

ENCLOSURE

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

Inspection Report: 50-361/95-29
50-362/95-29

Licenses: NPF-10
NPF-15

Licensee: Southern California Edison Co.
P.O. Box 128
San Clemente, California

Facility Name: San Onofre Nuclear Generating Station, Units 2 and 3

Inspection At: San Onofre Site, San Clemente, California

Inspection Conducted: December 4-8, 1995

Inspectors: L. T. Ricketson, P.E., Senior Radiation Specialist
Plant Support Branch

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Approved:

Blaine Murray

Blaine Murray, Chief, Plant Support Branch
Reactor Safety Division

12/27/95
Date

Inspection Summary

Areas Inspected (Units 2 and 3): Routine, announced inspection of the solid radioactive waste management and radioactive materials transportation programs including: audits and appraisals, changes, training and qualifications, implementation of the solid waste radioactive waste program, and shipping of low-level wastes for disposal, and transportation of radioactive materials.

Results (Units 2 and 3):

Plant Support

- Quality assurance oversight of transportation activities was minimal but commensurate with the number of problems identified through other methods such as investigations and problem reports. Thorough, well planned oversight activities were performed related to the solid radioactive waste management program. The quality of the surveillances and observations performed by the quality assurance organization was good (Section 1).

- A good corrective action program was in place regarding transportation and solid radwaste activity. Investigations and root cause determinations were thorough. Corrective actions were timely and appropriate for the identified root causes (Section 1).
- Individuals participating in the processing, storage, and shipment of radioactive materials were well qualified and properly trained (Section 3).
- An excellent waste minimization program had been implemented. Housekeeping within the radiological controlled area was generally good. Waste stream sampling was performed appropriately and radioactive waste was correctly classified (Section 4).
- A good program for transportation of radioactive waste and radioactive materials was implemented (Section 5).

Attachments:

- Attachment 1 - Persons Contacted and Exit Meeting
- Attachment 2 - Documents reviewed

DETAILS

SOLID RADIOACTIVE WASTE MANAGEMENT AND TRANSPORTATION OF RADIOACTIVE MATERIALS (86750)

1. Audits and Appraisals; Effectiveness of Licensee Controls

The inspectors reviewed audits and other means of program appraisal to determine agreement with the commitments in Chapter 17 of the final safety analysis report and the topical quality assurance manual.

No audits of transportation activities had been performed since the previous inspection of this functional area. Audit Report SCES 314-93, "Packaging and Transport of Radioactive Material," was performed September 7 through October 1, 1993 and was reviewed during Inspection 50-206/95-37; 50-361/95-37; 50-362/95-37. According to shipping logs, the licensee had conducted over 300 shipments of radioactive materials and radioactive waste since the previous audit. Quality assurance representatives stated that the next audit of transportation activities was scheduled for 1996. The inspectors reviewed records of other licensee oversight results and determined that quality assurance personnel had performed three surveillances and nine observations of activities associated with the areas covered by this inspection. However, only one surveillance and no observations were performed regarding transportation activities. A portion of the 1994 Health Physics Program Audit (SCES-406-94), conducted February 14 through April 21, 1995, addressed the receipt and surveying of packages containing radioactive materials, but not package preparation and shipping.

The inspectors interviewed quality assurance personnel and determined that audit frequencies for transportation activities were described in the San Onofre Nuclear Generating Station Topical Quality Assurance Manual. The topical quality assurance manual stated, in Table 1-E-1, "All activities defined in the topical quality assurance manual shall be audited periodically." No specific information was provided concerning the minimum number of surveillances or observations to be performed of the areas discussed in this report. From this review, the inspectors concluded that no violations or deviations had occurred, related to the frequency or minimum number of quality assurance oversight activities.

Additionally, the inspectors determined through interviews with quality assurance personnel that no violations had been identified by the waste burial site licensee. Licensee problem reporting records reviewed by the inspectors indicated no adverse trends involving radioactive shipments. However, a health physics division investigation report was issued in June 1994 that documented an occurrence in which all the requirements of a certificate of compliance for an NRC approved shipping container were not met. The inspectors concluded that quality assurance oversight of transportation activities was minimal but commensurate with problems identified during other oversight activities such as investigations and problem reports.

The quality assurance surveillances and observations focused primarily on radioactive materials controls and the solid waste program. The surveillances were detailed and well planned. The observations were performed frequently enough to provide management with good insight into day-to-day performance of the areas reviewed.

In addition to the quality assurance oversight activities, the inspectors reviewed corrective action documents such as radiological observation reports, health physics experience reports, division investigation reports, and interdivisional investigation reports associated with the area of inspection. The investigation reports, particularly, were noteworthy. Investigations and root cause analyses documented in the investigation reports were thorough and corrective actions were appropriate for the identified root causes. The investigation reports reviewed are listed on Attachment 2 of this report.

The inspectors reviewed an audit of the vendor that performed independent analysis of the waste stream samples. The audit, QAG-TMA 94-Program 01, was a joint-utility audit performed by a member of the Nuclear Procurement Issues Committee. The audit was thorough and conformed to the requirements included in the topical quality assurance manual.

2 Changes

The inspectors reviewed changes associated with the solid waste management and transportation programs to determine agreement with the commitments in Chapter 11 of the final safety analysis report.

The inspectors determined that no structural changes had occurred to the organization since the previous inspection of this area. A group of operations personnel from the shut down Unit 1 facility were assigned positions with the radioactive materials control group. These positions were formerly held by contractor personnel. The chemistry department was assigned the responsibility for performing all radionuclide analyses. Previously, some radionuclide analyses were performed by the health physics department.

The south yard facility was put into use during May 1995. The new facility includes storage, handling, and decontamination facilities.

3 Training and Qualifications

The inspectors reviewed training and qualifications of individuals involved with the packaging, handling, shipping, and transporting of radioactive materials and radioactive waste to determine compliance with the requirements in Technical Specification 6.3 and 6.4 and agreement with commitments made in response to NRC Bulletin 79-19.

With respect to initial training, the inspectors determined that no additional personnel had become qualified since the previous inspection, so further review was unnecessary. With respect to recurrent training, the inspectors verified that members of the radioactive materials control group, procedure

writers, and procedure approving supervisors had been trained in accordance with the licensee's commitments in the response to NRC Bulletin 79-19. The inspectors also determined that members of the quality control group within the nuclear oversight division had received training in applicable transportation requirements, since they were required to verify the successful completion of some steps in the preparation of certain shipments.

4 Implementation of the Solid Radioactive Waste Program

The inspectors toured licensee facilities and reviewed licensee documentation to determine compliance with the requirements of 10 CFR Part 20, 10 CFR 61.55 and 61.56, and the commitments in Chapter 11.4 of the final safety analysis report.

The inspectors reviewed licensee information and records regarding the amount of solid waste generated at the site during the last few years and concluded that the licensee, using various techniques, had made excellent progress in reducing the amount of waste that needed to be shipped for burial.

During tours of the licensee's facility, the inspector observed housekeeping and control of materials to be good, generally. However, the mixed waste area, outside the radwaste building truck bay, was not maintained to the same standard. In this area, there were plastic bags of potentially contaminated material, stored outdoors temporarily, unprotected from the environment. Also, there were open boxes of potentially contaminated tools and scaffolding components awaiting to be surveyed. These conditions had the potential of contributing to the spread of radioactive contamination. The conditions observed by the inspectors were within the protected area and within the radiological controlled area. The licensee acknowledged the inspectors observations and stated that they would review the handling and storage practices of contaminated items in this area.

The inspectors reviewed licensee records and confirmed that waste stream sampling and analysis had been performed at the proper intervals. Analyses were performed independently by a vendor. The licensee performed confirmatory analyses and updated the waste classification computer software routinely, based on the results of the vendor analyses.

The inspectors reviewed selected radiological analysis records included in transportation documentation and verified that waste shipments were classified properly.

5 Shipping of Low-Level Wastes for Disposal, and Transportation of Other Radioactive Material

The inspectors observed shipping and receipt of radioactive materials, interviewed licensee personnel, and reviewed past shipping records, to determine compliance with the requirements of 10 CFR 20.2006, 10 CFR Part 71, and 49 CFR Parts 172 through 178.

The inspectors verified that the licensee had registered as a user of NRC approved packages and had a NRC approved quality assurance program for packages. Copies of applicable certificates of compliance, current regulations, and burial licenses were maintained by the licensee.

The inspectors observed licensee representatives as they packaged a shipment of potentially contaminated measuring and testing equipment for transport. Representatives from the health physics and maintenance organizations worked with members of the radioactive materials control group to prepare the shipment. While observing shipment preparation, the inspectors reviewed Health Physics Procedure S0123-VII-8.2, "Shipment of Radioactive Materials," Revision 11 and identified no problems with the licensee preparations. During the review, the inspectors evaluated the appropriateness of the package labeling and marking, the performance of radiation surveys, and the instructions provided to the transport vehicle driver. All aspects of transportation preparation were conducted properly.

The inspectors also observed the surveying and receiving of incoming radioactive shipments and verified that the licensee representatives followed the instructions of Health Physics Procedure S0123-VII-8.2.10, "Receipt of Radioactive Material," Revision 6, and that the instructions were in accordance with the requirements of 10 CFR 20.1906.

Selected shipping records were reviewed by the inspectors. The inspectors confirmed that proper shipping manifests were prepared, when appropriate, and included with the shipping documents. Checklists and radiation surveys of packages and vehicles were completed properly.

The inspectors verified that the individuals answering the emergency number included on the licensee's shipping papers had sufficient information to respond to potential questions from emergency workers, should there be an accident involving the radioactive shipment.

ATTACHMENT 1

1 PERSONS CONTACTED

1.1 Licensee Personnel

- *E. Bennett, Quality Assurance Engineer
- *C. Brandt, Quality Assurance Engineer
- P. Edmonds, Radioactive Materials Control Technician
- *P. Elliot, Radioactive Materials Control General Foreman
- *S. Enright, Radioactive Materials Control Supervisor
- D. Franklin, Nuclear Regulatory Affairs Compliance Engineer
- *P. Knapp, Health Physics Manager
- J. Madigan, Health Physics Supervisor
- *W. Marsh, Nuclear Regulatory Affairs Manager
- *L. Quinn, Radioactive Materials Shipping Supervisor

1.2 NRC Personnel

- *J. Sloan, Senior Resident Inspector
- J. Russell, Resident Inspector

*Denotes personnel that attended the exit meeting. In addition to the personnel listed, the inspector contacted other personnel during this inspection period.

2 EXIT MEETING

An exit meeting was conducted on December 8, 1995. During this meeting, the inspector reviewed the scope and findings of the report. The licensee did not express a position on the inspection findings documented in this report. The licensee did not identify as proprietary, any information provided to, or reviewed by the inspector.

ATTACHMENT 2

QUALITY ASSURANCE ACTIVITY OBSERVATIONS

AOR95-07758. "Radioactive Material Control," performed November 15-17, 1995.
AOR95-04367. "Dry Active Waste Sorting." August 21, 1995
AOR95-02390. "Radioactive Material Labeling." August 11, 1995
AOR95-04586. "Tailboard: High Rad Trash Removal." August 28, 1995
AOR95-04706. "Control of Radioactive Materials." August 29, 1995
OBS 052602-95. "U3C8 New Fuel Interim Receipt/Storage." May 26, 1995
OBS 031702-95. "Receipt of Radioactive Material." March 17, 1995
OBS 040411 95. "Sorting of High Level Dry Active Waste." April 4, 1995
OBS 020726-95. " Walkdown of the Radwaste Building"

QUALITY ASSURANCE SURVEILLANCES

SOS-026-95. "Receipt of Radioactive Material: New Fuel." May 15, 1995
SOS-033-95. "Solid Radioactive Waste Packaging." June 5, 1995
SOS-233-94. "Health Physics and Engineering Request to California Department of Health Services for Exempted Disposal of Very Low Level Radioactive Waste." December 29, 1994

INVESTIGATION REPORTS

Health Physic Division Investigation Report DIR 94-01. "Shipment of Radioactive Waste in Non-Conformance with Certificate of Compliance for the 10-142 (Type B) Cask, approved June 21, 1994
Inter-Divisional Incident Report IDIR 95-018. "Shipment of Ex-core Detectors." approved June 21, 1995
Inter-Divisional Investigation Report IDIR 95-027. "Limited Quantity Shipment Delivered Without Proper Notification," approved September 25, 1995