

U. S. NUCLEAR REGULATORY COMMISSION

REGION V

Report No. 50-206/83-27, 50-361/83-42, 50-362/83-41

Docket No. 50-206, 50-361, 50-362 License Nos. DPR-13, NPF-10, NPF-15
Safeguards Group _____

Licensee: Southern California Edison Company
P. O. Box 800, 2244 Walnut Grove Avenue
Rosemead, California 91770

Facility Name: San Onofre Units 1, 2, and 3

Inspection at: San Clemente, California

Inspectors: G. P. Yuhos 1/19/84
G. P. Yuhos, Radiation Specialist Date Signed

Approved by: F. A. Wenslawski 1/19/84
F. A. Wenslawski, Chief Date Signed
Radiological Safety Branch

Summary:

Inspection on December 27 and 28, 1983 (Report Nos. 50-206/83-27, 50-361/83-42, 50-362/83-41).

Areas Inspected: Special announced inspection to review the Unit 2 and 3 power ascension test program as applied to reactor coolant specific activity; followup on the licensee's actions involving the release of materials contaminated with low levels of radioactivity; and review of dosimetry files associated with a worker's expression of concern. The inspection involved 14 hours onsite by one regionally based inspector.

Results: Of the areas inspected no items of noncompliance were identified, one item involving a 1978 spent fuel handling evolution remains unresolved (paragraph 4).

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DETAILS

1. Persons Contacted

- *J. Haynes, Station Manager
- *D. Schone, Site Quality Assurance Manager
- *P. Croy, Compliance Manager
- *J. Droste, Assistant Manager Technical
- *R. Gray, Health Physics Supervisor
- *D. Duran, Radwaste Supervisor
- *P. King, Quality Assurance Supervisor
- *J. Mortensen, Chemistry Supervisor
- S. Jones, Health Physics Foreman
- E. Bennett, Quality Assurance
- *R. Reiss, Quality Assurance
- *M. Speer, Compliance

*Indicates these individuals attending the exit interview on December 28, 1983.

2. Units 2/3 Power Ascension Test Program

The licensee's implementation of the commitment presented in Section 14.2.12.92, "RCS Chemistry and Radio-Chemistry Test" of the Final Safety Analysis Report (FSAR) was reviewed. Data collected pursuant to Special Chemistry Procedure SPC-002 and SPC-003, "Unit-2/3 Power Ascension Test Program, Chemistry Support" were reviewed and discussed with the Chemistry Supervisor.

The Boronometer (2AE-0203) was successfully shown to provide reliable indication of reactor coolant boron concentration. The Process Radiation Monitor (2RE-0202) proved to be unreliable and lacked quantitative correlation to reactor coolant specific activity. The licensee had responded to these problems by installation of new shielded cable in the instrument circuit and development of an activity correlation based on Rb-88 to compare the monitor readout with laboratory analysis results. The Unit 2 modifications were expected to be complete by January 6, 1984. The Unit 3 monitor was performing satisfactorily and trending reactor coolant activity.

The Unit 2 baseline full power reactor coolant gross specific activity was established at approximately $9E-1$ uCi/cc. This is consistent with the $8E-1$ uCi/cc predicted by the vendor. The vendor considers activities in excess of 2.0 uCi/cc to be abnormal.

Although Unit 3 full power testing had not yet been completed, review of gross specific and dose equivalent iodine activity indicated much higher levels than observed at Unit 2. Since December 22, 1983 dose equivalent iodine activities in excess of 1.0 uCi/g had been observed following power changes. Gross activities of 10 uCi/cc were also observed. These activities are within the Technical Specification limit (3.4.7), however, the licensee and Combustion Engineering are carefully evaluating the significance of these indicators.

The inspector discussed with the Health Physics Supervisor the impact high reactor coolant specific activity will have on maintenance activities during the January outage. The Health Physics Supervisor had evaluated the potential effects in terms of plant specific design and was making appropriate preparations.

No items of noncompliance or deviations were identified in this area.

3. Control of Radioactive Material

The inspector met with licensee representatives to review the status of their survey efforts at the Mesa (Report No. 50-206/83-20) and the implementation of long term corrective actions associated with disposal of sewage sludge containing trace quantities of radioactive material.

The Radwaste Supervisor stated that four teams of six technicians and laborers are presently engaged in the survey efforts at the Mesa. The supervisor estimated the effort is 30% complete. He has set February 1984 as a target date for completion. The January 15, 1984 evaluation is on schedule according to the supervisor. Since October 1983 the survey effort has identified approximately 50 items contaminated with low levels of radioactive material. None of the items discovered represented a significant radiation hazard.

In letters dated September 22, and October 1, 1982 the licensee advised NRC that two shipments of sewage sludge from an obsolete septic tank located within the Unit 1 restricted area were allowed to leave the facility without an appropriate survey. Sampling of the residual sludge in the tank and of the disposal facility confirmed that no NRC or state radiation safety regulations had been violated. Review of records indicated the licensee had performed an evaluation of this situation and developed measures to prevent recurrence. These measures included revision of Health Physics Procedures SO-123-III-5.2.1, SO-123-III-5.11.1, and SO-123-VII-8.2 to assure that all sewage sludge is sampled, analyzed and disposed of in accordance with regulatory requirements. The licensee made arrangements to dump future sewage plant effluents into the San Diego Metropolitan Sewage System. Records indicate that on June 2, 1983 the licensee discovered that a February 24, 1983 shipment of approximately 8,000 gallons of sludge had been diverted by the waste hauler (Consolidated Pumping Service) and dumped at the Bonsall Landfill rather than the authorized dumping station. The licensee reviewed this matter, terminated their contract with the waste hauler, and correctly concluded, that the trace radioactivity present was less than the unconditional release limits for water expressed in 10 CFR 20, Appendix B, Table 2, and no report to NRC was required. The licensee has now established a formal agreement with I.T. Corporation to assure that all sewage sludge will be disposed of at the designated location.

Review of a December 22, 1983 sewage shipment indicated the licensee is implementing the established program.

No items of noncompliance or deviations were identified in this area.

4. Worker Expression of Concern

On October 5, 1983 a worker contacted an NRC resident inspector regarding occupational dose received during work performed in the spring of 1978. The worker wanted to know if his occupational exposure could be responsible for medical problems which subsequently developed. Based on discussions between the worker, an NRC Radiation Specialist, and the time period since exposure, the matter was reviewed during this inspection. Review of the individual's dosimetry records indicated the licensee did not record an exposure in excess of regulatory limits. Peripheral records indicate the individual worked on a spent fuel cask during February and March 1978. The Health Physics Shift Foreman's Log and Contamination/Injury Log books were reviewed for the period of interest and no indication of a personnel contamination incident involving the individual were recorded during the spring of 1978. A Health Physics/Chemistry Technician involved in the spring 1978 fuel shipping activities was contacted by telephone and did not recall a contamination incident involving the individual or a condition when significant personnel exposure was likely to have occurred. Specific survey records for the period in question were not available during the inspection. Other individuals involved in the specific work activities during the period in question also were not available during the inspection.

This matter will remain unresolved pending additional review (50-206/83-27-01).

5. Unresolved Item

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable items, items of noncompliance, or deviations. An unresolved item is discussed in paragraph 4.

6. Exit Interview

The inspector met with the licensee representatives (denoted in paragraph 1) at the conclusion of the inspection on December 28, 1983. The inspector summarized the scope and findings of the inspection.

The inspector stated that the Unit 3 high reactor coolant specific activity is of concern. The licensee stated that they are carefully evaluating the significance of this indicator with respect to fuel performance.