

CALIFORNIA COASTAL COMMISSION

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**W14b**

Energy and Ocean Resources Unit

Staff: SMH—SF

Staff Report: March 1, 1996

Hearing Date: March 13, 1996

Item Number: 14b

Commission Action/Vote:

Work Plan and Budget Approval
Evaluation of Edison's New Data and Analyses on Giant Kelp

I. Staff Recommendation

As part of the staff's ongoing effort to work with Southern California Edison to resolve permit amendment issues, the staff recommends that the Commission approve a work plan and budget for the staff's evaluation of the data, analyses, and conclusions used by Edison to support its proposed changes to permit 6-81-330 to reduce the mitigation requirements addressing adverse impacts on the San Onofre kelp forest community from the operation of San Onofre Nuclear Generating Station (SONGS) Units 2 and 3. Funding would be provided by Edison, in accordance with the Commission's *Resolution to Terminate the Existence of the Marine Review Committee for SONGS*. The budget of \$87,900 is separate from and supplemental to the 1996 budget approved by the Commission in November 1995.

II. Motion and Resolution

The action before the Commission to approve a work plan and budget for the staff's evaluation of Edison's kelp data, analyses, and conclusions shall be decided by the following motion:

I hereby move that the Commission approve the work plan and budget recommended by the staff for the staff to evaluate the kelp data, analyses, and conclusions used by Edison to support its proposed changes to the permit mitigation requirements.

The staff recommends a "yes" vote on the foregoing motion, which will result in the adoption by the Commission of the following resolution:

The Commission hereby determines that the work plan and budget set forth in this staff recommendation, dated March 1, 1996, meets the intent of the *Resolution to Terminate the Existence of the Marine Review Committee for SONGS* (dated December 3, 1993), requiring the permittee to provide funding to the Commission for its consultation with technical experts to assess Southern

California Edison's data, analyses, and conclusions used to support its proposed changes to permit 6-81-330 to reduce the mitigation requirements addressing adverse impacts on the San Onofre kelp forest community from the operation of SONGS Units 2 and 3.

III. Background and Justification for Funding

In September 1995, Southern California Edison¹ sought to amend the permit (6-81-330) for the SONGS Units 2 and 3. The staff reviewed the amendment request and determined that the proposed amendments did not meet the criteria for acceptance contained in the Commission's regulations. On October 12, 1995, the executive director of the Commission informed Edison that he was rejecting the amendments for processing. At its November 15, 1995 meeting, the Commission did not overturn the executive director's decision to reject the permit amendment, but did direct the staff to continue to work with the applicants on amendments that the staff finds acceptable and reasonable.

One of the changes proposed by Edison was to replace the requirement for creating 300 acres of kelp reef with a new condition that would require Edison to build a 12 acre experimental kelp reef, which would be monitored by Edison for a 10-year period. Edison sought this amendment based on its reevaluation of the adverse impacts from SONGS on kelp.

During January and February, the staff has communicated with Edison on its proposal for a "peer review" process to resolve the scientific dispute on the kelp impacts. Edison suggested that a review panel be put in place and asked to determine whether Edison's reevaluation studies are "technically credible and whether the conclusions reached are valid (namely, that the effects of SONGS on the San Onofre Kelp Bed are substantially different and less than those reported by the Marine Review Committee in its final report to the Commission in 1989)."²

The staff is willing to go along with an independent panel of scientists to review existing data to evaluate the impacts of SONGS on offshore kelp resources provided that the staff and Edison can agree upon the ground rules and the charges to the panel, as outlined in the executive director's February 23, 1996 letter to Edison (attached hereto as Exhibit A). These include funding for the staff's evaluation of the kelp data, analyses, and conclusions used by Edison to support its proposed changes to the permit mitigation requirements.

The staff's request for such funds is made pursuant to the *Resolution to Terminate the Existence of the Marine Review Committee for SONGS* (dated December 3, 1993), in which the Commission stated that "[s]hould Edison propose a modification to [the permit], Edison shall also fund the Coastal Commission's consultation with

¹ Southern California Edison is the majority owner of SONGS. San Diego Gas and Electric, the City of Anaheim and the City of Riverside are part-owners. Edison is the operating agent for the other three owners.

² M. Hertel letter to Peter Douglas, February 1, 1996.

technical experts the Commission believes is necessary to evaluate such a proposal." The staff believes such consultation is warranted because (1) the staff's evaluation of the data is compelled by Edison's proposed changes to the permit and (2) the staff's evaluation of the data should be made available to the independent scientific panel just as Edison's evaluation and input is being made available in order to fully address significant technical issues raised in Edison's data and analyses.

IV. Work Plan Introduction

As noted above, one of the changes proposed by Edison in September was to replace Special Condition C (establishment of a 300 acre kelp reef and independent monitoring of performance for the operational life of SONGS Units 2 and 3) with a 12 acre experimental kelp reef, which would be monitored by Edison for a 10-year period. The suggested change was based on the results contained in two reports produced by Edison, which argue that the effects of SONGS on the San Onofre Kelp forest (SOK) are less than those estimated by the Marine Review Committee (MRC). One report, entitled *Reevaluation of the SONGS Related Changes in Kelp at San Onofre*, by T.A. Dean and L.E. Deysher (June 22, 1995), claims that the level of adverse impacts from SONGS on kelp within SOK has 'diminished substantially, from a decline of 80 hectares estimated by the MRC (MRC 1989) to a decline of 29 hectares (Dean and Deysher 1995). A second report, entitled *Enhancement of Kelp Nitrogen Contents by the Discharge of a Coastal Power Plant*, by A.E. Jahn, W.J. North, J.B. Palmer, and R.S. Grove (March 1995), argues that SONGS-induced upwelling increased nutrient levels to parts of the San Onofre kelp bed, which "[o]ver time...might counterbalance the effects of reduced kelp recruitment (MRC 1989) correlated with the turbidity of the plume."

The need for staff to fully evaluate the kelp data is apparent from the results of brief reviews of the reports conducted by the staff and consultants specifically hired (in 1995) to review these reports. These reviews concluded that there are significant technical issues that require resolution before claims of a decrease in the level of adverse impacts from SONGS on SOK can be evaluated. For example, Edison's new estimate of change in kelp abundance in SOK, which purports to use the same data and methods as those used by the MRC (Dean and Deysher 1995), is about 20 percent smaller than the estimate arrived at by the MRC (1989). A difference of such magnitude must be resolved before using the new data in any consideration of Edison's proposed changes to the permit conditions.

V. Work Plan Objectives

The objective of this work plan is to evaluate the data, analyses, and conclusions used by Edison to reevaluate the adverse impacts of SONGS on the kelp forest community. The work will include an evaluation of Edison's two reports and findings on changes in the magnitude of impacts to kelp in SOK. In addition to administration and scientific oversight by the Commission scientists and the established

Scientific Advisory Panel, the work plan will require completion of five main tasks, to be undertaken by technical consultants.

1. Acquisition of Edison data.
2. Quality control and assessment of all data (raw data as well as derived data) using the same standards as those used in the previous MRC studies.
3. Database establishment using the same software (i.e., SAS) employed in the MRC studies.
4. Data analyses and interpretation including comparing databases generated by MRC routines to those generated by Edison, as well as comparing results of analyses using these databases.
5. Completion of a final report.

VI. Data Needs

In order to complete the tasks described above, the staff must have the information contained in Dean and Deysher (1995) and Jahn et al. (1995), as well as all of the raw and derived data and databases, equations, programs, and methods used in preparing these reports. Some of these data have recently been provided by Coastal Resources Associates (letter of February 5, 1996); however, other data are still needed to complete the staff's evaluation, including: (1) *all* raw data on downlooking sonar estimates of kelp abundance (1982-present); and (2) *all* raw data on sidescan sonar estimates of kelp abundance and substrate composition and area (1978-present) including all substrate maps.

The staff anticipates completing the evaluation within 5 months after receiving all of the necessary raw data, databases, and programs.

VII. Estimated Budget

The budget detailed below shows the estimated costs for the technical assistance required to complete the tasks outlined in the work plan. It is important to note that this work to evaluate the new data collected by Edison is in addition to and separate from the 1996 SONGS work program. The work requires outside technical assistance and separate, supplemental funds to pay for that assistance. The extent and cost of this outside technical assistance are shown in the estimated budget.


Estimated Budget

Task	Cost Basis	Cost Estimate
1. Data Acquisition	N/A	0
2. Quality assessment and control	40 hrs @ \$100/hr 100 hrs @ \$65/hr 100 hrs @ \$35/hr	4,000 6,500 3,500
3. Database establishment	40 hrs @ \$100/hr 80 hrs @ \$65/hr 80 hrs @ \$35/hr	4,000 5,200 2,800
4. Analysis & Interpretation	150 hrs @ \$100/hr 280 hrs @ \$65/hr 100 hrs @ \$35/hr	15,000 18,200 3,500
5. Reporting	80 hrs @ \$100/hr 80 hrs @ \$65/hr 40 hrs @ \$35/hr	8,000 5,200 1,400
6. Scientific Advisory Panel ³	100 hrs @ \$106/hr	10,600
TOTAL NOT TO EXCEED		\$87,900

³ The task of evaluating Edison's new data and analyses on kelp is outside the scope of permit 6-81-330. Time allocated for members of the Scientific Advisory Panel is specific to this extra task and is in addition to time allocated for providing technical and scientific advice to the Commission on the other work for the SONGS mitigation program.

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EXHIBIT NO. A
APPLICATION NO.
SONGS Kelp
Evaluation
 California Coastal Commission



February 23, 1996

Michael Hertel
Southern California Edison Company
P.O. Box 800-2244
Rosemead, CA 91770

Dear Mike:

This letter is in response to your suggestion that an independent panel of scientists be established to review existing data to evaluate the impacts of SONGS on offshore kelp resources. Although we are not opposed to the idea, this is precisely the task assigned the MRC and on which it spent considerable time and resources to arrive at its conclusion. Nevertheless, in the spirit of attempting to find a solution to the current impasse, we are willing to go along with the approach you have suggested, provided that we agree on the ground rules.

First, we need to have in hand all of the raw data your consultants collected relative to the kelp forest and we need the financial resources so that our scientists can evaluate that data to provide our input to the independent scientific panel. It is our intention to take a proposed budget amendment to the Commission at the March meeting to ensure the availability of the necessary funds to complete this evaluation. I remind you that SCE agreed to provide this type of support at the time the MRC was terminated.

Second, in order to ensure the independence, objectivity, credibility and expertise of the members of the panel, all three members need to be selected by consensus between SCE and Commission staff. In order to save costs and enhance logistics, I agree that a panel of three scientists would be appropriate.

Third, the panel members must be given the necessary resources to carry out the charge given to them and they must be provided adequate time, as determined in their professional judgment to be necessary, to complete the task.

Fourth, the panel must have at its disposal all of the information available to the MRC as well as the additional data collected by SCE consultants since the termination of the MRC, our staff's analysis of the data, together with any other input or data you or we deem appropriate.

Fifth, the mission given to the independent scientific panel must be clear and precise yet of sufficient scope to ask and answer the questions that are at issue and which must be asked if the Commission and the public is to be confident that the mandates of the Coastal Act are being properly discharged (i.e., that damaged or lost public natural resources, such as those associated with a healthy kelp forest, are restored or replaced).

The questions to be asked of the independent scientific panel (ISP) and made part of it's mission are, from our perspective, the following:

1. *Based on all available data, including that available to the Marine Review Committee, subsequent data collected by and/or on behalf of SCE, the analysis by Commission staff, and any*

other evidence deemed relevant by the ISP and applying the charge given to the MRC to evaluate and predict the impacts on the kelped community caused by SONGS, would you reach the same conclusions reached by the MRC relative to adverse impacts and proposed mitigation? If so, why?

2. If not, what are your evidentiary-based conclusions about the extent of adverse impacts on kelp caused by SONGS and what would your recommendations be relative to compensation (i.e., mitigation) for those adverse impacts through the construction of a kelp reef and why?


SCE has now transmitted to us the raw data relative to the kelp issues that we had requested last October. We are now reviewing that data to determine if it satisfies our needs. I realize that you disagree with our insistence on the receipt of this data and our need for funding support to conduct an evaluation of it. However, we have no doubt that we would be remiss in carrying out our legal responsibilities if we failed to conduct a staff evaluation of the data gathered by and analyzed on behalf of SCE. You have ascribed meaning to this data that has obvious and significant potential financial implications for your company as well as major consequences relative to the protection of public resources. Our evaluation of the data as well as any questions we raise relative to its meaning must be made available to the independent scientific panel just as your evaluation and input is being made available.

While our input needs to be available when the panel begins its work, I agree with you that we can proceed on parallel tracks and begin to move forward with the structuring of the panel and reaching agreement on the ground rules at the same time our staff and scientists are evaluating the data. As I indicated to you before, my own sense is that it may be premature to impanel the three scientists prior to our evaluation of the data because it may be that our own evaluation concludes that substantially different impacts have indeed occurred from those identified and predicted by the MRC. Again, as I have said before, if that, in fact, is the case, we would not be averse to revisiting the question of the mitigation requirements.

Having said this, I again remind you of our desire (i.e., SCE's as well as the Commission's) at the time the MRC completed its work to bring the entire matter to closure. At that time, we recognized that new data that might have led to different mitigation requirements may in fact be forthcoming at some point in the future. The intention of bringing to closure issues about impacts and appropriate compensation is applicable to impacts on kelp as well as other adverse impacts caused by SONGS (i.e., impacts on fish). If the question of the appropriate level of mitigation for kelp impacts is revisited, one can and, probably, should also argue that other impacts for which new information is available should also be reviewed, as well as the appropriateness of previously imposed mitigation requirements. In that regard, I request that you provide us with all the additional, updated information concerning fish kills from the operation of SONGS.

If you are in agreement with what I have outlined here, please let me know and we can agree on the next steps to identify the scientists for service on the independent scientific panel. We can then also reach agreement on the other ground rules.

Sincerely,


Peter Douglas
Executive Director

cc: Coastal Commissioners

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