

ORIGINALDecision 84 05 013

MAY 2 1984

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Investigation on the Commission's own
 motion to determine whether San
 Onofre Nuclear Generating Station
 Unit 1 should be ordered removed from
 the rate base of Southern California
 Edison Company and San Diego Gas &
 Electric Company.

OII 83-10-02
 (Filed October 5, 1983)

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Southern California Edison Company;
Randall W. Childress, Attorney at Law,
for San Diego Gas & Electric Company,
respondents.

Jon F. Elliott, Attorney at Law, for Towards
Utility Rate Normalization; Julie E.
McDonald, Attorney at Law, and Donna
Bronski, for the Sierra Club, intervenors.
F. E. John and T. D. Clarke, Attorneys at Law,
for Southern California Gas Company;
William Knecht, Attorney at Law, for
California Association of Utility
Shareholders; William S. Shaffran, Deputy
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Peter W. Hanschen and Steven Greenwald,
Attorneys at Law, for Pacific Gas and
Electric Company; and Brobeck, Phleger and
Harrison, by Richard C. Harper, Attorney
at Law, for California Manufacturers
Association, interested parties.

Robert C. Cagen, Attorney at Law, and A. V.
Garde, for the Commission staff.

INTERIM OPINIONSummary of Decision

This interim decision concludes that Southern California Edison Company (Edison), the operator of San Onofre Nuclear Generating Station Unit 1 (SONGS 1), has achieved an understanding with the Nuclear Regulatory Commission (NRC) as to the scope and

methods of making the plant modifications required by NRC for initial restart of SONGS 1, and that those plant modifications will be cost-effective. Edison is reasonably certain that it will achieve NRC approval for restart by January 1, 1985.

The decision provides two alternative methods of accounting for capital costs pending restart. Respondents may choose to immediately remove SONGS 1 from rate base, place current capital costs in a separate deferred debit account, and earn on such capital costs at the utility's authorized Allowance for Funds Used During Construction (AFUDC) rate. Alternatively, respondents may choose to continue to book SONGS 1 capital costs and earn on such capital costs at the utility's authorized rate of return, subject to refund if SONGS 1 is not operating at full power by January 1, 1985. ✓

The decision also concludes that Edison has made a prima facie showing that the presently known capital costs necessary to achieve the remaining NRC-required plant modifications will be cost-effective over the life of the plant, but the full extent of such costs are not known. Therefore, respondents are directed to seek prior Commission approval for plant modifications made after restart.

We also conclude that Towards Utility Rate Normalization's (TURN) request that we direct respondents to file for immediate abandonment of SONGS 1 should be denied.

This investigation was instituted by the Commission to determine whether SONGS 1 should be ordered removed from the rate base of Edison and San Diego Gas & Electric Company (SDG&E), the

owners and operators of SONGS 1.¹ These utilities were made respondents and were directed to make, as a compliance filing, a report on the current status of SONGS 1. That compliance filing was made on November 14, 1983 by Edison (Exhibit 1).

The Commission acted upon the Motion of the Commission Staff (staff) filed February 1, 1984 to immediately remove SONGS 1 from respondents' rate base by setting hearings for the considerations of the issues raised in the motion on February 27 through March 2, 1984 before Administrative Law Judge Mallory in San Francisco. This interim phase of the investigation was submitted upon receipt of concurrent closing briefs on March 27, 1984.

Evidence was presented on behalf of Edison, SDG&E, and staff. Briefs were filed by Edison, SDG&E, staff, TURN, Sierra Club, and the City of San Diego (City).

History of Recent SONGS 1 Outage

On February 27, 1982, SONGS 1 was shut down for the purpose of completing NRC backfit requirements resulting from the Three Mile Island (TMI) incident, NRC fire protection requirements, and limited seismic modifications to the turbine building and other miscellaneous structures. At the time the outage began, Edison expected to return the plant to service in June 1982. During the course of the outage, several events occurred which considerably prolonged the outage.

SONGS 1 is one of 11 older plants that are subject to the NRC's Systematic Evaluation Program (SEP). The purpose of the SEP is to evaluate these plants against current licensing criteria and define specific backfit requirements where found necessary. One of the areas reevaluated under the SEP is the capability of SONGS 1 to

¹ Order Instituting Investigation (OII) 83-10-02 was amended by Decision (D.) 84-03-044 of March 7, 1984 to include evaluation of the reasonableness of charges for replacement fuel during SONGS 1 outages; and by D.84-01-063 of January 19, 1984, to include evaluation of resleeving expenses as an extraordinary maintenance expense.

withstand seismic events. This reevaluation of seismic capability began in 1973 and has continued in one form or another to the present. Following the initiation of the SEP in 1978 this seismic reevaluation program was incorporated into the SEP.

The seismic criteria being applied to SONGS 1 in the SEP are 0.67g Housner response spectra, the same criteria used for SONGS 2 and 3. The original seismic design criteria for the plant for structures important to nuclear safety were what in today's terminology would be consistent with 0.25g Housner spectre operating basis earthquake and 0.5g Housner spectra safety shutdown earthquake. Other systems, components and structures, such as the turbine building which contains components associated with nuclear safety (static force criteria) were originally designed to a maximum ground acceleration of 0.2g.

In a November 16, 1981 report the NRC staff agreed with Edison's conclusion that continued operation of the plant would be acceptable in the interim until the seismic reevaluation and any necessary upgrading were completed. The NRC staff also concluded, however, that "near term modifications" were required in the North Turbine Building Extension and West Feedwater Heater Platform which were originally designed to 0.2g static.

At a meeting with NRC staff on May 3, 1982 Edison presented the results of its reevaluation, using the 0.67g Housner spectra, of the balance of plant mechanical equipment and piping required to shutdown the plant. The reevaluation apparently disclosed stress values for certain equipment, piping, and supports which caused the NRC staff concern as to whether the existing piping, pipe supports, and mechanical equipment including its anchorage met the original licensing design basis for the plant.

At a subsequent meeting between Edison and NRC staff in May 1982, the NRC concluded that the plant could return to service and

continue to operate at least until January 1, 1983 if Edison could demonstrate that the plant met its original license design basis.

Sometime during May 1982 Edison attempted to demonstrate that the plant met its original design basis by presenting to the NRC staff a discussion of the original design criteria, an explanation of how the criteria would have been implemented in the mid-1960s, and examples of lesser designed structures that withstood severe earthquakes. The NRC staff found Edison's presentation inadequate. Apparently the original design calculations and supporting material actually used to construct the plant were not presented to the NRC because they were not retained after the original design was completed and approved.

Without such calculations, new engineering analyses would have been required to demonstrate the plant's actual seismic capability to the NRC which Edison alleges would have required Edison to divert its staff from the reevaluation efforts then underway to bring the plant up to the 0.67g requirement and would ultimately have been fruitless because the new analyses could not have been completed and approved by the NRC prior to the January 1, 1983 deadline for having the plant at 0.67 seismic capability. Edison alleges that the "new engineering work" which would have been required to demonstrate the adequacy of the original construction to meet the original design criteria would have required "approximately 6 to 10 months."

By letter dated June 15, 1982, as supplemented by letter dated June 24, 1982, Edison informed the NRC that it intended to complete the reevaluation and make necessary modifications to meet the 0.67g Housner criteria rather than demonstrate that the facility met its original 0.5g design basis. Edison also indicated its intent to accelerate the reevaluation and backfit program and expected to be able to complete both the reevaluation and the required plant

modifications in time to return the plant to service by November 1982 or December 1982.

In July 1982 the NRC issued "new guidelines" for seismic analysis that were different from the criteria Edison had been using. In October 1982 Edison reestimated the scope of seismic upgrade work which would be required under the apparent NRC criteria and concluded that \$150 million to \$200 million worth of backfit work would be required prior to restarting the plant.

Sometime around November 1982 Edison significantly reduced the seismic reevaluation activities then underway due to continuing uncertainty with respect to NRC evaluation criteria and due to concern that the high-projected cost of seismic and other pending backfits was approaching the point at which the continued economic viability of the plant would be in question. The seismic reevaluation and upgrade work was eventually stopped altogether in August 1983 pending the resolution of seismic criteria and the scope of seismic upgrade work that would be required. Negotiations with the NRC regarding seismic criteria and scope of seismic backfit requirements continued throughout 1983 and continues to date.

In early 1983 Edison, in conjunction with consultants and vendors, initiated a program to develop "acceptance criteria" for seismic upgrade work on piping supports. In December 1983 Edison submitted a report to the NRC detailing documentation in support of its proposed "acceptance criteria." From a reading of the NRC staff's response dated February 8, 1984, it appears that Edison's acceptance criteria was intended to identify the minimum plant modifications necessary for the NRC to allow the plant to resume service. By letter dated February 8, 1984 the NRC staff agreed that Edison's criteria, as modified by the NRC staff, were sufficient for the plant to be restarted "for the short term" until all remaining seismic design issues could be completely resolved. The "short term"

was defined as only until the next scheduled refueling, although actual modifications determined necessary may be made at some later date. In its letter of February 8, 1984 the NRC staff stated, "substantial additional analyses and resulting plant modifications would be necessary to complete the seismic upgrade program..."

In addition to seismic backfit requirements, other plant modifications were pending in 1982. These additional modifications were primarily a result of (a) the fire at the Brown's Ferry nuclear plant in 1975, (b) the TMI incident in 1979, (c) regulations issued in 1979-80 regarding environmental qualification of equipment, and (d) the NRC's SEP. Edison estimated in its compliance filing (Exhibit 1) that the cost of these additional modifications to be "in the \$400 million range" if implemented in an "uncontrolled and random manner" according to the original proposed NRC schedule.

As a result of these estimated potential costs, Edison initiated discussions with the NRC in order to establish an "Integrated Backfit Program" and "Integrated Living Schedule (ILS)" for defining backfit requirements and phasing plant modifications over a period of years into the future. The NRC agreed in principle to such an "ILS" in August 1982, but rejected the schedule Edison initially proposed. Both the scope of required backfits and the schedule for implementing the modifications to be required were under discussion at the time of the staff's motion.

Edison hired an outside consultant sometime in 1983 to evaluate Edison's licensing strategies and technical approaches to resolve NRC backfit requirements. Torrey Pines Technology, a division of GA Technology, completed the analysis in June 1983 and concluded that Edison's approach was "reasonable" and "consistent with that used by other utilities operating nuclear plants."

Issues Deferred to Subsequent Phases of OII

The following reasonableness issues, of necessity, could not be explored within the limited hearing time allotted to the initial phase of this proceeding and are deferred to subsequent phases:

1. Was Edison's failure to retain the original design calculations and work papers which may have demonstrated that SONGS 1 was constructed to its original 0.5g seismic design standard imprudent?

2. Did Edison act reasonably in choosing not to divert staff from its 0.67g reevaluation program to demonstrating the plant's 0.5g capability?

3. Should Edison have known in the summer of 1982 that they would be unable to complete backfit work to 0.67g by the end of 1982 and might therefore make better use of engineering staff demonstrating that SONGS 1 was constructed to its original intended 0.5g seismic standard?

4. Was it reasonable for Edison to reduce seismic reevaluation efforts in November 1982 and terminate them altogether in August 1983?

5. Was the alleged reduction in the scope of backfit work required for NRC approval to restart SONGS 1 cost-effective when compared to the incremental replacement fuel costs which were incurred as a result of the prolonged negotiations between Edison and the NRC which were required to achieve the alleged reduction?

6. Were the replacement fuel costs assessed during the extended outages reasonable?

Issues Considered Here

1. For restart of SONGS 1, the work remaining to be done, the estimated date of completion, and the estimated costs of such work.

2. For long-term modifications of SONGS 1 needed to meet NRC requirements, the scope of the work to be done, and the projected costs of the modifications.

3. Whether it is economical and beneficial to ratepayers for restart work to be completed.

4. Whether it is economical and beneficial to ratepayers for long-term plant modifications to be completed.

5. Whether respondents should be prohibited from making any modifications to SONGS 1 not needed for restart, until the Commission finds such modifications are cost-effective.

6. Whether SONGS 1 will be used and useful for future operations.

7. Whether the Commission should remove SONGS 1 from respondents' rate base.

Respondents' Evidence

As Edison is responsible for the operation of SONGS 1, respondents' principal evidence was presented through Edison's witnesses. SDG&E's witness testified to the effect that, as it had little control over the operating decisions that preceded and followed the shutdown of SONGS 1, SDG&E should not be penalized for delays in restart or possible cost overruns.

Exhibit 1 in this proceeding is the compliance report directed to be filed in the OII. That document reported in detail the status of the work being undertaken at SONGS 1 for restart and to fully meet NRC requirements, among other matters.

Witness Fogarty (Exhibit 2) presented an update of that report describing the current status of SONGS 1. According to the witness, it is Edison's expectation that SONGS 1 will return to service on January 1, 1985. The witness testified that Edison had reached agreement with NRC as to the work necessary for restart and the criteria under which work will be performed. Edison estimates

that the plant modifications necessary for restart can be completed for \$37.5 million, in addition to that already spent (\$30 million allocated to Edison and \$7.5 million allocated to SDG&E).

Essentially the work needed to be completed for restart is the seismic improvements necessary to achieve the 0.67g Houser response spectra. Witness Fogarty believes that SONGS 1 will fully meet NRC seismic standards upon completion of the modifications preparatory to restart. As there is full agreement about the scope of the work to be done and the methods to accomplish that work, the witness believes there are no substantial impediments to completion of that work by January 1, 1985.

Operations following the January 1, 1985 restart would be limited by NRC to one 18-month fuel cycle (there is a 15-month supply in the core at this time), after which respondents would have to perform further modifications required under SONGS 1's ILS schedule. The compliance report (Exhibit 1) contains a "guesstimate" of \$400 million to complete all of the additional plant modifications mandated by NRC. This number was reduced to "less than \$200 million" by the witness after further review. The witness testified that Edison is conducting ongoing negotiations with NRC concerning the scope and criteria for performing the additional work to be done to upgrade SONGS 1 to current NRC standards. The post-hearing information furnished by Edison to counsel as a result of questions of the witness indicate that the \$200 million figure is based on the revised ILS program (late-filed Exhibit 12) and additional ILS costs (late-filed Exhibit 14). The difference between the current \$200 million figure and the prior \$400 million "guesstimate" assertedly results from the following factors:

1. A clearer definition from the NRC regarding the scope of the backfit work and anticipated negotiations with the NRC to reduce the scope of the backfit work based on industry experience has allowed Edison to better

estimate the cost of the backfit work that will be required.

2. Items from Table 3 of Edison's response to the OII are restart items and are not included in the revised \$200 million figure.
3. Item 8, "Purging and Venting System Valve Replacement and Debris Screen" of Table 5 of Edison's response to the OII has been evaluated as not needed and thus is not included in the "less than \$200 million" figure. The remaining items from Tables 4, 5, and 6 are included in the "less than \$200 million" figure based on anticipated scope reductions.
4. Enclosure 1 of the letter from Mr. Kenneth P. Baskin to Mr. H. R. Denton, dated February 27, 1984, provides the revised ILS (late-filed Exhibit 12). The items listed in Table 4 of Edison's response to the OII that are not included in the enclosure of the letter are as follows:

Table 4
Item No.

Description

2	Fire Protection Appendix R Safe Shutdown Modifications.
5	Diesel Generator Fans Automatic Loading.
6	SIS Annunciator Window Engraving.
8	Control Room Habitability, EVAC Upgrade.
10	System Voltage Degredation 4 kV Undervoltage Delays.
11	ECCS Single Failure Upgrade.
12	Nitrogen Supply for PORVs and FCV 1115 D, E, & F Safety Upgrade.
16	Environmental Qualification of Electrical Equipment.

The scope of Table 4, Items 5, 6, 8, 10, 11, and 16 are under negotiation with NRC and are to be resolved as part of SONGS 1's ILS program. Therefore, the \$200 million figure for completion of NRC backfit items does not reflect all of the possible costs which may need to be incurred over the remaining life of the SONGS 1 plant.

Extensive cross-examination of Fogarty concerned the reasons that restart dates were furnished which had not been met and the underlying reasons for the failure to meet such commitments. The responses to those inquiries indicated that Edison was aware that a firm startup date could not be advanced because it did not know precisely what plant modifications were required to meet the revised NRC seismic requirements. On February 8, 1984 (after the hearings in the initial phase of this proceeding were announced) the NRC issued its letter to Edison agreeing on the criteria applicable to the seismic modifications necessary to return SONGS 1 to normal operations. Based on that letter, Edison now believes a startup date of December 31, 1984 is reasonably certain.

Edison's witness Daniels presented in Exhibit 5 an evaluation of the economic viability of the restart and continued operation of SONGS 1, using a "break-even capital costs" method. The witness defined that term as the maximum capital expenditure that can be incurred for the restart and continued operation of SONGS 1 over its remaining useful life while remaining cost-effective to Edison's ratepayers when compared to obtaining firm capacity from other sources. The analysis applies to the maximum capital expenditures that can be economically justified subsequent to restarting SONGS 1.

Edison's estimated SONGS 1 break-even capital costs assuming capacity factors of 50, 65, and 80% are as follows:

Table 1

<u>SONGS 1 Capacity Factor</u>	<u>SONGS 1 Break-even Capital Costs (Present Value \$1984 \$) (Millions)</u>
50%	\$150
65%	\$335
80%	\$520

Edison has projected that SONGS 1 will operate at a capacity factor of 65% over its remaining useful life. Consequently, Edison asserts that it can incur up to \$335 million in capital expenditures for plant modifications contained in the ILS while maintaining the cost-effectiveness to Edison's ratepayers of the restart and continued operations of SONGS 1.

Late-filed Exhibit 14 contains Edison's estimates of backfit expenditures for each of the first three refueling outages following SONGS 1 restart, as follows:

Table 2

Southern California Edison Company
Estimate of ILS Backfit Expenditures for Each of the
 First Three Refueling Outages Following SONGS 1 Restart

<u>Backfit Projects*</u>	<u>Capital Costs**</u>			
	<u>Cycle IX***</u>	<u>Cycle X***</u>	<u>Cycle XI***</u>	<u>Total</u>
Three-Mile Island Modifications	14	2	8	24
Environmental Qualification	4	7	0	11
Fire Protection	2	4	0	6
Systematic Evaluation Program	12	15	14	41
Total	32	28	22	82
Projected Additional ILS Costs			Less than 100	
Total for ILS Integrated Backfit Program			Less than 200	

Notes:

*Items identified in Enclosure 1 of Edison's letter of February 27, 1984. Late-filed Exhibit 12.

**Costs shown in millions of undiscounted 1984 dollars.

***Planned outage dates are set forth in Enclosure 2 of Edison's letter of February 27, 1984. Late-filed Exhibit 12.

Edison states that the components of the \$200 million figure are shown for information as the exact level and pattern of spending cannot be forecast with accuracy. Edison believes that the overall result will be less than \$200 million.

Based on the results of its cost analysis, Edison concluded that the restart and continued operation of SONGS 1 is cost-effective to Edison's ratepayers. Based on its projected capacity factor for the remaining life of SONGS 1 and its estimate of capital expenditures of less than \$200 million necessary for completing

modifications related to the ILS, Edison states that its confidence in its conclusion that SONGS 1 operation is economically viable is evidenced by its decision to proceed with returning SONGS 1 to service by December 31, 1984.

Edison's witness Fogarty testified that SONGS 1 has established an exemplary operating record over its lifetime. As SDG&E's Haney testified, the plant has provided significant benefits to the ratepayers and is expected to continue to provide energy at beneficial cost to the ratepayers. Apart from strict economic benefits, Fogarty indicated certain noneconomic benefits of returning SONGS 1 to operation. Reductions in the emission of sulfur dioxide, nitrous oxide, and hydrocarbons is a benefit to all persons residing in the air quality-sensitive Southern California region. The witness asserted that the goal of a reliable power system performance is also enhanced by maintaining a mix of generation sources including SONGS 1, as such a mix lessens reliance upon unstable foreign oil supplies.

SDG&E presented testimony by Haney explaining the utility's position. SDG&E is opposed to removing SONGS 1 from its rate base because SONGS 1 has provided useful service and is expected to provide future useful service. Even if the unit were not returned to service, SDG&E believes continued rate base treatment should be considered because of past benefits to ratepayers and because of the financial implications on SDG&E of this and other issues before the Commission. The witness explained that removal of SONGS 1 from rate base will negatively impact SDG&E's financial position when considered in conjunction with the Tesoro fuel oil adjustment and disallowed construction costs for SONGS 2 and 3. According to the witness, if the Commission were to reach adverse decisions in all of those proceedings, the result could be potentially disastrous for SDG&E.

Staff Evidence

Staff evidence was presented by witnesses Randhawa, Long, and Czahar. The prepared testimony of witnesses Randhawa (Exhibit 7) and Long (attached Exhibits 8, 9, and 10) was prepared in advance of the hearing and attached to the staff motion. The prepared testimony of witness Czahar was prepared following Edison's direct presentation and contains recommendations and conclusions based, in part, on Edison's presentation.

Witness Randhawa

Witness Randhawa testified that (1) operation of SONGS 1 is now uncertain because of NRC concerns regarding the plant's seismic safety and because the work necessary for restart has not been fully defined, (2) Edison had not conducted any cost-effectiveness study on restarting or backfitting the plant to accommodate the NRC mandated plant modifications, (3) Edison had not completed its negotiations with NRC on its restart and integrated backfit schedule, and (4) it will take Edison approximately one year to make necessary plant modifications.

Based on the above, Randhawa recommended as follows:

1. The Commission should remove SONGS 1 from rate base.
2. Edison should be directed to record ownership cost of SONGS 1 in a deferred account.
3. Edison should not be allowed to recover ownership costs from rates.
4. Edison should be allowed to recover in rates all expenses necessary for SONGS 1 operation and maintenance during the shutdown period and should be allowed to recover decommissioning expense.
5. If and when SONGS 1 resumes commercial operation, Edison should be authorized to include SONGS 1 in its rate base along with all reasonable costs incurred for necessary capitalized modifications.

6. Edison should be required to seek our approval for performing any retrofit work not required for restart and for any retrofit work in excess of \$37.5 million for restart.
7. Edison should be required to demonstrate the cost-effectiveness of the proposed modifications.

Recommendations 1 through 5 also apply to SDG&E.

Witness Long

Witness Long presented testimony concerning the manner in which the deferred account mechanism should be accomplished.

Long recommended that the SONGS 1 capital costs currently in rate base should remain in the appropriate plant in service account (FERC Account 101), but should be excluded from rate base on the grounds that the used and useful criteria does not apply because of the uncertainty surrounding the future use of the unit, as discussed by Randhawa. He stated that this position is similar to the treatment adopted by this Commission for PG&E's Humboldt Bay Power Plant Unit 3 (Humboldt). Humboldt was shut down in 1976 for refueling and was never relicensed by the NRC. The Commission ordered the removal of Humboldt from Pacific Gas and Electric Company's (PG&E) rate base in D.91107 dated December 19, 1979 (2 CPUC 2d 596) and allowed PG&E to accrue the carrying costs associated with the plant in a memorandum account. The witness stated that SONGS 1 is in a similar situation to that prevailing for Humboldt at the time of D.91107, in that there is currently no clear indication as to when, if ever, SONGS 1 would return to service.

According to Long, the recommended rate treatment does not deprive Edison of the opportunity to collect carrying charges associated with SONGS 1, but rather places the company on notice that until the future of the plant is clarified, Edison's customers will not be required to pay a return on a plant which might never operate again on a commercial basis.

Long recommended that Edison should be allowed to continue recovering in base rates all operation and maintenance expenses necessary to keep SONGS 1 in operation while shutdown, including an allowance for the accrual of decommissioning costs; the disposition of other ownership costs (carrying cost of the plant) should be determined only after the future of the plant as a generating resource has been determined. Thus, that portion of Edison's return on rate base associated with SONGS 1 currently being billed by Edison should be deleted from base rate revenues, and carrying costs at the allowance of funds used during construction rate should be charged to a subaccount in the miscellaneous deferred debits account (FERC Account 186). Recovering any of the accrued carrying cost should be predicated upon the final disposition of SONGS 1 and recovery of the accrued ownership costs in Account 186. The foregoing recommendations also apply to SDG&E as a minority partner with Edison in SONGS 1.

The specific ordering paragraphs to accomplish Long's recommendations are set forth in Exhibit 19.

Long's Exhibit 9 shows the revenue effect of his proposal, as set forth in the following table:

Table 3
SONGS Unit 1
Ownership Costs Removed from Rate Base
Calendar Year 1984
(\$000)

	<u>SDG&E</u>	<u>Edison</u>		
California Jurisdictional Rate Base (Excluding Working Cash)	\$52,924	\$159,165		
Rate of Return	12.82%	12.65%		
After Tax	\$6,785	\$20,134		
Net To Gross	1.6937	1.6577		
Gross Revenues	\$11,492	\$33,376		
	<u>Distribution</u>	<u>Amount</u>	<u>Distribution</u>	<u>Amount</u>
<u>ERAM Effects</u>				
Collected in January	9.01%	\$1,035	8.28%	\$2,764
Collected in February	<u>8.40</u>	<u>965</u>	<u>7.82</u>	<u>2,610</u>
Total Collected in Rates	17.41	2,000	16.10	5,374
Amount to Adjust ERAM Base Rates	82.59%	\$9,492	83.90%	\$28,002

Long testified that his proposal would be fair because it would allow a carrying cost during the period of reconstruction to SONGS 1 prior to its return to service; the stockholders would recover the same type of carrying costs associated with other plant prior to its entering service; and the ratepayers would not be required to pay any costs of ownership until after SONGS 1 was operational again.

Witness Czahar

Witness Czahar's conclusions and recommendations are different from Randhawa's and Long's.

The witness testified that it appeared to him that a decision by us on whether to exclude SONGS 1 from rate base depends, in part, on how soon SONGS 1 will be restarted if it is economical to do so.

Based on his review of the testimony of Edison's witnesses Daniels and Fogarty, the computer model used to calculate the economic analysis prepared by Daniels, and the avoided cost assumptions assumed by Daniels, Czahar reached the following conclusions:

1. There are two distinct decision dates, that is the immediate decision concerning the incremental investment of \$37.5 million for restart on December 31, 1984, and
2. a decision date in mid-1986, at the end of the 15-month operational period under the fuel now in the reactor core. (The plant would be operable until April 1986 if restart began December 31, 1984 or before.)

The witness presented a calculation of the incremental costs and benefits to Edison's ratepayers if it expends an additional \$30 million (its share of the \$37.5 million estimated incremental restart cost) and restarts SONGS 1 on January 1, 1985, as shown below:

Table 4
 Analysis of Edison's Incremental Costs
 and Benefits of Restart of SONGS 1
 on January 1, 1985
 (Millions)

	<u>1985</u>	<u>1986</u>	<u>Total NPV 1/1/85</u>
Incremental Operating Costs			
O&M Expenses	\$27.1	\$19.2	\$39.2
A&G	6.5	4.3	9.2
Payroll Taxes	0.4	0.4	0.7
Nuclear Fuel (65% C.F.)	<u>13.6</u>	<u>7.3</u>	<u>17.7</u>
Total Incremental Costs	\$47.6	\$ 3.12	\$66.8
Incremental Benefits			
Avoided Costs (OIR 2)	\$136.6	\$78.9	\$182.8
Net Benefit			\$116.0

The witness stated that, based on the above, ratepayers would be better off by \$116 million in net present value (NPV) revenue requirements. Using Edison's 1.35 conversion factor used to convert NPV revenue requirement to capital expenditures, \$116 million converts to a maximum expenditure of \$86 million. Therefore, in his opinion, \$30 million of incremental expenditure appears to be well within the range of net benefits produced by running SONGS 1 for 15 months, even if the plant is abandoned after the unit is brought down for refueling. If a 50% capacity factor is assumed (rather than the 65% capacity factor in the above table) the NPV of nuclear fuel costs drops \$4.1 million and avoided cost benefits drop \$42.2 million, for a net decrease in benefits of \$38.1 million. Dividing by 1.35, the maximum justifiable capital expenditure is decreased to \$28.2 million. Therefore, the maximum acceptable incremental expenditure would be \$58 million, assuming an achieved capacity factor of 50% during the period January 1, 1985 through mid-1986.

Witness Czahar concluded that an additional \$37.5 million expenditure to bring SONGS 1 on line by January 1, 1985 is justified, based on Edison's estimates; should those estimates prove to be overly optimistic, ratepayers could be harmed if the net plant balance were to continue to earn a return beyond the date of this order. The witness, therefore, recommended we give respondents a choice. Either utility could elect to earn a return subject to refund until January 1, 1985 on the estimated \$30 million for Edison and \$7.5 million for SDG&E expenditure and related construction work in progress if SONGS 1 is running at full power on January 1, 1985.² If that startup date is missed, respondents would begin accruing (on January 1, 1985) a liability equal to each utility's average short-run avoided cost. The maximum accrued liability would be equal to the revenues collected on SONGS 1 from January 1, 1984 through December 31, 1984, and that accrued liability would be refunded to ratepayers. The witness estimated this maximum liability to be \$30 million for Edison.

In the alternative, either respondent could elect to remove SONGS 1 net plant from rate base and accrue interest at the same rate as the AFUDC until SONGS 1 operations resumes.

The witness stated that he believed the choices were both realistic and fair; should respondents choose to continue to include SONGS 1 in rate base, the risk of delay would be borne by stockholders, not ratepayers.

² The witness recommended that the Commission adopt a criterion for operation at full power of 200 consecutive hours as means of demonstrating that SONGS 1 is operating at full power, or, in the alternative, SONGS 1 would achieve an average capacity factor of 65% over a 30-day period.

Czahar also recommended that additional expenditures subject to rate base inclusion when SONGS 1 is restarted and brought back to full power be limited to \$37.5 million, plus accrued interest at the AFUDC rate. Any amount expended above such limit would continue to accrue interest at the AFUDC rate until a determination is made whether to permit investment of additional funds of ILS after the mid-1986 shut down for refueling.

The witness included in his analysis in Exhibit 11 two schedules which attempt to quantify the long-run operating risks should SONGS 1 not operate until 2003 (the end of its current license period). These analyses show, for example, that if ILS capital expenditures were \$200 million, SONGS 1 would have to stay on line until 1991, assuming a 65% capacity factor, and 1995 assuming a 50% capacity factor. The witness recommended that ILS expenditures should not be permitted to approach maximum amounts without guarantees that ratepayers would not bear the full risk for operational failures.

Position of Parties On
Issues in Initial Phase

The position of parties are as follows:

Staff

1. The Commission should order SONGS 1 to be removed from rate base. Exhibit 19 contains the specific ordering provisions for accomplishing this.

2. In the alternative, SDG&E and/or Edison should have the option of continuing to earn a return on the plant until January 1, 1985. If the plant does not go into service by then, the company choosing that option would accrue liabilities (see staff witness Czahar's Exhibit 11, A.9).

3. The Commission should permit Edison to continue work designed for restart of SONGS 1. Edison has estimated the cost of that work to be \$37.5 million (Exhibit 11, A.9). At that cost, the work is beneficial to ratepayers even if the plant only operates for an additional 18 months and then closes (Exhibit 11, A.7-A.9). Any amount exceeding that would not be included in rate base upon plant restart, until it was determined whether to invest additional in continued plant operation (Exhibit 7, A.8 and Exhibit 11, A.9).

4. The Commission should order Edison and SDG&E to file a comprehensive analysis of the cost benefits of further long-term modifications (those not needed for restart) to SONGS 1. The analysis should be filed only after the NRC has defined the scope of work required for future modifications.

5. Edison and SDG&E should be prohibited in making any modifications to SONGS 1 not needed for restart, until the Commission finds that such modifications are cost-effective.

Edison

Edison asks the Commission to find:

1. SONGS 1 will be returned to service in a reasonable time.
2. SONGS 1 is used and useful.
3. Modifications necessary for the restart and continued operation of SONGS 1 are cost-effective and in the best interests of Edison's ratepayers.

SDG&E

1. SONGS 1 should remain in rate base, as both staff and Edison have shown that is cost-effective and beneficial to the ratepayers to restart the unit, and as Edison and the NRC have reached agreement on the work necessary for restart, eliminating previous "uncertainty."

2. Ratepayers have benefited and will continue to benefit from operation of SONGS 1. However, if the Commission considers removal of the unit from rate base, it should provide respondents the options offered by staff witness Czahar, modified to provide for carrying costs at the authorized rate of return rather than the inappropriate AFUDC rate.

TURN

1. The Commission should issue an order removing all ownership and operating costs of SONGS 1 from the rates of Edison and SDG&E.

2. Edison and SDG&E should be ordered to file applications to abandon SONGS 1 seeking recovery only of reasonable costs associated with the plant.

3. If the Commission rejects number 2. above, all costs associated with SONGS 1 should be placed in memorandum accounts with the stipulation that neither Edison nor SDG&E shall be allowed to record any carrying or AFUDC costs in the account.

Sierra Club

1. Immediately remove SONGS 1 from the respondents' rate bases.

2. Make all future SONGS 1 modifications subject to prior Commission approval after respondents submit a cost-effectiveness study as suggested by staff witness Randhawa including:

a. Preliminary engineering work.

b. Design work and engineering studies (all based upon NRC approved criteria and factors).

3. Keep all currently completed or in progress modifications out of rate base until the above decision is made.

City

1. SONGS 1 should be removed from the rate bases of Edison and SDG&E until SONGS 1 is restarted and operating at 90% of full power.

2. Record the ownership costs of SONGS 1 in a deferred or memorandum account.

3. Require Edison to seek Commission approval to perform any retrofit work not required for restart and for any retrofit work in excess of \$37.5 million for restart.

4. Hold additional hearings to determine to what extent rates should be adjusted to reflect changes in depreciation expense, operating and maintenance expense, and tax expense.

5. Hold additional hearings to determine the accounting and ratemaking treatment for the steam generator repairs at SONGS 1 authorized in D.82-12-055.

Discussion

The following discussion covers the issues raised in the staff's motion and addressed in the initial phase of this proceeding:

Is SONGS 1 "Used and Useful"

Several of the parties urge that SONGS 1 should be removed from rate base (or the plant should be abandoned) on this basis that SONGS 1 is no longer used or useful. Staff witnesses Randhawa and Long draw an analogy between the conditions at Humboldt when PG&E's plant was removed from rate base in D.91107, and conditions existing at SONGS 1, and ask that the same rate treatment be accorded SONGS 1.

D.91107 recites the following. Humboldt had been shut down for three years for refueling and seismic modifications. NRC had refused to authorize resumption until seismic work was completed. D.91107 (2 Cal 2d 596 at 624 and 625) states as follows:

"PG&E's showing in this proceeding, with regard to Humboldt, was far short of convincing. The testimony and cross-examination not only failed to support PG&E's conclusion that the facility would be back 'on stream' during the 1980-81 period, but also raised serious doubt as to whether it will ever resume commercial operation. Humboldt has now been shut down for three years, and continues to be plagued by a

variety of problems. During this period, PG&E rates have been set upon the assumption that Humboldt was temporarily out of service, but continued to be 'used and useful' for utility operation. In view of the great uncertainty that is now apparent with respect to when, and in fact if ever, Humboldt will resume operation, it is no longer appropriate for PG&E's ratepayers to shoulder this economic burden. We are, by this decision excluding Humboldt from PG&E's rate base.

"Until the future of the plant is clarified, PG&E shall record all capital costs associated with the facility in a memorandum account as recommended by the staff. We caution, however, that any additional capital expenditures on Humboldt will be viewed by this Commission critically, and will be made entirely at the company's risk.

"In the interests of public safety, we will allow PG&E to recover on-site maintenance and operating expenses for the present time. We are, however, ordering PG&E to conduct a thorough review of the future commercial potential of the plant and to submit to the Commission, within 6 months' time, a report demonstrating why the Commission should not disallow all expenses which could have been avoided through earlier decommissioning."

There is not a direct parallel between SONGS 1 and Humboldt, as stated by staff witnesses Randhawa and Long. While there has been a long outage at SONGS 1, there appears to be a reasonable indication that SONGS 1 will resume operations. The evidence indicates that Edison and NRC have reached agreement on the extent and nature of the seismic and other plant modifications that must be completed for restart of SONGS 1; Edison has provided an estimate of the additional cost for such modifications; and Edison has furnished an anticipated startup date based on the agreement. The evidence indicates if the estimated additional costs of \$37.5

million are not exceeded and SONGS 1 restarted on the anticipated date, the startup and operation of SONGS 1 through the initial fuel cycle after startup will be beneficial to respondents' ratepayers.

Absent contrary evidence we will conclude that SONGS 1 will be operative on the anticipated date and under the conditions assumed by Edison. Therefore, we cannot categorically find that SONGS 1 will not be used and useful in the future. However, because the plant has not operated over a long period of time, and as Edison has furnished us no guarantees of future operation under the conditions it assumes, it is only reasonable that we exercise our regulatory duty to Edison's ratepayers by providing for ratepayer protection in the event SONGS 1 does not return to operation upon the date and under the conditions assumed by Edison.

Based on the foregoing, we will not adopt TURN's proposal that respondents be directed to file applications seeking abandonment of SONGS 1. As explained above, the record indicates that ratepayers will benefit from restart of SONGS 1 (at least through its initial 15 months of operation), if additional modification costs are held to those estimated by Edison, and SONGS 1 is restarted on the anticipated date of January 1, 1985.

The staff and other parties argued that, as SONGS 1 has been out of service for several years and as it will not operate before January 1, 1985, it is not currently used and useful; therefore, SONGS 1 should immediately be removed from rate base. We do not agree that SONGS 1 should be removed from rate base for that reason.

The evidence shows that the principal reason for the long shutdown is the need to conform the plant to NRC's current seismic standards. The difficulty experienced by Edison in complying with NRC's seismic regulations were primarily a settlement of the extent

of and criteria for the work that would meet NRC's current standards. Those standards are more stringent than the NRC standards in effect when the plant was built. Similarly, backfit modifications for TMI and fire protection are more stringent standards than those under which the plant was built. We would have to find that Edison failed in its duty to the public in keeping the plant idle while it and the NRC were reaching agreement on these issues in order to find justified the removal of SONGS 1 from rate base because the plant is not currently in use. Certainly it is in the public interest that nuclear power plants attain the highest degree of safety. Therefore, the extended plant outage necessary to achieve that high safety standard was not inappropriate.

Conditions for Initial Startup

Staff witness Czahar proposed two options with respect to initial startup. One option would permit respondents to elect to remove their portion of SONGS 1 from rate base and to accrue an allowance for AFUDC until full power SONGS 1 operations resume. SDG&E argued for retention of this option.

The other option would permit respondents to earn a return on SONGS 1 subject to refund until January 1, 1985, subject to a cap on modification costs and a repayment feature should SONGS 1 fail to begin full power operations (200 consecutive hours at 90% of capacity or 30 days' operation at 65% capacity) by January 1, 1985. This option would provide Edison a reasonable opportunity to bring the plant back on line on a timely basis at its anticipated cost. If the timely startup does not occur, or if estimated costs are exceeded, Czahar's proposal protects respondents' ratepayers.

The plan is fair to Edison, as Edison's witnesses testified that Edison fully expects to meet all the conditions imposed. We will make one modification, however, to give the Commission some flexibility in the startup date, particularly as it may affect the future capacity level of plant operation. For good cause, the Commission may extend the January 1, 1985 startup date for up to one additional month.

We cannot agree with SDG&E arguments concerning the possible cumulative effect on earnings and cost of capital of what it perceives to be adverse decisions in this, SONGS 2 and 3, and its Tesoro proceeding.³ While SDG&E does not control the operation of SONGS 1, it is an active partner in that plant and has reaped the benefits of low-cost energy produced by SONGS 1. SDG&E's ratepayers should bear no greater risk for failure of SONGS 1 to operate on a timely basis than Edison's ratepayers. If SDG&E elects to place plant investment costs in a memorandum account, that account should be subject to the lower AFUDC rate rather than SDG&E's rate of return.

We will authorize respondents to elect either of the above options inasmuch as SDG&E may wish to act differently from Edison.

Conditions under which ILS
Modifications may be Made

The record is not clear with respect to the cost-effectiveness of future ILS modifications. Edison and NRC have not reached full agreement on the scope of the modifications necessary to meet current NRC standards. The record indicates that agreed-to ILS modifications will be less than \$200 million, but the scope of some modifications have not been defined and those costs will be in addition to the \$200 million figure. Moreover, subsequent events may require additional modifications unknown at this time.

It appears that the agreed-to ILS modifications costing less than \$200 million will be cost-effective over the expected remaining life of the plant, but more information is required to confirm the initial information shown. Under staff witness Czahar's proposal, we would pass on the cost-effectiveness of additional ILS modifications after restart, but before costly ILS changes are

³ We take official notice of the fact that SDG&E's bond, debt, and stock issues were accorded higher ratings by Moody's Investors Service, Inc. and Standard & Poor's Corp. on April 3, 1984.

actually made. This program will give us continuous oversight over SONGS 1 operations, will encourage Edison to reach prompt agreement with NRC concerning the scope and cost of future ILS changes, will permit us to pass on such expenditures before they are made, and will minimize ratepayers' exposure resulting from excessive modification costs or prolonged shutdowns.

Therefore, we will adopt a program under which we will order respondents to file a comprehensive analysis of the ILS modifications to SONGS 1 (those not needed for restart). This analysis should be filed prior to commencing ILS or other modifications to SONGS 1 (other than those necessary for restart or underway on the effective date of this decision) and should reflect the scope of the work required for future modifications as defined by the NRC. Respondents will be prohibited from earning AFUDC or including in rate base any modifications not needed for restart until we find that such modifications are cost-effective.

Interested parties (other than TURN) agree with the foregoing. TURN would have all costs associated with SONGS 1 placed in memorandum accounts without provision for those accounts earning at respondents' rate of return or AFUDC rate. We do not believe that such treatment is fair to respondents' shareholders nor necessary to protect respondents' ratepayers. Such treatment would remove any incentive for respondents to return SONGS 1 to full operation and, thus, may prematurely remove an economic resource beneficial to California electric consumers.

Findings of Fact

1. SONGS 1 is an electric power generating facility jointly owned by Edison and SDG&E. Edison owns 80% and SDG&E owns 20% of the facility. Edison is operator of the facility.

2. SONGS 1 has been out of service since February 22, 1982. At that time, the decision was made by Edison to shut down the unit to complete NRC backfit modifications relating to seismic, TMI, and fire protection modifications.

3. On October 15, 1983, we instituted this proceeding to investigate the uncertainty with respect to when SONGS 1 would resume normal commercial operation to determine whether the unit should remain in rate base.

4. The OII in this proceeding directed respondents to file a report which explained the current status of SONGS 1, including responses to questions propounded in the OII. That report, filed by Edison on November 14, 1983, was received as Exhibit 1.

5. On February 1, 1984, the staff filed its motion to remove SONGS 1 from the respondents' rate bases. The staff motion recommended expeditious hearing for the purpose of considering its proposal.

6. Public hearing was held, limited to issues raised by the staff motion, at which respondents, staff, and interested parties had opportunity to appear and be heard. The evidence showed the following.

7. As a result of ongoing seismic evaluations, certain modifications had been identified as necessary to meet the NRC's .67g criteria and Edison intended to perform these seismic modifications during the outage.

8. In July 1982 the NRC issued new guidelines for seismic analysis different from the criteria Edison had been using. As a result Edison decided to slow the seismic field work until final resolution with the NRC was achieved.

9. On February 8, 1984 the NRC agreed by letter with the criteria proposed by Edison for restart.

10. Having reached agreement with the NRC, Edison estimates that it is now possible to complete the seismic upgrade work for restart of the plant at a total cost of approximately \$37.5 million.

11. The plant is expected to return to service by December 31, 1984.

12. After SONGS 1 has been restarted, Edison plans to complete the work necessary to accomplish the remaining NRC required backfit work including TMI modifications, environmental qualification, fire protection, and SEP work.

13. Edison and the NRC are currently attempting to resolve the scope and timing of this work through an ILS program which will provide for completion of the work during future refueling outages.

14. In August 1983, the NRC accepted the methodology Edison proposes to use to establish an ILS backfit program.

15. At the end of 1983, Edison submitted its proposed ILS to NRC. The NRC responded in January 1984 affirming the methodology but rejecting Edison's proposed schedule.

16. Edison subsequently revised the schedule and submitted the new ILS proposal to the NRC on February 27, 1984.

17. Edison anticipates that the work associated with the ILS backfit program will cost less than \$200 million. Not all the work which may be required is included in Edison's cost estimate.

18. Respondents expect SONGS 1 to restart at the end of 1984 after completion of the NRC agreed seismic work. All other NRC known required modifications will be completed throughout the ILS schedule at an anticipated cost of less than \$200 million.

19. Edison's economic analysis shows that a present value of capital expenditures of approximately \$335 million, subsequent to the restart of SONGS 1, is cost-effective to Edison's ratepayers. Edison's analysis shows that the ILS modifications will be cost-effective as presently planned.

20. Data presented by witness Czahar showed that it is beneficial to the ratepayers to complete the seismic work and restart the unit. The staff analysis shows that ratepayers would be better off by \$116 million if the unit were to be restarted, and that the the maximum cost-effective capital expenditure is \$86 million, well above \$37.5 million to restart the unit.

21. An additional \$37.5 million expenditure to bring SONGS 1 on line by January 1, 1985 is justified.

22. All of the economic analyses presented illustrate that it is cost-effective and beneficial to the ratepayers to restart SONGS 1.

23. Edison's analysis also shows that it may be beneficial and cost-effective to the ratepayers to pursue the ILS modifications as currently proposed by Edison to the NRC under Edison's assumptions not fully tested on this record.

Conclusions of Law

1. Edison and NRC have reached agreement on the criteria for seismic and other plant modifications necessary for restart of SONGS 1.

2. Under the agreed upon criteria Edison plans to complete the modifications necessary for NRC approval of restart of SONGS 1 about January 1, 1985 at an incremental cost of \$37.5 million.

3. The expenditure of \$37.5 million would be cost-effective if SONGS 1 operates only through the initial 15-month period until its next shutdown for fuel replacement.

4. Respondents' ratepayers will benefit from restart of SONGS 1 under such conditions.

5. Based on the two prior conclusions, immediate closure and abandonment of SONGS 1 is not reasonable nor beneficial to respondents or their ratepayers.

6. A prima facie showing was presented to indicate that it may be cost effective to complete ILS plant modification necessary for long-term operations.

7. We should encourage cost-effective modifications to SONGS 1 that will permit it to operate as a viable generation resource.

8. As modified to give the Commission some flexibility in the startup date, the program advanced by staff witness Czahar concerning ratemaking conditions under which SONGS 1 may be restarted and may operate after restart, is reasonable and justified, and will be fair to respondents and to their ratepayers.

9. We should adopt the program specifically set forth in the order which follows.

10. This proceeding should be kept open for receipt of further evidence on issues not considered herein.

INTERIM ORDER

IT IS ORDERED that:

1. Southern California Edison Company (Edison) and San Diego Gas & Electric Company (SDG&E) (respondents) shall elect within 15 days after the effective date of this order whether to immediately remove San Onofre Nuclear Generating Station Unit 1 (SONGS 1) from their respective rate bases as provided in Ordering Paragraph 2, or shall elect to follow the procedures set forth in Ordering Paragraph 3. (Edison and SDG&E need not make the same election.)

2. If Edison or SDG&E elects to remove SONGS 1 from its rate base it shall comply with the following:

- a. Respondent shall reduce its authorized base revenue amount currently in effect for calendar year 1984 in its electric revenue adjustment mechanism (ERAM) by \$33,376,000 for Edison or \$11,492,000 for SDG&E to remove the costs of ownership of SONGS 1 from authorized base rates.
- b. Respondent shall make the appropriate adjustment to its electric revenue adjustment billing factors in conjunction with its next scheduled revisions to ERAM.

- c. The effect of this reduction shall be reflected in the months of April through December 1984 and shall not cause an overcollection attributable to ERAM collectible base revenues for periods prior to the effective date of this order.
- d. On the effective date of this order, respondent shall accrue as a deferred debit the carrying costs of the monthly depreciated plant-in-service book value of its investment in SONGS 1 using its rate for the allowance for funds used during construction. This accrual shall continue until one of three events occur: (1) SONGS 1 returns to full commercial operations (200 consecutive hours at 90% of capacity or 30 days continuing operation at 65% of capacity); (2) respondent(s) file(s) an application to decommission SONGS 1; or (3) the Commission orders the accrual stopped.

3. If Edison or SDG&E does not elect to comply with Ordering Paragraph 2, it shall comply with the following:

- a. Respondent shall establish a SONGS 1 balancing account.
- b. Revenues collected by respondent pursuant to its last general rate proceeding (under which rates were made subject to refund) related to return on investment on SONGS 1 (excluding common plant) and the associated income taxes from January 1, 1984 through the date SONGS 1 returns to full service (200 consecutive hours at 90% of capacity or 30 days continuing operation at 65% of capacity), or the effective date at which SONGS 1 is removed from rate base by further order of the Commission, shall be credited to the SONGS 1 balancing account. Operation and maintenance expenses for SONGS 1 shall not be subject to balancing account treatment.
- c. Should SONGS 1 fail to return to service by January 1, 1985, or by February 1, 1985, should the Commission decide for good cause to extend the return to service date by up to one month, respondent shall begin to accrue a liability equal to the difference between actual kilowatt-hours (kWh) generated and the kWh that would have been generated by SONGS 1 if it had reached a monthly capacity factor of 65% multiplied by respondent's

average short-run avoided cost (energy plus capacity). That amount shall be credited to Account 253 (Other Deferred Credits). The offsetting charge shall be charged to the SONGS 1 balancing account.

- d. Should the charges to the SONGS 1 balancing account equal or exceed the revenue credits to the SONGS 1 balancing account for revenues collected from January 1, 1984 through December 31, 1984, respondent shall:

- (1) Cease the accrual of the liability.
- (2) Inform the Commission's Executive Director in writing.
- (3) Continue to credit revenues until SONGS 1 is out of rate base.
- (4) File an advice letter to remove SONGS 1 from rate base, reduce rates, and start accruing allowance for funds used during construction.
- (5) Refund all revenues credited to the balancing account within 30 days after the effective date of the advice letter. Refunds should include interest at the balancing account rate on all revenues collected from January 1, 1984 to the date of refund.

- e. Should SONGS 1 return to full service as defined in Ordering Paragraph 3.b, when the charges to the SONGS 1 balancing account are less than the revenue credits to the SONGS 1 balancing account for revenues collected from January 1, 1984 through December 31, 1984, respondent shall:

- (1) Cease the accrual of the liability.
- (2) File a letter with the Commission setting out the accounting entries to clear the net revenues remaining in the balancing account.

4. The incremental expenses for SONGS 1 plant modifications incurred after the effective date of this order shall not exceed \$37.5 million, except upon further approval by this Commission.

5. Respondents shall seek further approval of this Commission for plant modifications required under the Nuclear Regulatory Commission's Integrated Living Schedule before commencing such modifications.

6. This proceeding shall remain open for the receipt of further evidence.

7. This interim order resolves the threshold issue of whether SONGS 1 should be immediately removed from rate base and holds the proceeding open for further hearing.

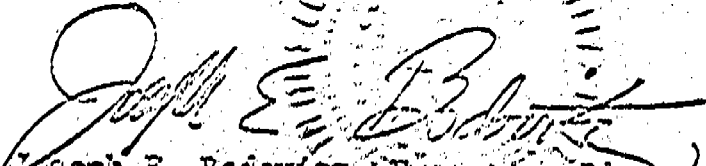
This order is effective today.

Dated May 4, 1984, at San Francisco, California.

LEONARD M. GRIMES, JR.
President

VICTOR CALVO
PRISCILLA C. GREW
DONALD VIAL
WILLIAM T. BAGLEY
Commissioners

I CERTIFY THAT THIS DECISION
WAS APPROVED BY THE ABOVE
COMMISSIONERS TODAY.


Joseph E. Bodovitz, Executive Director

Czahar also recommended that additional expenditures subject to rate base inclusion when SONGS 1 is restarted and brought back to full power be limited to \$37.5 million, plus accrued interest at the AFUDC rate. Any amount expended above such limit would continue to accrue interest at the AFUDC rate until a determination is made whether to permit investment of additional funds of ILS after the mid-1986 shut down for refueling. ✓

The witness included in his analysis in Exhibit 11 two schedules which attempt to quantify the long-run operating risks should SONGS 1 not operate until 2003 (the end of its current license period). These analyses show, for example, that if ILS capital expenditures were \$200 million, SONGS 1 would have to stay on line until 1991, assuming a 65% capacity factor, and 1995 assuming a 50% capacity factor. The witness recommended that ILS expenditures should not be permitted to approach maximum amounts without guarantees that ratepayers would not bear the full risk for operational failures.

Position of Parties On
Issues in Initial Phase

The position of parties are as follows:

Staff

1. The Commission should order SONGS 1 to be removed from rate base. Exhibit 19 contains the specific ordering provisions for accomplishing this.

2. In the alternative, SDG&E and/or Edison should have the option of continuing to earn a return on the plant until January 1, 1985. If the plant does not go into service by then, the company choosing that option would accrue liabilities (see staff witness Czahar's Exhibit 11, A.9).

6. A prima facie showing was presented to indicate that it may be cost effective to complete ILS plant modification necessary for long-term operations.

7. We should encourage cost-effective modifications to SONGS 1 that will permit it to operate as a viable generation resource.

8. As modified to give the Commission some flexibility in the startup date, the program advanced by staff witness Czahar concerning ratemaking conditions under which SONGS 1 may be restarted and may operate after restart, is reasonable and justified, and will be fair to respondents and to their ratepayers.

9. We should adopt the program specifically set forth in the order which follows.

10. This proceeding should be kept open for receipt of further evidence on issues not considered herein.

INTERIM ORDER

IT IS ORDERED that:

1. Southern California Edison Company (Edison) and San Diego Gas & Electric Company (SDG&E) (respondents) shall elect within 15 days after the effective date of this order whether to immediately remove San Onofre Nuclear Generating Station Unit 1 (SONGS 1) from their respective rate bases as provided in Ordering Paragraph 2, or shall elect to follow the procedures set forth in Ordering Paragraph 3. (Edison and SDG&E need not make the same election.)

2. If Edison or SDG&E elects to remove SONGS 1 from its rate base it shall comply with the following:

- a. Respondent shall reduce its authorized base revenue amount currently in effect for calendar year 1984 in its electric revenue adjustment mechanism (ERAM) by \$33,376,000 for Edison or \$11,492,000 for SDG&E to remove the costs of ownership of SONGS 1 from authorized base rates.
- b. Respondent shall make the appropriate adjustment to its electric revenue adjustment billing factors in conjunction with its next scheduled revisions to ERAM.

average short-run avoided cost (energy plus capacity), ~~as used by Edison in this proceeding.~~ That amount shall be credited to Account 253 (Other Deferred Credits). The offsetting charge shall be charged to the SONGS 1 balancing account. | Kn

- d. Should the charges to the SONGS 1 balancing account equal or exceed the revenue credits to the SONGS 1 balancing account for revenues collected from January 1, 1984 through December 31, 1984, respondent shall:

- (1) Cease the accrual of the liability.
- (2) Inform the Commission's Executive Director in writing.
- (3) Continue to credit revenues until SONGS 1 is out of rate base.
- (4) File an advice letter to remove SONGS 1 from rate base, reduce rates, and start accruing allowance for funds used during construction.
- (5) Refund all revenues credited to the balancing account within 30 days after the effective date of the advice letter. Refunds should include interest at the balancing account rate on all revenues collected from January 1, 1984 to the date of refund.

- e. Should SONGS 1 return to full service as defined in Ordering Paragraph 2, when the charges to the SONGS 1 balancing account are less than the revenue credits to the SONGS 1 balancing account for revenues collected from January 1, 1984 through December 31, 1984, respondent shall:

- (1) Cease the accrual of the liability.
- (2) File a letter with the Commission setting out the accounting entries to clear the net revenues remaining in the balancing account.

4. The incremental expenses for SONGS 1 plant modifications incurred after the effective date of this order shall not exceed \$37.5 million, except upon further approval by this Commission.

5. Respondents shall seek further approval of this Commission for plant modifications required under the Nuclear Regulatory Commission's Integrated Living Schedule before commencing such modifications.

6. This proceeding shall remain open for the receipt of further evidence.

This order is effective today.

Dated MAY 2 1984, at San Francisco, California.

LEONARD M. GRIMES, JR.
President

VICTOR CALVO
PRISCILLA C. GREW
DONALD VIAL
WILLIAM T. BAGLEY
Commissioners