

U. S. NUCLEAR REGULATORY COMMISSION
MATERIAL TRANSMITTED HERewith CONTAINS
2.290 INFORMATION
REGION V

Report No. 50-206/82-24

Docket No. 50-206 License No. DPR-13 Safeguards Group _____

Licensee: Southern California Edison Company

P. O. Box 800

Rosemead, California 91770

Facility Name: San Onofre Unit 1

Inspection at: San Onofre, California

Inspection conducted: August 2 - 31, 1982

Inspectors: J. Hernandez jr 9/16/82
L. Miller, Senior Resident Inspector, Unit 1 Date Signed

Date Signed

Date Signed

Approved by: J. Hernandez jr 9/16/82
D. F. Kirsch, Chief, Reactor Projects Section 3 Date Signed
Reactor Project Branch No. 2

Date Signed

Summary: Inspection on August 2 - 31, 1982 (Report No. 50-206/82-24)

Areas Inspected: Routine, resident inspection of plant operations during long-term shutdown; annual review of plant operations; monthly maintenance and surveillance activities; and follow-up of Licensee Event Reports. This inspection involved 80 inspection-hours by one NRC inspector.

Results: In the four areas inspected, no items of noncompliance or deviations were identified.

MATERIAL TRANSMITTED HERewith CONTAINS
2.290 INFORMATION

DETAILS

1. Persons Contacted

- *H. Ray, Station Manager
- *P. Croy, Manager, Compliance and Configuration Control
- *B. Katz, Station Technical Manager
- *J. Dunn, Project Quality Assurance Supervisor, Unit 1
- N. Dickinson, Construction Superintendent, Unit 1
- A. Schramm, Watch Engineer
- M. Wharton, Supervising Engineer
- P. Knapp, Manager, Health Physics
- G. McDonald, QA/QC Supervisor, Unit 1
- F. Bucelli, Security Supervisor, Unit 1

The inspector also interviewed other licensee and contractor personnel during this inspection.

*Denotes those attending the exit interview on August 31, 1982.

2. Inspection of Plant Operations During Long-Term Outage

The inspector frequently observed Control Room operations for proper shift manning, adherence to procedures and limiting conditions for operation, and appropriate recorder and instrument indications. The inspector discussed the status of annunciators with Control Room operators to determine the reasons for abnormal indications and to determine operator awareness of plant status.

The Control Operator's log was reviewed to obtain information on plant conditions and to determine whether regulatory requirements had been met. Other logs, including the Watch Engineer's log were also reviewed several times. Selected maintenance orders for the current month were reviewed. The licensee's system for identifying equipment deficiencies appeared to be functioning adequately. The equipment control, jumper, and clearance records were audited, and selected tags in the Control Room were verified to have been hung properly.

The inspector frequently toured the accessible areas of the facility to assess equipment conditions, radiological controls, security, and safety.

The inspector's tours indicated that Radiation Controlled area access points were generally safe and clean. Several Radiation Exposure Permits were reviewed for completeness. Surveys and packaging of low specific activity material were observed and appeared adequate. The inspector noted, during a review of the personnel contamination log, that on August 4, 1982, a worker inside containment had contaminated his hands

slightly when he removed his protective gloves to loosen nuts on the (C) reactor coolant pump drip pans. Licensee personnel detected the contamination when the worker exited containment, and then successfully decontaminated his hands. At the Exit Interview, the inspector observed that this poor practice was apparently an isolated occurrence and therefore the licensee's corrective action to reinstruct the worker on proper radiological work practices appeared sufficient. This item is closed. No potentially contaminated material was observed in spotchecks of garbage containers. Selected radiation measuring instruments in use appeared operable and were in calibration.

The inspector observed that the amount of construction debris and equipment accumulated in work areas, such as the charging pump room had increased significantly. However, no fire hazards due to loose combustibles were observed, and numerous workers were engaged in housekeeping activities. This item is closed.

Manning of security posts, integrity of protected area barriers and isolation zones, conduct of search procedures, and personnel identification measures were all observed at intervals by the inspector. These appeared adequate except for an occurrence on August 4, 1982, described in Enclosure B. No items of noncompliance or deviations were identified.

3. Monthly Maintenance and Surveillance Observations

The inspector witnessed portions of the following activities:

- a. Operational Radiation Monitoring System Test (Channel 1214), S01-12.2-2
- b. Semiannual Fire Detection Channel Functional Test, S01-I-2.22

In addition, the record for the monthly EFCOMATIC valve exercise, S01-12.3-24, was reviewed.

The inspector determined that procedures used for these activities were consistent with applicable limiting conditions for operation, clearances were obtained where necessary for protection of equipment and personnel, necessary tools were properly calibrated and used, and maintenance personnel coordinated their activities with licensed operators, where appropriate.

MATERIAL TRANSMITTED HEREWITH CONTAINS
2.790 INFORMATION

The inspector noted while reviewing logs that licensee personnel discovered two inoperable ultraviolet radiation detectors on August 5. The detectors had apparently been covered with tape to prevent their alarming by licensee construction personnel without authorization or compensatory measures. The detectors are not required to be operable by the current Technical Specifications, but they will be required under a proposed revision which has been submitted to implement 10 CFR 50 Appendix R requirements. The inspector promptly discussed this discovery with licensee representatives. They initiated a search to determine whether other inoperable detectors existed, and two smoke detectors were found covered in the sphere enclosure building. As with the two ultraviolet detectors, current regulatory requirements for the detectors were not violated. Licensee representatives stated that all construction managers had been clearly advised to prevent a recurrence of this action by their personnel. The inspector stated at the Exit Interview that this event indicated a continuing weakness in worker understanding of their responsibility to not modify the facility without proper authorization. The inspector concluded however, that in this instance the licensee's quality assurance program had functioned effectively to detect and promptly correct this event. This item is closed

No items of noncompliance or deviations were identified.

4. Follow-up on Licensee Event Reports (LERs)

a. Salt Water Cooling System Failure of August 13 (Open)

The inspector was informed on August 16 that a failure of the south saltwater pump (SSW) discharge valve (POV-6) had occurred on the evening of August 13. The valve opened unexpectedly while the north saltwater pump (NSW) was running, supplying cooling water to the bottom component cooling water (CCW) heat exchanger. An operator in attendance took local pneumatic control of the valve and closed it. A hydraulic shock to the system resulted, fracturing a previously leaking vent line on the discharge and of the CCW heat exchanger, and creating minor flooding in the area. The inspector reviewed the licensee's analysis of this event on August 30. This analysis concluded that the probable cause of the hydraulic shock to the system was diversion of most of the flow of the NSW pump through the SSW pump in reverse. This diversion partially drained the inservice heat exchange and momentarily interrupted residual heat removal. The closure of POV-6 rapidly refilled it, causing the shock. The inspector noted that the unreliability of the saltwater pump discharge valves had been previously identified, most recently as a result

MATERIAL TRANSMITTED HEREWITH CONTAINS
2.790 INFORMATION

of events discussed in NRC Inspection Reports Nos. 82-04 and 82-10. At the Exit Interview a licensee representative stated that a report of this occurrence and a comprehensive approach to improve the reliability of these valves would be submitted. This item remains open pending review of this report.

b. Salt Water Cooling System Failure of August 19 (Open)

The inspector was informed on August 19 that the NSW pump motor bearing had seriously overheated, and that the auxiliary salt water pump (ASW) had been started to supply ultimate cooling water for the reactor. (The SSW pump was out of service.) The NSW pump was then removed from service. Subsequently, the NSW pump motor was replaced, and approximately ten days later, the NSW pump was overhauled. The pump bearings were found to be excessively worn and the pump shaft was slightly bent. The pump motor bearings had not yet been inspected. The inspector noted that the SSW pump also failed while operating in March, 1980. At the Exit Interview, a licensee representative stated that the report described in the preceding paragraph would propose measures to improve pump reliability. This item remains open pending review of this report. (OI 50-206/82-24-01).

c. LER 82-019: Excessive Recirculation Loop Leakage (Closed)

The inspector reviewed the results of the recirculation system leakage test as it was conducted, and reviewed the results of the test. The report was timely, accurate, and consistent with reporting requirements. This LER is closed.

No items of noncompliance or deviations were identified.

5. Annual Review of Plant Operations

a. Training

The inspector attended two licensed operator requalification training lectures and verified that the lesson plan was used and that the training was technically sound. The lectures were presented clearly and effectively. At the Exit Interview, the inspector observed that one of the lectures had not started on time, but was significantly delayed on two occasions. The inspector questioned whether this was an effective use of the trainee's offshift overtime. A licensee representative stated that corrective action to reduce late starts of scheduled classes would be taken. This item is closed.

The inspector interviewed five nonlicensed employees to determine their understanding of the radiological emergency plan and security procedures. Two of the employees were craftsman. They were also interviewed to determine the amount and scope of technical training which they had received. The inspector concluded that the licensee's training program had effectively indoctrinated these employees with the essentials of the emergency plan and security procedures, and that the craftsman had received an acceptable amount of formal technical training on job-related topics.

b. Corrective Actions

The inspector reviewed all nonconformance reports on file for the period June - July, 1982. No trends or recurring failures not previously reported were discovered. The inspector noted that numerous nonconformance reports (NCRs) did not appear to address appropriate corrective action to prevent recurrence of the nonconformance. Rather, the specific fault found was corrected and this was considered sufficient. For example, NCR S01-F-2590 reported that valve CV-516, one of several EFCOMATIC model valves recently overhauled and reinstalled, was identified to have been installed with a 90 degree misalignment. The NCR's approved corrective action indicated this was an "isolated case". The inspector discussed this finding with licensee quality assurance representatives. They stated that this discrepancy had been identified and a revised NCR form was being prepared which would reduce the likelihood of ineffective corrective action. This item remains open pending further examination of this system (OI 50-206/82-24-02).

No items of noncompliance or deviations were identified.

6. Exit Interview

The inspector met with licensee representatives (denoted in paragraph 1) on August 31, 1982, to summarize the scope and findings of this inspection. The licensee acknowledged the commitments identified in this report.