STATE OF CALIFORNIA – THE RESOURCES AGENCY ARNOLD SCHWARZENEGGER, *GOVERNOR*

CALIFORNIA COASTAL COMMISSION

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November 18, 2005

Dr. David Kay
Southern California Edison Company
P.O. Box 800
Rosemead, CA 91770

Re: Compliance with Condition B of the SONGS Permit No. 6-81-330-A: SCE's 2004 Annual Marine Environmental Analysis Report

Dear David:

On October 12, 2000, the California Coastal Commission concurred with the Executive Director's determination regarding the fish behavioral barriers required by Condition B of the coastal development permit for the San Onofre Nuclear Generating Station Units 2 and 3 (No. 6-81-330-A, formerly 183-73). (See staff report entitled *Executive Director's Determination that Fish Behavioral Barriers Tested at SONGS are Ineffective*, dated September 22, 2000.) As part of that permit compliance action, the Executive Director specified continuing monitoring requirements, which included submission of a written report of the Fish Chase procedure used at the plant.

As required, SCE submitted the 2004 Annual Marine Environmental Analysis Report for the San Onofre Nuclear Generating Station dated July 2005 for Commission staff review. Chapter 4 of the report contains an assessment of in-plant fish, which includes data and analysis of the Fish Chase procedure.

For the 2004 operating period covered by this report, we specifically note the following:

(1) The impingement for the year was 54,244 kg, which was more than twice the long-term average (23,527 kg) and 32,321 kg more than the previous year (2003).

(2) The Fish Chase procedure resulted in 2,616 kg of fish returned live to the ocean, an increase of 230 kg from 2003. However, the return for 2004 (2,616 kg) was much less than the long term average of 4,074 kg.

(3) For the year 2004 the Fish Chase effectiveness relative to impingement was 4.82%, **which does not meet the 10% target value**.

(4) There was a clear discussion concerning methods, results and interpretation of results.

(5) There was a huge increase in the impingement of sardines in 2004. By weight sardines constituted ~80% of impingement in 2004, whereas in 2003 they constituted ~10%. By contrast with overall impingement, sardines were much rarer during Fish Chase procedures (about 3%).

(6) A series of unusual events that occurred in 2004 were documented (e.g., Sea Lion, Harbor Seal, Sea Turtles and Giant Sea bass impingement).

(7) Mortality rates during the fish chase procedures were unusually high during 2004 (defined as "the biomass of fish killed during a heat treatment divided by the biomass of fish entrained (fish impinged plus fish returned alive via the FRS)"). Higher than normal mortality is defined as (1) a sequence of three or more heat treatments where the mortality rate exceeds 50%, (2) more than 50% of heat treatments in a given year have more than a 50% mortality rate, or (3) mortality rate for the year exceeds 50%.

Condition 1 and 3 both met the definition of 'unusual event' for 2004. There were two sequences of successive fish chase procedures that resulted in >50% mortality and overall mortality for the year was 50.3 %. These large mortality events did not seem to be simply a consequence of unusually high numbers of sardines.

Hence, the results of Chapter 4 of the report indicate that the operation of the Fish Chase procedure during 2004 was not consistent with the standards enumerated in the Executive Director's determination.

This is the first time since the Commission determined that the Fish Chase procedure met (in principle) the conditions of Condition B of the coastal development permit for the San Onofre Nuclear Generating Station Units 2 and 3 (No. 6-81-330-A, formerly 183-73) that the performance of the procedure was less than the stated performance goals. Both the percent reduction in impingement (4.82%) and the mortality rates associated with the fish chase (see above) failed to meet the standards.

We clearly did not anticipate such significant deviation in the results of the Fish Chase Procedure. In order to assess the importance of the sub-standard performance of the Fish Chase Procedure and to avoid losses over time, we need to learn whether there were more sardines than usual, or whether the procedure might have been operated differently. Consequently, we request that SCE provide this follow-up information:

(1) All impingement and heat treatment data used in Chapter 4 (including appendices) in electronic format (preferably Excel format) for the years 2000-2004.

(2) A description (or explanation) for the poorer than typical performance of the Fish Chase procedure and an explanation for the unusual events.

(3) A comparison of the Fish Chase temperature curves between 2004 and previous years. This should be part of a description of any changes in the procedure over the period 2000-2004.

(4) An interim report for the current year to date that includes:
   a. Results of fish chase procedure for 2005 (e.g., Table 4-6, 4-8, Figure 4-1).
   b. Impingement to date.

Please provide the requested information directly to Pete Raimondi, of our Scientific Advisory Panel, as well as to our contract scientists, Steve Schroeter, Dan Reed, and Mark Page, and to Commission staff John Dixon and myself. We look forward to working with you to ensure that higher-than-usual losses do not become the norm. Thank you for you attention to this important matter.

Sincerely,

Susan M. Hansch
Chief Deputy Director