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Docket Nos. 50-361
and 50-362

MEMORANDUM FOR: Wm. H. Regan, Jr., Chief
Environmental Projects Branch 2

FROM: O.D.T. Lynch, Jr., Sr. Project Manager
Environmental Projects Branch 2

SUBJECT: PROJECT CRITIQUE FOR SAN ONOFRE NUCLEAR GENERATING
STATION, UNIT NOS. 2 AND 3 - TO PUBLICATION OF DRAFT
ENVIRONMENTAL STATEMENT, OPERATING LICENSE STAGE

Transmitted herewith is a copy of the subject critique. The SONGS 2 and 3 DES was issued on November 28, 1978. Presently the FES is scheduled to be issued on April 18, 1979. The environmental hearing is scheduled to begin in July 1979.

Original signed by
O. D. T. Lynch, Jr.

O.D.T. Lynch, Jr., Sr. Project Manager
Environmental Projects Branch 2
Division of Site Safety and
Environmental Analysis

Enclosure:
Critique for
SONGS 2 & 3

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PROJECT CRITIQUE FOR
SAN ONOFRE NUCLEAR GENERATING STATION
UNIT NOS. 2 AND 3
DOCKETING TO PUBLICATION OF DES (MILESTONE 35)
OPERATING LICENSE STAGE

INTRODUCTION

The San Onofre Nuclear Generating Station, Unit Nos. 2 and 3 (SONGS 2 & 3) Operating License Stage environmental review was performed with the assistance of the Oak Ridge National Laboratories (ORNL). The review of the plant at the CP stage was also performed with the assistance of ORNL. The site visit was made during the week of May 17, 1977 and included representatives from the Environmental Protection Agency, U. S. Fish and Wildlife Service, U. S. National Marine Fisheries Service/NOAA, California Department of Fish and Game and the California Coastal Commission. Fuel loading for Unit 2 is scheduled for February 1980, and for Unit 3, May 1981.

The Draft Environmental Statement (DES) was issued on November 28, 1978, with notice and its availability provided on December 1, 1978. An FES is presently scheduled for issuance on April 18, 1979.

CRITIQUE

A critique of the environmental review is provided below. Delays in the schedule and their causes are discussed together with recurring problems and recommendations for improvement. Actions taken by the participants to minimize impacts in the review schedule are also indicated.

1. Original Targeted Span, Months

Start Date:	03/23/77	Docket Date, Milestone 02-8
DES Issue Date:	10/21/77	Milestone 34-95
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Time Span:	7	Months

2. Actual Span, Months

Start Date:	03/23/77	Docket Date, Milestone 02-8
DES Issue Date:	11/28/78	Milestone 34-95
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Time Span:	19	Months

3. Magnitude of Slippage: 12 Months

4. Reasons for Slippage:

a. The original schedule was developed on March 24, 1977, approximately three years before scheduled fuel loading for Unit 2. The first slippage was caused by a number of factors:

- i. a lab team members absence (foreign travel)
- ii. the need for recomputation of thermal hydrology calculations. (the first indication that there was a potential thermal plume problem)
- iii. Applicant's late submittal of meteorology data.
- iv. late ETSB impact.

For these reasons a six week slip occurred in August 1977.

b. In October 1977 several problems gelled to delay the schedule for approximately one additional month:

- i. Lab team members were working on Shoreham review, which had higher priority (SONGS 2 was 2½ years from fuel loading).
- ii. Continued problems with thermal plume analysis.

However, before a schedule change could formally be developed, it became apparent that there could be a serious thermal plume problem. Meetings were held with the applicant and it was determined that several months delay would be required to obtain additional data from the applicant and to conduct the analysis. For this reason, the environmental review schedule was suspended in November 1977, indefinitely, until the analysis was well enough along to make rescheduling meaningful. On August 28, 1978, the review schedule was reactivated. The total slippage experienced was 11 months.

c. Additional delays occurred in completion of the PDES at the laboratory due to a conflict with the higher priority Greene County Review (10 days). Also, OELD Section Chief review took 6.5 days (2 days authorized by RPOP 604, Rev. 3, 12/30/74) and resulted in no changes to the PDES. The net slippage in the schedule resulting from these delays was 11 days. The DES was issued on November 28, 1978.

5. Actions Taken by NRC, ORNL and Applicant to Minimize Impacts

Although the total slippage occurring in the environmental review to the DES issue is approximately 12 months, it is important to realize that the fuel loading date for SONGS 2 is February 1980, and could possibly slip more. The amount of time allowed for the environmental review is very generous. Even so, considerable effort was made to keep the review on schedule by both the NRC staff and the applicant.

However, with such a generous schedule, several times in the review, the SONGS 2 & 3 review had to yield to higher priority projects. (Shoreham and Greene County). Also, since there was a potential for a serious thermal plume problem, every effort was made by all parties to make an adequate assessment of the situation. This required the applicant to develop data, which took some time. It also required adaptation of a state-of-the-art computer code by the laboratory to develop the computations for the assessment. This extended and intense review of the thermal plume accounted for the substantial 11 month slippage. Every effort was made to expedite the exchange of information with the applicant. This involved several meetings and submittals of information. To minimize the delay from completion of the thermal plume assessment, the rest of the DES was completed and held in readiness until the thermal analysis could be added.

In addition, OELD was worked into the review at the very beginning. This enabled the review team to identify any legal problems and correct them before they could become a problem, and also expedited the management and OELD review, even though 7 days were lost at the OELD Section Chief review (although no changes were made in the DES).

6. Comparisons with Similar Situations on Other Cases

With the exception of the extended analysis on the thermal plume, which resulted in the major delay, the SONGS 2 & 3 environmental review is not significantly different from other OL reviews being conducted with laboratory participation. However, the long lead time of about three years between docketing and fuel loading, does make it difficult, at least in the early stages, to keep a high enough priority to prevent the review being overridden by other reviews.

7. Recurring Problems and Recommended Actions

The only recurring problem experienced of any merit has not really resulted in any delays, to date. This problem is the applicant's

attitude regarding the thermal plume analysis, even though the bottom line is the same as their analysis - there should be no problem with the thermal plume. They have already informally expressed some dissatisfaction with the DES analysis of the thermal plume, and expect to meet with the staff on January 9, 1979, to discuss the matter. Continued disagreement on the thermal plume analysis could result in additional delays if the applicant makes an issue of the matter and additional analyses need to be performed.

Every effort will be made to keep the situation under control.