U. S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

REGION V

Report No. 50-361/79-04
50-362/79-04

Docket No. 50-361, 50-362 License No. CPPR-97, CPPR-98 Safeguards Group

Licensee: Southern California Edison Company

P. O. Box 800 - 2244 Walnut Grove Avenue

Rosemead, California 91770

Facility Name: San Onofre 2 and 3

Inspection at: San Onofre Site, San Diego County, CA and Corporate Offices, Rosemead, CA

Inspection conducted: January 16-18, 1979

Inspectors: R. F. Fish — 1/31/79
R. F. Fish, Radiation Specialist — Date Signed

J. B. Baird — 1/31/79
J. B. Baird, Radiation Specialist — Date Signed

Date Signed

Approved By: for H. E. Book — 2/1/79
H. E. Book, Chief, Fuel Facility and Materials Safety Branch — Date Signed

Summary:

Inspection on January 16-18, 1979 (Report No. 50-361/79-04 and 50-362/79-04)
Areas Inspected: Routine, unannounced inspection of preoperational environmental monitoring program, action on previous inspection findings and a tour of some of the facilities. The inspection involved 36 hours of onsite time by two inspectors.

Results: No items of noncompliance or deviations were identified.

RV Form 219(2)

DETAILS

1. Persons Contacted

A. R. Strachan, Supervising Research Scientist
R. S. Grove, Research Engineer - Oceanographer
*R. V. Warnock, Chemical and Radiation Protection Supervisor
*G. D. Bogosian, Project QA Supervisor, Units 2 and 3
*P. R. Belhumeur, Startup QA Supervisor
H. L. Chun, QA Engineer
*P. A. Portanova, Project Startup Supervisor
*R. M. Rosenblum, NSSS Test Operations Supervisor
B. Woods, Startup Engineer

*Denotes those present during exit interview.

2. Action on Previous Inspection Findings

a. (Closed) Exit Interview Discussion (50-361/78-10, 50-362/78-07): Construction's initial reply to a corrective action request (CAR) related to biweekly inspections of the new transmission lines was considered to be unacceptable by Quality Assurance (QA). The response accepted by QA contained the commitment to resume biweekly inspections when there is a significant rainfall or further work creates conditions which might cause erosion. QA confirmed that reports of such inspections had been prepared for rains occurring on September 5, and November 12 and 21, 1978.

b. (Closed) Exit Interview Discussion (50-361/78-10, 50-362/78-07): Procedures for the construction environmental surveillance program had been in draft forms since August 1977. An Engineering and Construction Environmental Monitoring Procedures Manual was issued in October 1978. The manual includes the construction monitoring program for SONGS 2 and 3, administrative procedure controls, a corrective action procedure and a procedure governing procurement activities.

3. Preoperational Monitoring Program

The applicant's preoperational monitoring program has been described in the attachment to the applicant's June 7, 1978 letter to the NRC (Subject: Docket Nos. 50-361 and 50-362, Preoperational Monitoring Program, San Onofre Nuclear Generating Station Units 2 and 3). The NRC acknowledged the program, subject to two items of understanding and a position statement concerning proper pH water sample control prior to laboratory analysis, in a July 6, 1978 letter to the applicant.

According to interviews and an examination of records, the preoperational monitoring program for Units 2 and 3 was found to consist of the following: plankton monitoring, fish monitoring, benthic studies, monitoring of dissolved gases (oxygen) and pH, monitoring of temperature and turbidity, monitoring of heavy metals and radiological monitoring. The meteorological monitoring program for Unit 1 has been used to describe the preoperational program for Units 2 and 3 and was not examined during this inspection because of the normal Unit 1 inspection program. Three contractor organizations (Environmental Sciences Division of Brown and Caldwell Consulting Engineers, Lockheed Center for Marine Research, and LFE Corporation) have been performing the preoperation monitoring programs. Southern California Edison (SCE) personnel have been involved to the extent of (1) monitoring contract activities, (2) collecting air and direct radiation measurement (TLD) samples and, (3) preparing and submitting reports of the results to the NRC.

The inspection showed that the preoperational monitoring program had been implemented over a period of several months. The oceanographic and aquatic biological preoperational studies were added on to existing contracts for activities already being performed for Unit 1. The radiological preoperational monitoring program for Units 2 and 3 consisted of adding several sample locations to those that comprise the radiological environmental monitoring program for Unit 1. Based upon information obtained during the inspection, it appears that two years of data will be obtained for all but two parts of the preoperational monitoring program. The single particulate and iodine weekly sample that constitutes the Units 2 and 3 effort for preoperational monitoring of airborne activity was started during the last week of December 1978. The comments concerning preoperational environmental surveillance programs, located at the end of Table 2 in Regulatory Guide 4.8 (Environmental Technical Specifications for Nuclear Power Plants), states that the duration of the preoperational sampling program for airborne iodine and airborne particulates should be six months and one year respectively. The delay in starting the airborne particulate and iodine samples was due to the late delivery of the sampling equipment. The special ichthyoplankton study that is to be conducted for a one-year period prior to the startup of Unit 2 has not been fully implemented. At the present time the applicant expects to obtain the data for a full year prior to the startup of Unit 2.

No items of noncompliance or deviations were identified.

4. Procedures

The primary procedure document covering the preoperational environmental monitoring program is the Environmental Monitoring Procedures Manual (EMPM) issued by Research and Development (R&D). This manual contains procedures for both oceanographic and biological

studies including marine radiological sample collection. The manual also includes procedures covering the following: assignment, maintenance and control of the manual; initiation, revision, review, approval and distribution of procedures and subsequent revisions; processing of nonconformance reports; R&D forms control. The procedures in this manual cover activities performed in connection with construction and preoperational monitoring at Units 2 and 3 as well as the environmental technical specifications (ETS) of Unit 1. The examination of the procedures applicable to the preoperational monitoring disclosed that they were consistent with the program described in the attachment to the applicant's June 7, 1978 letter identified in Paragraph 3.

Those preoperational radiological environmental monitoring activities involving collection of airborne and ocean and aquatic samples and direct radiation measurements have been delegated to Unit 1. Procedures for satisfying the Unit 1 ETS have also been used for the related Units 2 and 3 preoperational monitoring program. The inspections of these activities for Unit 1 will also cover the Units 2 and 3 work and, therefore, this inspection did not include an examination of these procedures.

The biological preoperational monitoring program is being performed under contract by Lockheed Center for Marine Research. Lockheed has prepared procedures for the plankton, nekton and benthic surveys. These Lockheed procedures have been reviewed by the responsible SCE organization to assure conformance with the required preoperational monitoring program and the EMPM. The approvals shown on each procedure include the responsible SCE employee.

The procedures in the EMPM are being used by the Environmental Sciences Division of Brown and Caldwell to perform the oceanographic studies.

No items of noncompliance or deviations were identified.

5. Quality Assurance Program

The applicant's quality assurance effort is centralized in the Quality Assurance (QA) organization. The environmental monitoring programs (construction, preoperational and operational phases) for

nuclear generating stations are controlled by the "Environmental Monitoring Administrative Controls Program Manual" (EMACP). A description of this document is contained in Paragraph 2.a of IE Inspection Report No. 50-361/76-07. The most recent changes to the EMACP were made in February 1978. Chapters 6 and 8 of the EMACP establishes surveillance* and audit** programs to assure compliance with the various environmental requirements. QA personnel perform the surveillances and audits based upon a yearly schedule prepared at the beginning of each year. QA personnel may be assisted by other SCE personnel who have special knowledge related to the audit or surveillance to be performed.

The QA records of 1978 surveillances and audits relative to activities performed in connection with the preoperational monitoring program for Units 2 and 3 were examined. These records showed that during the last seven (7) months of the year the following audits were performed.

(a) SCE R&D, Biological Systems Group

(b) SCE Project Management Organization for Units 2 and 3 (Audited - delegation of authority for preoperational and construction monitoring programs)

(c) SCE R&D, Environmental Monitoring Program (Audited - general office at Rosemead)

(d) Lockheed Center for Marine Research

(e) Brown and Caldwell Consulting Engineers, Environmental Sciences Division

(f) LFE Corporation

* Surveillance: A review, observation, or inspection for the purpose of verifying that an action has been accomplished as specified.

** Audit: Examination and verification that operations, methods, and records are in compliance with specified procedures and are effective in operation.

The QA reports include the criteria being audited, the audit plan and the audit findings. The findings indicate whether each item is considered to be closed or open. An open item requires subsequent QA followup, which is documented, to confirm resolution of the item. The reports also show whether corrective action requests (CAR) or nonconformance reports have been issued as the result of the audit. Three CAR's were issued as a result of the audit performed in (a) above. Responses to these CAR's are due to be received by February 14, 1979. One CAR was issued as the result of the audit in (f) above and a satisfactory response was received. No CAR's were issued as the result of the other audits.

A total of six (6) surveillances were performed during the last seven (7) months of 1978. These surveillances were performed in the areas of fish collection, radiological air sampling, heavy metals sampling, direct radiation measurements, marine radiological sampling and plankton surveys. The examination of the six surveillance reports disclosed a total of three (3) CAR's had been issued. One of these CAR's related to the airborn sampling equipment at the eastside boundry of Units 2 and 3 not being installed. QA received a satisfactory response to this CAR and, as stated in Paragraph 3 above, the sampling was started during the last week of December 1978. By letter dated December 22, 1978, the applicant notified the NRC (Assistant Director For Environmental Projects) of the delay in commencing this airborn sampling location.

The assigned SCE discipline specialist stated that he had reviewed the oceanographic contractor's QA program in June 1978. He also performed an audit of this QA program; however, this was not considered to be an official audit because the SCE QA organization performs this function. The SCE specialist said he had periodically visited the contractor for the purpose of reviewing the program.

No items of noncompliance or deviations were identified.

6. Records

The system of records for the oceanographic and biological studies includes the use of verification sheets. These sheets confirm that the required samples and measurements have been performed. When completed, copies of each verification sheet have been sent to the responsible SCE specialist for review. Some of the verification sheets also provide the collected data. Signatures confirm the SCE review of these sheets. A random examination of these sheets for the year 1978 disclosed the required information was being provided.

The oceanographic and biological studies contractors provide SCE with an annual report of the activities, including data collected, performed during the previous calendar year. These two reports for 1978, which will include the initial preoperational monitoring data for Units 2 and 3, had not been received by SCE as of the date of this inspection. One of the understandings in the July 6, 1978 letter identified in Paragraph 3 above, is that these results will be submitted with the annual operating report for Unit 1.

LFE has been providing the results of the radiological environmental samples for Units 2 and 3 along with the data for the Unit 1 samples. The results of the Unit 2 and 3 sampling received by SCE to date were examined during this inspection. This examination confirmed that, with the exception of the air sample, the radiological preoperational monitoring program had been started during the second quarter of 1978 and the required samples were being obtained and measurements made. Fourth quarter 1978 results had not been received by SCE. The records also included some direct radiation measurements made by SCE personnel using a pressurized ion chamber at the locations where TLD's have been placed. No results of the air samples had been received as of the date of this inspection. No anomalous results were identified during the examination of these results.

7. Tour of Facilities

The locations of the air sampler and the direct radiation measurement (TLD) in the south-southwest corner of the site boundry were confirmed by observation. The air sampler was operating and the chamber that holds the particulate and charcoal filters was in place. Two plastic bags with two packages of TLD's in each were being used to measure the direct radiation. According to the applicant there were four chips in each package and the contents in the plastic bags were changed on a frequency of quarterly and annually respectively. It was noted that both plastic bags contained moisture as the result of the rain that was occurring.

A tour of the auxiliary and Unit 2 fuel handling buildings was made to become aquainted with the physical facilities and examine the status of construction.

8. Exit Interview

At the conclusion of the inspection, the inspectors met with those persons identified in Paragraph 1 of the report. The following SCE personnel were also present: R. R. Hart, Project Construction Superintendent; D. E. Morgan, Superintendent - Units 2 and 3; G. A. Chavez, Startup Supervisor. Mr. R. J. Pate, NRC Resident Inspector, was also present at the exit interview. The scope of the inspection and the findings were described. The applicant was informed that there were no apparent items of noncompliance or deviations. The moisture observed in the plastic bags containing the TLD's was mentioned. The applicant stated that a check on the condition of the TLD's would be made promptly.