.4 Subject to Sections 16.2 and 16.3 hereof and  
18 except for Uninsured Damage resulting from Willful  
19 Action (and not resulting from or arising out of  
20 a Nuclear Incident), neither Company, its  
21 directors, officers or employees shall be obligated  
22 to discharge any liability to the other Company,  
23 for any direct, indirect or consequential Uninsured  
24 Damage of any kind or nature suffered by the other  
25 Company, whether or not resulting from the negli-  
26 gence of a Company, its directors, officers,

1 employees or any other person or entity whose  
2 negligence would be imputed to a Company. Subject  
3 to the exceptions contained in this Section 16.4,  
4 each Company expressly releases the other Company,  
5 its directors, officers and employees from any  
6 such liability. Neither Company shall execute,  
7 levy or otherwise enforce a judgment for such  
8 liability, including recording or effecting a  
9 judgment lien, against the other Company, its  
10 directors, officers or employees.

11 16.5 Subject to Sections 16.2 and 16.3 hereof and  
12 except for liability for Uninsured Damage resulting  
13 from Willful Action (and not resulting from or  
14 arising out of a Nuclear Incident) and except as  
15 provided in Sections 16.6 and 16.7 hereof, Edison  
16 shall pay eighty percent (80%) and San Diego shall  
17 pay twenty percent (20%) of:

18 16.5.1 The costs and expenses of discharging  
19 liability of one or both of the Companies  
20 for any direct, indirect or consequential  
21 Uninsured Damage of any kind or nature  
22 suffered by any party other than a  
23 Company, whether or not resulting from the  
24 negligence of a Company, its directors,  
25 officers and employees or any other person  
26 or entity whose negligence would be

1 imputed to a Company; and

2 16.5.2 The costs and expenses incurred in  
3 settlement of injuries and damages  
4 claims, including attorneys' fees and the  
5 cost of labor and related supplies and  
6 expenses incurred in injuries and damages  
7 activities (all as referred to in FPC  
8 Account 925) resulting from or arising  
9 out of such liability.

10 16.6 Except for liability for Uninsured Damage result-  
11 ing from Willful Action, either Company whose  
12 ultimate consumer shall make a claim or demand, or  
13 bring an action for any damage (including death  
14 or injury) arising out of electric service to such  
15 ultimate consumer shall indemnify and hold harm-  
16 less the other Company, its directors, officers  
17 and employees from and against any claim, demand  
18 or liability for such damage. The term "ultimate  
19 consumer" means an electric consumer to whom no  
20 electric power or energy is delivered for resale.

21 16.7 Except for liability for Uninsured Damage (includ-  
22 ing death or injury) resulting from Willful Action,  
23 each Company shall bear the total cost of dis-  
24 charging all legal liability imposed upon it or the  
25 other Company, including attorneys' fees and other  
26 associated costs, arising out of Workmen's

1 Compensation claims, or employers' liability  
2 claims, brought by its employees; provided that  
3 the cost of discharging such liability, including  
4 attorneys' fees and other associated costs,  
5 arising out of such Workmen's Compensation claims  
6 brought by Edison personnel whose labor expenses  
7 are charged or allocated to the operation and  
8 maintenance of Unit 1 and the Station Site  
9 pursuant to Section 7.1 hereof, shall be shared  
10 eighty percent (80%) by Edison and twenty percent  
11 (20%) by San Diego.

12 AMENDMENT TO SECTION 10

13 Section 10.5 of the Amended San Onofre Operating Agree-  
14 ment is hereby amended to read as follows:

15 10.5 Edison shall investigate, adjust and settle claims  
16 asserted by any party other than a Company against  
17 the Companies or either of them, which are claims  
18 of the type referred to in Section 16.5 hereof.  
19 Edison shall obtain the prior consent of the  
20 Board of Review members before agreeing to a  
21 settlement of any claim or combination of claims  
22 exceeding \$100,000 arising out of the same trans-  
23 action or event and not covered by Unit 1  
24 Insurance. At the request of Edison, San Diego  
25 shall assist in the investigation, adjustment and  
26 settlement of any such claims. Each Company shall

1 investigate, adjust and settle claims asserted by  
2 any of its ultimate consumers, which are claims of  
3 the type referred to in Section 16.6 hereof.

4 SUPERSIDE LETTER AGREEMENT

5 This Amendment supersedes the letter agreement of July 30,  
6 1970 between the Companies that modified in part the provisions  
7 of Section 16 of the Amended San Onofre Operating Agreement.

8 TERM

9 The term of this Amendment shall be coincident with the  
10 term of the Amended San Onofre Operating Agreement.

11 IN WITNESS WHEREOF, the Companies have caused this Amend-  
12 ment to be executed in duplicate on their behalf.

13 SAN DIEGO GAS & ELECTRIC COMPANY,

14 ATTEST:

15 By W. P. [Signature]

16 [Signature]

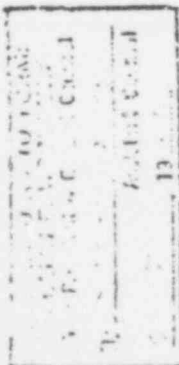
17 SOUTHERN CALIFORNIA EDISON COMPANY

18 ATTEST:

19 By J. P. [Signature]

20 [Signature]

21 ASSISTANT SECRETARY



PERMITS, LICENSES, AND MATERIAL, EQUIPMENT AND SERVICE  
SUPPLIER'S AGREEMENTS WHICH MAY REQUIRE  
AMENDMENT OR ASSIGNMENT

---

1. American Society for Mechanical Engineering
  - A. Owner's Certificate of Authorization
2. Army Corps of Engineers
  - A. Offshore Conduit Construction Permit
  - B. Sand Disposal Permit
  - C. Permit Assigned Not Applicable
  - D. Marine Monitoring Buoys (12)
  - E. Del Mar Boat Dock and Grounding Pad
3. Nuclear Regulatory Commission (Formerly A.E.C.)
  - A. Construction Permit
  - B. Operating License
  - C. Special Nuclear Material License
  - D. Uranium Enrichment Agreement
  - E. Contaminated Equipment License
4. Coastal Zone Commission
  - A. Coastal Zone Commission Construction Permit No. 183-73
  - B. Guarantee Agreement
  - C. Trust Fund Agreement and Marine Review Committee
  - D. Site Drainage (Berm)
5. U.S. Coast Guard
  - A. Aid to Navigation Agreement
  - B. Buoys - Sand Disposal

EXHIBIT " J "

610 060

6. Environmental Protection Agency
  - A. Concrete Batch Plant Approval to Construct
  - B. Operating Permit - Batch Plant
  - C. Auxiliary Boiler Construction/Operating Permit
  - D. Other Ancillary Equipment That Could Emit Air Contaminants
  - E. NPDES #003395 (Plant Operating)
  - F. NPDES #CA0107328 (Construction Dewatering)
7. U.S. Marine Corps
  - A. Construction Parking
  - B. Grant Easement
  - C. Plant and Mesa Site License NF(R)22928
    - (1) Access Road
    - (2) Parcels: A, B, C, D, E, F, G, Conduit Haul Road, and Evap. Pond
    - (3) Heavy Haul Road and Boat Dock
  - D. Jar Mesa
    - (1) Temporary PKS Waterline - NF(R)23306
    - (2) Extension of Permit
  - E. Sand Disposal
  - F. Jobsite Security Plan
  - G. Telephone Line Relocation
  - H. Temporary Easement for 220 kV Lines
  - I. T/S Construction Laydown Area
  - J. Mutual Aid Agreement
  - K. Onshore Tracer Study Agreement

EXHIBIT "   J   "



8. Pacific Telephone and Telegraph Company
  - A. Fill Over Easement
  - B. Relocation of U.S.M.C. Cable into PT&T Easement
  - C. Construction Parking
  - D. Duct Beam and Fireline Crossing
9. Public Utilities Commission
  - A. Authorization for Financial Agreement
  - B. Certificate of Convenience and Necessity
  - C. Certificate of Convenience and Necessity for Transmission Lines
10. City of San Clemente
  - A. Temporary Service Agreement
11. San Diego County - A.P.C.D.
  - A. Auxiliary Boiler Construction/Operating Permit
  - B. Batch Plant Construction
  - C. Batch Plant Operating
12. San Diego Water Quality Control Board
  - A. Dewatering Discharge 74-4 (NPDES CA0107328)
  - B. Sand Disposal
    - (1) 70-R42
    - (2) Addendum #1
    - (3) Monitoring and Reporting Program #71-6
  - C. Operation Order #76-21 (NPDES CA0003395)
13. Santa Fe Railway
  - A. Haul Road Overcrossing License
  - B. Overhead Wire Crossing Agreement

EXHIBIT " J "

610 062

14. Southern California Gas
  - A. Highway 101 Relocation Permit
  - B. Off-Highway Haul Route Permit
  - C. Temporary Information Center
15. State Department of Parks and Recreation
  - A. Access Road Agreement
  - B. Construction Parking
  - C. Temporary Waterline
  - D. Highway 101 Realignment
  - E. Main Plant Access
  - F. Signalization of Highway 101 - Main Plant Access Lighting
  - G. Circ. Conduit Haul Road
  - H. Signal at Highway 101 and Jap Mesa Haul Road
  - I. AMERON Batch Plant Evaporation Pond
  - J. Heavy Haul Road
16. State Department of Public Health
  - A. Radiological Monitoring Program Approval
  - B. Source Material License (RA 226)
  - C. Contaminated Equipment License
17. State Department of Transportation
  - A. Construction Parking and Hopper (1174-E-762, 668)
  - B. Relocate Power Pole (1173-U-743-943)  
Install Guard Rail (1171-E-761-930)  
String 220 kV Across I5 (1170-U-782-727)  
Temporary 138 kV and 220 kV Across I5 (1170-U-782-701)
  - C. Jap Mesa Road Access (1173-E-762-565)

EXHIBIT "   J   "

610 063

- D. Main Plant
    - (1) Access
    - (2) Rider to Move Road (1173-E-762-565)
  - E. Off-Highway Haul Route (1173-E-762-565)
  - F. Offsite Drainage Structure Permit (1174-E-762-633)
  - G. U.S. 101 Realignment (1174-E-762-633)
  - H. Temporary I5 Crossing
  - I. Duct Beam and Fireline Installation
  - J. Floor Protection Beam
18. State Lands Commission
- A. Buoys - Sand Disposal (Marine Monitoring - 3 Buoys)
  - B. Offshore Easement
    - (1) Construction Permit
    - (2) Conduit Site
  - C. Sand Disposal
    - (1) Work Area
    - (2) Extension of Permits
19. State Resources Agency
- A. Siting
    - (1) Agreement and Amendment
    - (2) Amendment to Resources Agreement
20. State Water Resources Control Board
- A. Sand Disposal Certificate of Conformance #70-12
  - B. Plant Operation Certificate of Conformance #72-28

EXHIBIT "   J   "

- H. Heavy Haul Contract between Edison and Rigging International
- I. Off-Shore Circulating Water System Contract between Edison and Guy F. Atkinson Company

EXHIBIT " J "

EDISON-RIVERSIDE SAN ONOFRE  
TRANSMISSION SERVICE AGREEMENT

1  
2  
3 1. PARTIES: The Parties to this agreement are the City  
4 of Riverside, a municipal corporation of the State of  
5 California, and the Southern California Edison Company,  
6 a California corporation.

7 2. RECITALS: This agreement is made with reference to  
8 the following facts, among others:

9 2.1 On \_\_\_\_\_, the Parties entered  
10 into the Integrated Operations Agreement providing  
11 for integrated operation of their resources.

12 2.2 On \_\_\_\_\_, Edison, Riverside, the  
13 City of Anaheim, and San Diego Gas & Electric  
14 Company entered into the Participation Agreement under  
15 which Riverside has acquired a 1.79 percent ownership  
16 interest in Unit 2 and Unit 3 and a corresponding  
17 entitlement in the capacity and energy from such units.

18 2.3 On \_\_\_\_\_, the Parties entered  
19 into the Supplemental Agreement for the Integration  
20 of Riverside's Entitlements in San Onofre Unit 2 and  
21 Unit 3, under which Edison has agreed to integrate  
22 Riverside's Entitlement in Unit 2 and Unit 3 in  
23 accordance with the Integrated Operations Agreement.

24 2.4 Riverside desires to have its energy from  
25 Unit 2 and Unit 3 transmitted to the Point of Delivery,  
26 and Edison is willing to transmit such energy for

1 Riverside as provided hereunder.

2 3. AGREEMENT: The Parties agree as follows:

3 4. DEFINITIONS: The following terms, when used herein  
4 with initial capitalization (whether in the singular or  
5 plural), shall have the meaning specified:

6 4.1 Authorized Representative: Authorized  
7 Representative as defined in the Integrated Operations  
8 Agreement.

9 4.2 Circuit Mileage: Circuit Mileage as used in  
10 Contract Rate TN.

11 4.3 Commission: Federal Energy Regulatory  
12 Commission or successor.

13 4.4 Contract Capacity: Contract Capacity as used  
14 in Contract Rate TN, Contract Rate TP, and Vista-  
15 Riverside Contract Rate TP.

16 4.5 Contract Rate TN: A rate schedule designated  
17 Network Transmission Service, Contract Rate TN, filed  
18 with the Commission as part of a submittal by Edison  
19 in Docket E-8160 designated Southern California Edison  
20 Company, FPC Electric Tariff, Original Volume No. 1,  
21 or any superseding rate schedule.

22 4.6 Contract Rate TP: A rate schedule designated  
23 Point-to-Point Transmission Service, Contract Rate TP,  
24 filed with the Commission as part of a submittal by  
25 Edison in Docket E-8160 designated Southern California  
26 Edison Company, FPC Electric Tariff, Original Volume

1 No. 1, or any superseding rate schedule.

2 4.7 Date of Firm Operation: Date of Firm Operation  
3 as defined in the Integrated Operations Agreement.

4 4.8 Edison: Southern California Edison Company.

5 4.9 Edison's 220 kV Buses: The 220 kV buses in  
6 the Edison Switchyard.

7 4.10 Edison Switchyard: Edison Switchyard as  
8 defined in the Participation Agreement.

9 4.11 Integrated Operations Agreement: The  
10 Integrated Operations Agreement between Riverside and  
11 Edison, dated \_\_\_\_\_.

12 4.12 Interconnection Facilities: Interconnection  
13 Facilities as defined in the Participation Agreement.

14 4.13 Participation Agreement: The San Onofre  
15 Units 2 and 3 Participation Agreement among Edison,  
16 San Diego Gas & Electric Company, City of Anaheim, and  
17 Riverside dated \_\_\_\_\_.

18 4.14 Party: Edison or Riverside.

19 4.15 Point of Delivery: The point where the  
20 electrical conductors of Edison connect with the  
21 electrical conductors of Riverside at the city limits  
22 of Riverside.

23 4.16 Rated Capability: Rated Capability as  
24 defined in the Integrated Operations Agreement.

25 4.17 Riverside: City of Riverside.

26 4.18 San Diego Switchyard: San Diego Switchyard

1 as defined in the Participation Agreement.

2 4.19 Settlement Agreement: Settlement Agreement  
3 as defined in the Integrated Operations Agreement.

4 4.20 Uncontrollable Force: Uncontrollable Force  
5 as defined in the Integrated Operations Agreement.

6 4.21 Unit 2: Unit 2 as defined in the Participation  
7 Agreement.

8 4.22 Unit 3: Unit 3 as defined in the Participation  
9 Agreement.

10 4.23 Unit 2 Points of Attachment: The four points  
11 where the jointly-owned 220 kV switchrack facilities  
12 which are part of Unit 2 are connected to the Edison-  
13 owned 220 kV disconnect switches in the Edison Switchyard,  
14 as indicated on Exhibit 1, attached hereto.

15 4.24 Unit 3 Points of Attachment: The four points  
16 where the jointly-owned 220 kV switchrack facilities  
17 which are part of Unit 3 are connected to the San Diego-  
18 owned 220 kV disconnect switches in the San Diego  
19 Switchyard, as indicated on Exhibit 1, attached hereto.

20 4.25 Vista-Riverside Contract Rate TP: A rate  
21 schedule to be filed by Edison with the Commission  
22 providing for point-to-point transmission service  
23 between Edison's 220 kV buses at Vista Substation and  
24 the Point of Delivery. The terms and conditions of  
25 said rate schedule shall be consistent with the terms  
26 and conditions of Contract Rate TP.



1 5. EFFECTIVE DATE, TERM, AND TERMINATION:

2 5.1 This agreement shall become effective on the  
3 date following execution by both Parties when accepted  
4 for filing by the Commission, but if upon such filing  
5 the Commission enters upon a hearing to determine  
6 whether this agreement is just and reasonable, it shall  
7 not become effective until the date when an order no  
8 longer subject to judicial review has been issued by  
9 the Commission determining this agreement to be just  
10 and reasonable without new conditions unacceptable to  
11 either Party.

12 5.2 This agreement shall remain in effect for  
13 50 years, except that it shall terminate sooner upon  
14 the occurrence of any of the following:

15 5.2.1 Written agreement of the Parties to  
16 terminate this agreement,

17 5.2.2 Termination of the Integrated Operations  
18 Agreement, or

19 5.2.3 Termination of Unit 2 and Unit 3  
20 ownership or operating agreements.

21 5.3 If notice of termination of the Integrated  
22 Operations Agreement is given by either Party, the  
23 Parties shall take actions similar to those described  
24 in Section 4.3 of the Integrated Operations Agreement to  
25 develop a new arrangement for furnishing the services  
26 referred to in the Settlement Agreement which are

1 provided for in this agreement.

2 6. TRANSMISSION SERVICE:

3 6.1 Except as modified herein, transmission  
4 service hereunder shall be provided in accordance with  
5 Contract Rate TN, Contract Rate TP, and Vista-Riverside  
6 Contract Rate TP. Edison anticipates that, prior to  
7 commencement of service hereunder, Edison will have  
8 filed for changes in Contract Rate TN, Contract Rate TP,  
9 and Vista-Riverside Contract Rate TP to, among other  
10 things, update charges therein. Riverside expressly  
11 reserves the right to oppose such filings.

12 6.2 Service hereunder shall commence on the Date  
13 of Firm Operation for Unit 2. Contract Capacity shall  
14 then be 19.69 megawatts, the expected maximum Rated  
15 Capability for Unit 2. On the Date of Firm Operation  
16 for Unit 3, Contract Capacity shall be increased by  
17 19.69 megawatts, the expected maximum Rated Capability  
18 for Unit 3.

19 6.3 Edison shall accept deliveries of Riverside's  
20 Unit 2 and Unit 3 energy at Edison's 220-kV Buses at  
21 rates of delivery not exceeding Contract Capacity, and  
22 shall simultaneously deliver a like amount of energy,  
23 less transmission losses, to Riverside at the Point of  
24 Delivery.

25 6.4 During times when Riverside may be required to  
26 provide its share of the auxiliary power requirement

1 at San Onofre, Edison shall accept deliveries of energy  
2 from Riverside at the Point of Delivery, and simultaneously  
3 deliver a like amount of energy, less transmission losses,  
4 to Edison's 220-kv Buses, to enable Riverside to meet  
5 such requirements.

6 6.5 Edison shall provide connection services as  
7 required by Contract Rate TN to Riverside by transmitting  
8 (1) Riverside's share of Unit 2 output and auxiliary power  
9 requirements between the Unit 2 Points of Attachment  
10 and Edison's 220-kV Buses, and (2) Riverside's share of  
11 Unit 3 output and auxiliary power requirements between  
12 the Unit 3 Points of Attachment and Edison's 220-kV Buses.

13 6.6 No new facilities as covered by Special  
14 Condition No. 5 of Contract Rate TN or Special Condition  
15 No. 3 of Contract Rate TP shall be necessary to provide  
16 service hereunder.

17 6.7 Edison reserves the right to temporarily  
18 interrupt or curtail service hereunder (1) upon  
19 reasonable advance notice to Riverside to make repairs,  
20 replacements, or modifications or to perform  
21 maintenance work, all for the purpose of maintaining  
22 continuity of service, (2) without notice to Riverside  
23 if such interruption or curtailment is because of an  
24 Uncontrollable Force. Such curtailment may be related  
25 to implementation of mutual load shedding arrangements  
26 agreed to between Riverside and Edison.

1 7. CHARGES AND TRANSMISSION LOSSES:

2 7.1 For the services provided under Section 6.3,  
3 charges will be made in accordance with Sections 7.1.1  
4 and 7.1.2. No additional charge shall be made for the  
5 service provided under Section 6.4.

6 7.1.1 For service between Edison's 220 kV  
7 Buses and Edison's Vista Substation 220 kV buses,  
8 charges shall be made in accordance with the rates set  
9 forth in Contract Rate TN. Circuit Mileage is hereby  
10 agreed to be 69.6 miles initially and subject to change  
11 in accordance with Contract Rate TN by written agreement  
12 of the Authorized Representatives.

13 7.1.2 For service between Edison's Vista  
14 Substation 220 kV buses and the Point of Delivery,  
15 charges shall be as set forth in Vista-Riverside Contract  
16 Rate TP.

17 7.2 For the connection services provided under  
18 Section 6.5, the annual charge for Unit 2 shall be  
19 \$740 and the annual charge for Unit 3 shall be \$2970.

20 7.3 Transmission losses referred to in Sections  
21 6.3 and 6.4 shall be the sum of (1) the losses  
22 determined in accordance with the rates set forth in  
23 Contract Rate TN and using the Circuit Mileage agreed  
24 to in Section 7.1, and (2) losses set forth in Vista-  
25 Riverside Contract Rate TP.

26 7.4 Notwithstanding any other provision of this

1 agreement Edison shall have the right in furnishing  
2 transmission service hereunder to file with the  
3 Commission for changes in rates, charges, classifi-  
4 cation, or service, or any rule, regulation or  
5 contract relating thereto, as set forth in Section 21  
6 of the Integrated Operations Agreement.

7 8. BILLING AND PAYMENT:

8 8.1 Prior to the fifteenth day of December, Edison  
9 shall render a bill to Riverside for services to be  
10 provided hereunder during the following calendar year.  
11 One-twelfth of such annual charges shall be due and  
12 payable by Riverside on the fifteenth day of each month.  
13 The bill for a partial year's service shall be rendered  
14 at least fifteen days prior to the commencement of  
15 service, and equal monthly payments shall be made during  
16 such partial year.

17 8.2 Payments which are not made in full by  
18 Riverside by said due dates, by placing payment in the  
19 mail properly addressed with postage prepaid, shall  
20 thereafter accrue interest at 10 percent per annum of  
21 the unpaid balance prorated by days until payment is  
22 made, provided, that in no event shall such interest  
23 rate exceed the maximum rate permitted by law  
24 applicable to this agreement.

25 9. INTEGRATION AGREEMENT PROVISIONS: This agreement is  
26 an Integration Agreement as defined in the Integrated

1 Operations Agreement. Therefore, the provisions of  
2 that agreement covering liability, arbitration,  
3 regulatory authority, uncontrollable forces, governing  
4 law, notices, and other matters, apply also to this  
5 agreement.

6 10. SIGNATURE CLAUSE: The signatories hereto represent  
7 that they have been authorized to enter into this  
8 agreement on behalf of the Party for whom they sign.  
9 Executed as of \_\_\_\_\_, 19\_\_.

10  
11 SOUTHERN CALIFORNIA EDISON COMPANY

12 By \_\_\_\_\_  
13 Vice President

14  
15 CITY OF RIVERSIDE

16 By \_\_\_\_\_  
17 Public Utilities Director

SUPPLEMENTAL AGREEMENT  
FOR THE INTEGRATION OF  
RIVERSIDE'S ENTITLEMENTS IN  
SAN ONOFRE UNIT 2 AND UNIT 3

1  
2  
3  
4 1. PARTIES: The Parties to this agreement are the City  
5 of Riverside, a municipal corporation of the State of  
6 California and the Southern California Edison Company,  
7 a California corporation.

8 2. RECITALS: This agreement is made with reference to the  
9 following facts, among others:

10 2.1 On \_\_\_\_\_, the Parties entered into  
11 the Integrated Operations Agreement providing for  
12 integrated operation of their resources.

13 2.2 On \_\_\_\_\_, Edison, Riverside, the  
14 City of Anaheim, and San Diego Gas & Electric Company  
15 entered into the Participation Agreement under which  
16 Riverside has acquired a 1.79 percent ownership interest  
17 in Unit 2 and Unit 3 and a corresponding entitlement in  
18 the capacity and energy from such units.

19 2.3 On \_\_\_\_\_, the Parties entered into  
20 the Edison-Riverside San Onofre Transmission Service  
21 Agreement under which Edison has agreed to provide  
22 transmission service for Riverside's entitlement over  
23 Edison's electrical transmission facilities between  
24 Unit 2 and Unit 3 and Riverside.

25 2.4 Riverside desires and Edison is willing that  
26 Riverside's entitlement in Unit 2 and Unit 3 be integrated

1 as a City Capacity Resource pursuant to the Integrated  
2 Operations Agreement.

3 3. AGREEMENT: The Parties agree as follows:

4 4. DEFINITIONS: The following terms, when used herein with  
5 initial capitalization (whether in singular or plural),  
6 shall have the meaning specified:

7 4.1 Authorized Representative: Authorized  
8 Representative as defined in the Integrated Operations  
9 Agreement.

10 4.2 Batch Energy Rate: The total amount of  
11 prereactor payments plus interest made for the purchase  
12 of a nuclear fuel batch for Unit 2 or Unit 3, plus the  
13 estimated postreactor payments and credits for such  
14 batch, and less any amount amortized in a previous fuel  
15 cycle, divided by the estimated net electrical  
16 generation to be produced during the remaining period  
17 when such nuclear batch is in Unit 2 or Unit 3.  
18 Adjustments will be made on the basis of the actual net  
19 electrical generation produced during said remaining  
20 period.

21 4.3 Capacity Credit: Capacity Credit as defined  
22 in the Integrated Operations Agreement.

23 4.4 City Capacity Resource: City Capacity Resource  
24 as defined in the Integrated Operations Agreement.

25 4.5 City Incremental Cost: City Incremental Cost  
26 as defined in the Integrated Operations Agreement.



1           4.6 Commission: Federal Energy Regulatory  
2 Commission or successor.

3           4.7 Contract Energy Cost: Contract Energy Cost  
4 as defined in the Integrated Operations Agreement.

5           4.8 Date of Firm Operation: Date of Firm  
6 Operation as defined in the Integrated Operations  
7 Agreement.

8           4.9 Edison: Southern California Edison Company.

9           4.10 Effective Operating Capacity: The full  
10 load net electrical capability as established from time  
11 to time pursuant to performance tests within the  
12 operating limits authorized by the Nuclear Regulatory  
13 Commission, which is reported to regulatory agencies  
14 and others as the effective operating capacity.

15           1 Integrated Operations Agreement: The  
16 Integrated Operations Agreement between Riverside and  
17 Edison, dated \_\_\_\_\_.

18           4.12 Load: Load as defined in the Integrated  
19 Operations Agreement.

20           4.13 Participation Agreement: The San Onofre  
21 Units 2 and 3 Participation Agreement among Edison,  
22 San Diego Gas & Electric Company, City of Anaheim, and  
23 Riverside, dated \_\_\_\_\_.

24           4.14 Party: Edison or Riverside.

25           4.15 Rated Capability: Rated Capability as  
26 defined in the Integrated Operations Agreement.

1           4.16 Riverside: City of Riverside.

2           4.17 Settlement Agreement: Settlement Agreement  
3 as defined in the Integrated Operations Agreement.

4           4.18 Transmission Service Agreement: The Edison-  
5 Riverside San Onofre Transmission Service Agreement  
6 between Riverside and Edison, dated \_\_\_\_\_.

7           4.19 Unit 2: Unit 2 as defined in the  
8 Participation Agreement.

9           4.20 Unit 3: Unit 3 as defined in the  
10 Participation Agreement.

11 5. INTEGRATION:

12           5.1 Riverside's entitlements in Unit 2 and Unit 3  
13 shall be integrated and Riverside shall receive Capacity  
14 Credit in accordance with the Integrated Operations  
15 Agreement. Unless otherwise agreed, Riverside's  
16 Unit 2 entitlement shall become a source of Rated  
17 Capability on October 1, 1980 or the Date of Firm  
18 Operation for Unit 2, whichever is later, and River-  
19 side's Unit 3 entitlement shall become a source of  
20 Rated Capability on January 1, 1982 or the Date of Firm  
21 Operation for Unit 3, whichever is later.

22           5.2 This agreement is supplemental to the  
23 Integrated Operations Agreement and shall not amend or  
24 supersede said Integrated Operations Agreement, except  
25 that the provisions of this agreement which are  
26 inconsistent with those of the Integrated Operations

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1 Agreement shall control during the term of this  
2 agreement.

3 6. DETERMINATION OF RIVERSIDE'S RATED CAPABILITY:

4 6.1 Rated Capability of Riverside's entitlements  
5 in Unit 2 and Unit 3 shall be equal to 1.79 percent of  
6 the firm power rating of Unit 2 and Unit 3, respectively.  
7 Unless otherwise agreed, such firm power ratings shall  
8 be as follows:

9 6.1.1 During the period between the Date  
10 of Firm Operation for Unit 2 and October 1, 1981, the  
11 firm power rating of Unit 2 shall be equal to 220  
12 megawatts. Thereafter, such rating shall be equal to  
13 the Effective Operating Capacity of Unit 2. Accordingly,  
14 such rating is now scheduled to be 220 megawatts between  
15 October 1, 1980 and October 1, 1981, and 1100 megawatts  
16 thereafter.

17 6.1.2 During the period between the Date of  
18 Firm Operation for Unit 3 and January 1, 1983, the  
19 firm power rating of Unit 3 shall be equal to 220  
20 megawatts. Thereafter, such rating shall be equal to  
21 the Effective Operating Capacity of Unit 3. Accordingly,  
22 such rating is now scheduled to be 220 megawatts between  
23 January 1, 1982 and January 1, 1983, and 1100 megawatts  
24 thereafter.

25 6.2 Unless otherwise agreed by the Authorized  
26 Representatives, the Parties shall use the dates and

1 ratings set forth in Section 6.1.1 and 6.1.2 for  
2 planning and reporting purposes.

3 7. DETERMINATION OF CITY INCREMENTAL COST:

4 7.1 Pursuant to Section 5.9 of the Integrated  
5 Operations Agreement, unless otherwise agreed by the  
6 Authorized Representatives, City Incremental Cost for  
7 Unit 2 or Unit 3 shall each be determined by the  
8 following formula:

9 
$$CIC = \frac{(FC + OC)(100)}{(100-L)}$$

10  
11 CIC = City Incremental Cost, expressed in terms of  
12 mills per kilowatthour. Such cost, as determined  
13 for the end of any month, shall be applicable in  
14 the next succeeding month.

15 FC = Nuclear fuel cost, expressed in terms of mills  
16 per kilowatthour for Unit 2 or Unit 3. Such cost,  
17 as determined at the beginning of a fuel cycle,  
18 shall equal the sum of the Batch Energy Rates  
19 for Riverside for the fuel batches in Unit 2 or  
20 Unit 3 during a fuel cycle. Such cost as  
21 determined at the beginning of a fuel cycle  
22 shall be applicable for the duration of said  
23 fuel cycle.

24 OC = Other costs associated with the production of  
25 such energy, expressed in terms of mills per  
26 kilowatthour for Unit 2 or Unit 3. Such other

1 costs shall be equal to (i) the sum of money  
2 billed to Riverside by Edison, for the period  
3 covered by the latest Form 1 Report, for FPC  
4 Accounts 517, 519-525, 528-532 and for fuel  
5 management costs, divided by (ii) Riverside's  
6 share of the net generation from Unit 2 or  
7 Unit 3 during such period. Such other costs  
8 shall be applicable during the 12-month period  
9 commencing May 1 of that year.

10 L = Transmission losses, expressed in percent, as  
11 determined in accordance with Section 7.3 of the  
12 Transmission Service Agreement. Such losses  
13 shall be applicable to sales made by Edison to  
14 Riverside, in any hour, pursuant to Section  
15 16.2.1.1 of the Integrated Operations Agreement.  
16 Such losses shall not be applicable for sales  
17 made by Riverside to Edison pursuant to Section  
18 19.2 of the Integrated Operations Agreement.

19 8. RIVERSIDE'S ELECTION TO PAY FOR ENERGY WHEN  
20 UNITS ARE AVAILABLE BUT NOT DISPATCHED:

21 8.1 Pursuant to Section 16.2.1.1 of the  
22 Integrated Operations Agreement, Riverside elects to  
23 pay for energy associated with its entitlements in  
24 Unit 2 and Unit 3 at City Incremental Cost.

25 8.2 Riverside may change its election to pay at  
26 Contract Energy Cost or City Incremental Cost upon (i)

1 three years' notice to Edison or (ii) when a change in  
2 the Contract Energy Cost formula has become effective.

3 9. EFFECTIVE DATE, TERM, AND TERMINATION:

4 9.1 This agreement shall become effective on the  
5 date following execution by both Parties when accepted  
6 for filing by the Commission, but if upon such filing  
7 the Commission enters upon a hearing to determine  
8 whether this agreement is just and reasonable, it  
9 shall not become effective until the date when an  
10 order no longer subject to judicial review has been  
11 issued by the Commission determining this agreement to  
12 be just and reasonable without new conditions  
13 unacceptable to either Party.

14 9.2 This agreement shall remain in effect for  
15 50 years, except that it shall terminate sooner upon  
16 the occurrence of any of the following:

17 9.2.1 Written agreement of the Parties to  
18 terminate this agreement, or

19 9.2.2 Termination of the Integrated  
20 Operations Agreement, or

21 9.2.3 Termination of the Unit 2 and Unit 3  
22 ownership or operating agreements.

23 9.3 If notice of termination of the Integrated  
24 Operations Agreement is given by either Party, the  
25 Parties shall take actions similar to those described  
26 in Section 4.3 of the Integrated Operations Agreement

1 to develop a new arrangement for furnishing the  
2 services referred to in the Settlement Agreement which  
3 are provided for in this agreement.

4 10. SIGNATURE CLAUSE: The signatories hereto represent  
5 that they have been authorized to enter into this  
6 agreement on behalf of the Party for whom they sign.

7 Executed as of \_\_\_\_\_, 19\_\_.

8  
9 SOUTHERN CALIFORNIA EDISON COMPANY

10  
11 By \_\_\_\_\_  
12 Vice President

13 CITY OF RIVERSIDE

14  
15 By \_\_\_\_\_  
16 Public Utilities Director

17 /

18 /

19 /

20 /

21 /

22 /

23 /

24 /

EDISON-ANAHEIM SAN ONOFRE  
TRANSMISSION SERVICE AGREEMENT

1  
2  
3 1. PARTIES: The Parties to this agreement are the City  
4 of Anaheim, a municipal corporation of the State of  
5 California, and the Southern California Edison Company,  
6 a California corporation.

7 2. RECITALS: This agreement is made with reference to  
8 the following facts, among others:

9 2.1 On \_\_\_\_\_, the Parties entered  
10 into the Integrated Operations Agreement providing  
11 for integrated operation of their resources.

12 2.2 On \_\_\_\_\_, Edison, Anaheim, the  
13 City of Riverside, and San Diego Gas & Electric  
14 Company entered into the Participation Agreement under  
15 which Anaheim has acquired a 1.66 percent ownership  
16 interest in Unit 2 and Unit 3 and a corresponding entitle-  
17 ment in the capacity and energy from such units.

18 2.3 On \_\_\_\_\_, the Parties entered  
19 into the Supplemental Agreement for the Integration  
20 of Anaheim's Entitlements in San Onofre Unit 2 and  
21 Unit 3, under which Edison has agreed to integrate  
22 Anaheim's Entitlement in Unit 2 and Unit 3 in  
23 accordance with the Integrated Operations Agreement.

24 2.4 Anaheim desires to have its energy from Unit  
25 2 and Unit 3 transmitted to the Point of Delivery, and  
26 Edison is willing to transmit such energy for Anaheim



1 as provided hereunder.

2 3. AGREEMENT: The Parties agree as follows:

3 4. DEFINITIONS: The following terms, when used herein with  
4 initial capitalization (whether in the singular or plural),  
5 shall have the meaning specified:

6 4.1 Anaheim: City of Anaheim.

7 4.2 Authorized Representative: Authorized  
8 Representative as defined in the Integrated Operations  
9 Agreement.

10 4.3 Circuit Mileage: Circuit Mileage as used in  
11 Contract Rate TN.

12 4.4 Commission: Federal Energy Regulatory  
13 Commission or successor.

14 4.5 Contract Capacity: Contract Capacity as  
15 used in Contract Rate TN.

16 4.6 Contract Rate TN: A rate schedule  
17 designated Network Transmission Service, Contract Rate  
18 TN, filed with the Commission as part of a submittal  
19 by Edison in Docket E-8160 designated Southern California  
20 Edison Company, FPC Electric Tariff, Original Volume  
21 No. 1, or any superseding rate schedule.

22 4.7 Date of Firm Operation: Date of Firm  
23 Operation as defined in the Integrated Operations  
24 Agreement.

25 4.8 Edison: Southern California Edison Company.

26 4.9 Edison's 220-kV Buses: The 220-kV buses in

1 the Edison Switchyard.

2 4.10 Edison Switchyard: Edison Switchyard as  
3 defined in the Participation Agreement.

4 4.11 Integrated Operations Agreement: The  
5 Integrated Operations Agreement between Anaheim and  
6 Edison, dated \_\_\_\_\_.

7 4.12 Interconnection Facilities: Interconnection  
8 Facilities as defined in the Participation Agreement.

9 4.13 Participation Agreement: The San Onofre  
10 Units 2 and 3 Participation Agreement among Edison,  
11 San Diego Gas & Electric Company, City of Riverside,  
12 and Anaheim dated \_\_\_\_\_.

13 4.14 Party: Edison or Anaheim.

14 4.15 Point of Delivery: The point where the  
15 electrical conductors of Edison connect with the  
16 electrical conductors of Anaheim at Anaheim's Lewis  
17 Substation.

18 4.16 Rated Capability: Rated Capability as  
19 defined in the Integrated Operations Agreement.

20 4.17 San Diego Switchyard: San Diego Switchyard  
21 as defined in the Participation Agreement.

22 4.18 Settlement Agreement: Settlement Agreement  
23 as defined in the Integrated Operations Agreement.

24 4.19 Uncontrollable Force: Uncontrollable Force  
25 as defined in the Integrated Operations Agreement.

26 4.20 Unit 2: Unit 2 as defined in the Participa-

1           tion Agreement.

2           4.21 Unit 3: Unit 3 as defined in the Participa-  
3           tion Agreement.

4           4.22 Unit 2 Points of Attachment: The four points  
5           where the jointly-owned 220 kV switchrack facilities  
6           which are part of Unit 2 are connected to the Edison-  
7           owned 220 kV disconnect switches in the Edison Switch-  
8           yard, as indicated on Exhibit 1, attached hereto.

9           4.23 Unit 3 Points of Attachment: The four points  
10          where the jointly-owned 220 kV switchrack facilities  
11          which are part of Unit 3 are connected to the San Diego-  
12          owned 220 kV disconnect switches in the San Diego  
13          Switchyard, as indicated on Exhibit 1, attached hereto.

14 5. EFFECTIVE DATE, TERM, AND TERMINATION:

15           5.1 This agreement shall become effective on the  
16           date following execution by both Parties when accepted  
17           for filing by the Commission, but if upon such filing  
18           the Commission enters upon a hearing to determine  
19           whether this agreement is just and reasonable, it shall  
20           not become effective until the date when an order no  
21           longer subject to judicial review has been issued by  
22           the Commission determining this agreement to be just  
23           and reasonable without new conditions unacceptable to  
24           either Party.

25           5.2 This agreement shall remain in effect for  
26           50 years, except that it shall terminate sooner upon

1 the occurrence of any of the following:

2 5.2.1 Written agreement of the Parties to  
3 terminate this agreement,

4 5.2.2 Termination of the Integrated Operations  
5 Agreement, or

6 5.2.3 Termination of Unit 2 and Unit 3  
7 ownership or operating agreements.

8 5.3 If notice of termination of the Integrated  
9 Operations Agreement is given by either Party, the  
10 Parties shall take actions similar to those described  
11 in Section 4.3 of the Integrated Operations Agreement to  
12 develop a new arrangement for furnishing the services  
13 referred to in the Settlement Agreement which are  
14 provided for in this agreement.

15 6. TRANSMISSION SERVICE:

16 6.1 Except as modified herein, transmission  
17 service hereunder shall be provided in accordance with  
18 Contract Rate TN. Edison anticipates that, prior to  
19 commencement of service hereunder, Edison will have  
20 filed for changes in Contract Rate TN to, among other  
21 things, update charges therein. Anaheim expressly  
22 reserves the right to oppose such filings.

23 6.2 Service hereunder shall commence on the Date  
24 of Firm Operation for Unit 2. Contract Capacity shall  
25 then be 18.26 megawatts, the expected maximum Rated  
26 Capability for Unit 2. On the Date of Firm Operation

1 for Unit 3, Contract Capacity shall be increased by  
2 18.26 megawatts, the expected maximum Rated Capability  
3 for Unit 3.

4 6.3 Edison shall accept deliveries of Anaheim's  
5 Unit 2 and Unit 3 energy at Edison's 220-kV Buses at  
6 rates of delivery not exceeding Contract Capacity, and  
7 shall simultaneously deliver a like amount of energy,  
8 less transmission losses, to Anaheim at the Point of  
9 Delivery.

10 6.4 During times when Anaheim may be required to  
11 provide its share of the auxiliary power requirement  
12 at San Onofre, Edison shall accept deliveries of energy  
13 from Anaheim at the Point of Delivery, and simultaneously  
14 deliver a like amount of energy, less transmission losses,  
15 to Edison's 220-kv Buses, to enable Anaheim to meet  
16 such requirements.

17 6.5 Edison shall provide connection services as  
18 required by Contract Rate TN to Anaheim by transmitting  
19 (1) Anaheim's share of Unit 2 output and auxiliary power  
20 requirements between the Unit 2 Points of Attachment  
21 and Edison's 220-kV Buses, and (2) Anaheim's share of  
22 Unit 3 output and auxiliary power requirements between  
23 the Unit 3 Points of Attachment and Edison's 220-kV Buses.

24 6.6 No new facilities as covered by Special  
25 Condition No. 5 of Contract Rate TN shall be necessary  
26 to provide service hereunder.

1           6.7 Edison reserves the right to temporarily  
2 interrupt or curtail service hereunder (1) upon  
3 reasonable advance notice to Anaheim to make repairs,  
4 replacements, or modifications or to perform  
5 maintenance work, and for the purpose of maintaining  
6 continuity of service, (2) without notice to Anaheim  
7 if such interruption or curtailment is because of an  
8 Uncontrollable Force. Such curtailment may be related  
9 to implementation of mutual load shedding arrangements  
10 agreed to between Anaheim and Edison.

11 7. CHARGES AND TRANSMISSION LOSSES:

12           7.1 For the service provided under Section 6.3,  
13 charges shall be made in accordance with the rates set  
14 forth in Contract Rate TN. Circuit Mileage is hereby  
15 agreed to be 47.4 miles initially and subject to change  
16 in accordance with Contract Rate TN by written agreement  
17 of the Authorized Representatives. No additional  
18 charge shall be made for the service provided under  
19 Section 6.4.

20           7.2 For the connection services provided under  
21 Section 6.5 the annual charge for Unit 2 shall be \$690  
22 and the annual charge for Unit 3 shall be \$2760.

23           7.3 Transmission losses referred to in Sections 6.3  
24 and 6.4 shall be determined in accordance with the rates  
25 set forth in Contract Rate TN and using the Circuit  
26 Mileage agreed to in Section 7.1.

1           7.4 Notwithstanding any other provision of this  
2 agreement Edison shall have the right in furnishing trans-  
3 mission service hereunder to file with the Commission for  
4 changes in rates, charges, classification, or service, or  
5 any rule, regulation or contract relating thereto, as set  
6 forth in Section 21 of the Integrated Operations Agreement.

7 8. BILLING AND PAYMENT:

8           8.1 Prior to the fifteenth day of December, Edison  
9 shall render a bill to Anaheim for services to be  
10 provided hereunder during the following calendar year.  
11 One-twelfth of such annual charges shall be due and  
12 payable by Anaheim on the fifteenth day of each month.  
13 The bill for a partial year's advance service shall be  
14 rendered at least fifteen days prior to the commence-  
15 ment of service, and equal monthly payments shall be  
16 made during such partial year.

17           8.2 Payments which are not made in full by  
18 Anaheim by said due date, by placing payment in the  
19 mail properly addressed with postage prepaid, shall  
20 thereafter accrue interest at 10 percent per annum of  
21 the unpaid balance prorated by days until payment is  
22 made, provided, that in no event shall such interest  
23 rate exceed the maximum rate permitted by law  
24 applicable to this agreement.

25 9. INTEGRATION AGREEMENT PROVISIONS: This agreement is  
26 an Integration Agreement as defined in the Integrated

1 Operations Agreement. Therefore, the provisions of  
2 that agreement covering liability, arbitration,  
3 regulatory authority, uncontrollable forces, governing  
4 law, notices, and other matters, apply also to this  
5 agreement.

6 10. SIGNATURE CLAUSE: The signatories hereto represent  
7 that they have been authorized to enter into this  
8 agreement on behalf of the Party for whom they sign.  
9 Executed as of \_\_\_\_\_, 19\_\_.

10  
11 SOUTHERN CALIFORNIA EDISON COMPANY

12  
13 By \_\_\_\_\_  
14 Vice President

15  
16 CITY OF ANAHEIM

17  
18 By \_\_\_\_\_  
19 Utilities Director  
20  
21  
22  
23  
24  
25  
26



1 SUPPLEMENTAL AGREEMENT  
2 FOR THE INTEGRATION OF  
3 ANAHEIM'S ENTITLEMENTS IN  
4 SAN ONOFRE UNIT 2 AND UNIT 3

5 1. PARTIES: The Parties to this agreement are the City  
6 of Anaheim, a municipal corporation of the State of  
7 California and the Southern California Edison Company,  
8 a California corporation.

9 2. RECITALS: This agreement is made with reference to the  
10 following facts, among others:

11 2.1 On \_\_\_\_\_, the Parties entered into  
12 the Integrated Operations Agreement providing for  
13 integrated operation of their resources.

14 2.2 On \_\_\_\_\_, Edison, Anaheim, the  
15 City of Riverside, and San Diego Gas & Electric Company  
16 entered into the Participation Agreement under which  
17 Anaheim has acquired a 1.66 percent ownership interest  
18 in Unit 2 and Unit 3 and a corresponding entitlement in  
19 the capacity and energy from such units.

20 2.3 On \_\_\_\_\_, the Parties entered into  
21 the Edison-Anaheim San Onofre Transmission Service  
22 Agreement under which Edison has agreed to provide  
23 transmission service for Anaheim's entitlement over  
24 Edison's electrical transmission facilities between  
25 Unit 2 and Unit 3 and Anaheim.

26 2.4 Anaheim desires and Edison is willing that  
Anaheim's entitlement in Unit 2 and Unit 3 be integrated

1 as a City Capacity Resource pursuant to the Integrated  
2 Operations Agreement.

3 3. AGREEMENT: The Parties agree as follows:

4 4. DEFINITIONS: The following terms, when used herein  
5 with initial capitalization (whether in singular or  
6 plural), shall have the meaning specified:

7 4.1 Anaheim: City of Anaheim.

8 4.2 Authorized Representative: Authorized  
9 Representative as defined in the Integrated Operations  
10 Agreement.

11 4.3 Batch Energy Rate: The total amount of  
12 prereactor payments plus interest made for the purchase  
13 of a nuclear reactor fuel batch for Unit 2 or Unit 3, plus  
14 the total estimated postreactor payments and credits  
15 for such batch, less any amount amortized in a previous  
16 fuel cycle, divided by the estimated net electrical  
17 generation to be produced during the remaining period  
18 when such nuclear batch is in Unit 2 or Unit 3. Adjust-  
19 ments will be made on the basis of the actual net  
20 electrical generation produced during said remaining  
21 period.

22 4.4 Capacity Credit: Capacity Credit as defined  
23 in the Integrated Operations Agreement.

24 4.5 City Capacity Resource: City Capacity  
25 Resource as defined in the Integrated Operations  
26 Agreement.

1           4.6 City Incremental Cost: City Incremental  
2 Cost as defined in the Integrated Operations Agreement.

3           4.7 Commission: Federal Energy Regulatory  
4 Commission or successor.

5           4.8 Contract Energy Cost: Contract Energy Cost  
6 as defined in the Integrated Operations Agreement.

7           4.9 Date of Firm Operation: Date of Firm  
8 Operation as defined in the Integrated Operations  
9 Agreement.

10          4.10 Edison: Southern California Edison Company.

11          4.11 Effective Operating Capacity: The full  
12 load net electrical capability as established from  
13 time to time pursuant to performance tests within the  
14 operating limits authorized by the Nuclear Regulatory  
15 Commission, which is reported to regulatory agencies  
16 and others as the effective operating capacity.

17          4.12 Integrated Operations Agreement: The  
18 Integrated Operations Agreement between Anaheim and  
19 Edison, dated \_\_\_\_\_.

20          4.13 Load: Load as defined in the Integrated  
21 Operations Agreement.

22          4.14 Participation Agreement: The San Onofre  
23 Units 2 and 3 Participation Agreement among Edison,  
24 San Diego Gas & Electric Company, City of Riverside,  
25 and Anaheim, dated \_\_\_\_\_.

26          4.15 Party: Edison or Anaheim.

1           4.16 Rated Capability: Rated Capability as  
2 defined in the Integrated Operations Agreement.

3           4.17 Settlement Agreement: Settlement Agreement as  
4 defined in the Integrated Operations Agreement.

5           4.18 Transmission Service Agreement: The Edison-  
6 Anaheim San Onofre Transmission Service Agreement between  
7 Anaheim and Edison, dated \_\_\_\_\_.

8           4.19 Unit 2: Unit 2 as defined in the  
9 Participation Agreement.

10          4.20 Unit 3: Unit 3 as defined in the  
11 Participation Agreement.

12 5. INTEGRATION:

13           5.1 Anaheim's entitlements in Unit 2 and Unit 3  
14 shall be integrated and Anaheim shall receive Capacity  
15 Credit in accordance with the Integrated Operations  
16 Agreement. Unless otherwise agreed, Anaheim's  
17 Unit 2 entitlement shall become a source of Rated  
18 Capability on October 1, 1980 or the Date of Firm  
19 Operation for Unit 2, whichever is later, and Anaheim's  
20 Unit 3 entitlement shall become a source of Rated  
21 Capability on January 1, 1982 or the Date of Firm  
22 Operation for Unit 3, whichever is later.

23           5.2 This agreement is supplemental to the  
24 Integrated Operations Agreement and shall not amend or  
25 supersede said Integrated Operations Agreement, except  
26 that the provisions of this agreement which are

1 inconsistent with those of the Integrated Operations  
2 Agreement shall control during the term of this  
3 agreement.

4 6. DETERMINATION OF ANAHEIM'S RATED CAPABILITY:

5 6.1 Rated Capability of Anaheim's entitlements  
6 in Unit 2 and Unit 3 shall be equal to 1.66 percent of  
7 the firm power rating of Unit 2 and Unit 3, respectively.  
8 Unless otherwise agreed, such firm power ratings shall  
9 be as follows:

10 6.1.1 During the period between the Date  
11 of Firm Operation for Unit 2 and October 1, 1981, the  
12 firm power rating of Unit 2 shall be equal to 220  
13 megawatts. Thereafter, such rating shall be equal to  
14 the Effective Operating Capacity of Unit 2. Accordingly,  
15 such rating is now scheduled to be 220 megawatts between  
16 October 1, 1980 and October 1, 1981, and 1100 megawatts  
17 thereafter.

18 6.1.2 During the period between the Date of  
19 Firm Operation for Unit 3 and January 1, 1983, the  
20 firm power rating of Unit 3 shall be equal to 220  
21 megawatts. Thereafter, such rating shall be equal to  
22 the Effective Operating Capacity of Unit 3. Accordingly,  
23 such rating is now scheduled to be 220 megawatts between  
24 January 1, 1982 and January 1, 1983, and 1100 megawatts  
25 thereafter.

26 6.2 Unless otherwise agreed by the Authorized

1 Representatives, the Parties shall use the dates and  
2 ratings set forth in Section 6.1.1 and 6.1.2 for  
3 planning and reporting purposes.

4 7. DETERMINATION OF CITY INCREMENTAL COST:

5 7.1 Pursuant to Section 5.9 of the Integrated  
6 Operations Agreement, unless otherwise agreed by the  
7 Authorized Representatives, City Incremental Cost  
8 for Unit 2 or Unit 3 shall each be determined by the  
9 following formula:

10 
$$\text{CIC} = (\text{FC} + \text{OC}) \frac{(100)}{(100-L)}$$

11  
12 CIC = City Incremental Cost, expressed in terms of  
13 mills per kilowatthour. Such cost, as determined  
14 for the end of any month, shall be applicable in  
15 the next succeeding month.

16 FC = Nuclear fuel cost, expressed in terms of mills  
17 per kilowatthour for Unit 2 or Unit 3. Such  
18 cost, as determined at the beginning of a fuel  
19 cycle, shall equal the sum of the Batch Energy  
20 Rates for Anaheim for the fuel batches in Unit 2  
21 or Unit 3 during a fuel cycle. Such cost as  
22 determined at the beginning of a fuel cycle shall  
23 be applicable for the duration of said fuel cycle.

24 OC = Other costs associated with the production of  
25 such energy, expressed in terms of mills per  
26 kilowatthour for Unit 2 or Unit 3. Such other

1 costs shall be equal to (i) the sum of money  
2 billed to Anaheim by Edison, for the period  
3 covered by the latest Form 1 Report, for FPC  
4 Accounts 517, 519-525, 528-532 and for fuel  
5 management costs, divided by (ii) Anaheim's share  
6 of the net generation from Unit 2 or Unit 3 during  
7 such period. Such other costs shall be applicable  
8 during the 12-month period commencing May 1 of  
9 that year.

10 L = Transmission losses, expressed in percent, as  
11 determined in accordance with Section 7.3 of the  
12 Transmission Service Agreement. Such losses  
13 shall be applicable to sales made by Edison to  
14 Anaheim, in any hour, pursuant to Section  
15 16.2.1.1 of the Integrated Operations Agreement.  
16 Such losses shall not be applicable for sales  
17 made by Anaheim to Edison pursuant to Section  
18 19.2 of the Integrated Operations Agreement.

19 8. ANAHEIM'S ELECTION TO PAY FOR ENERGY WHEN UNITS  
20 ARE AVAILABLE BUT NOT DISPATCHED:

21 8.1 Pursuant to Section 16.2.1.1 of the  
22 Integrated Operations Agreement, Anaheim elects to pay  
23 for energy associated with its entitlement in Unit 2  
24 and Unit 3 at City Incremental Cost.

25 8.2 Anaheim may change its election to pay at  
26 Contract Energy Cost or City Incremental Cost upon (i)

1 three years' notice to Edison or (ii) when a change in  
2 the Contract Energy Cost formula has become effective.

3 9. EFFECTIVE DATE, TERM, AND TERMINATION:

4 9.1 This agreement shall become effective on the  
5 date following execution by both Parties when accepted  
6 for filing by the Commission, but if upon such filing  
7 the Commission enters upon a hearing to determine  
8 whether this agreement is just and reasonable, it shall  
9 not become effective until the date when an order no  
10 longer subject to judicial review has been issued by  
11 the Commission determining this agreement to be just  
12 and reasonable without new conditions unacceptable to  
13 either Party.

14 9.2 This agreement shall remain in effect for  
15 50 years, except that it shall terminate sooner upon  
16 the occurrence of any of the following:

17 9.2.1 Written agreement of the Parties to  
18 terminate this agreement, or

19 9.2.2 Termination of the Integrated  
20 Operations Agreement, or

21 9.2.3 Termination of the Unit 2 and Unit 3  
22 ownership or operating agreements.

23 9.3 If notice of termination of the Integrated  
24 Operations Agreement is given by either Party, the  
25 Parties shall take actions similar to those described  
26 in Section 4.3 of the Integrated Operations Agreement



1 to develop a new arrangement for furnishing the  
2 services referred to in the Settlement Agreement which  
3 are provided for in this agreement.

4 10. SIGNATURE CLAUSE: The signatories hereto represent  
5 that they have been authorized to enter into this  
6 agreement on behalf of the Party for whom they sign.  
7 Executed as of \_\_\_\_\_, 19\_\_\_\_.

8  
9 SOUTHERN CALIFORNIA EDISON COMPANY

10  
11 By \_\_\_\_\_  
12 Vice President

13 CITY OF ANAHEIM

14  
15 By \_\_\_\_\_  
16 Utilities Director

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