UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-8064

February 11, 2002

Harold B. Ray, Executive Vice President
Southern California Edison Co.
San Onofre Nuclear Generating Station
P.O. Box 128
San Clemente, California 92674-0128

SUBJECT: SAN ONOFRE NUCLEAR GENERATING STATION, UNITS 2 AND 3 - NRC RADIATION SAFETY TEAM INSPECTION REPORT 50-361/02-03; 50-362/02-03

Dear Mr. Ray:

On January 11, 2002, the NRC completed an inspection at your San Onofre Nuclear Generating Station, Units 2 and 3. The enclosed report documents the inspection findings which were discussed with Mr. R. W. Krieger, Vice President, Nuclear Generation, and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel. Specifically, the inspectors evaluated the inspectable areas within the Radiation Protection Strategic Performance Area which are scheduled for review every two years. These areas are:

- Radiation Monitoring Instrumentation
- Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems
- Radioactive Material Processing and Transportation
- Radiological Environmental Monitoring Program and Radioactive Material Control Program

No findings of significance were identified.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Should you have any questions concerning this inspection, we will be pleased to discuss them with you.

Sincerely,

/RA/

Gail M. Good, Chief
Plant Support Branch
Division of Reactor Safety

Dockets: 50-361; 50-362
Licenses: NPF-10; NPF-15

Enclosure:
NRC Inspection Report
50-361/02-03; 50-362/02-03

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ENCLOSURE

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

Dockets:	50-361; 50-362
Licenses:	NPF-10; NPF-15
Report No.:	50-361/02-03; 50-362/02-03
Licensee:	Southern California Edison Co.
Facility:	San Onofre Nuclear Generating Station, Units 2 and 3
Location:	5000 S. Pacific Coast Hwy. San Clemente, California
Dates:	January 7-11, 2002
Team Leader	Larry Ricketson, P. E., Senior Health Physicist
Inspectors:	Michael P. Shannon, Senior Health Physicist Daniel R. Carter, Health Physicist James S. Dodson, Health Physicist
Approved By:	Gail M. Good, Chief, Plant Support Branch Division of Reactor Safety
ATTACHMENT:	Supplemental Information

SUMMARY OF FINDINGS

San Onofre Nuclear Generating Station, Units 2 and 3
NRC Inspection Report 50-361/02-03; 50-362/02-03

IR 05000361-02-03, IR 05000362-02-03; on 1/07/2002-1/11/2002; Southern California Edison; San Onofre Nuclear Generating Station, Units 2 and 3; Radiation Safety Team Inspection

The inspection was conducted by a team of four region-based inspectors. Based on the results of the inspection, no findings of significance were identified. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using IMC 0609, "Significance Determination Process," (SDP). Findings for which the SDP does not apply are indicated by "No Color" or by the severity level of the applicable violation. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described at its Reactor Oversight Process website at http://www.nrc.gov/NRR/OVERSIGHT/index.html.

A. Inspector Identified Findings

No findings of significance were identified.

B. Licensee Identified Violations

A violation of very low significance which was identified by the licensee was reviewed by the inspectors. Corrective actions taken or planned by the licensee appear reasonable. This violation is listed in Section 4OA7 of this report.

Report Details

2. RADIATION SAFETY
Cornerstones: Occupational Radiation Safety [OS] and Public Radiation Safety [PS]

2OS3 Radiation Monitoring Instrumentation (71121.03)

a. Inspection Scope

To evaluate the adequacy of the programs to calibrate radiation monitoring instruments and to provide self-contained breathing apparatus, the inspectors interviewed cognizant licensee personnel, observed instrumentation in the field, and compared the following items to regulatory requirements:

- Calibration, operability, and alarm setpoint, when applicable, of selected radiation detection instrumentation (Quicky and Accuscan whole-body counters, the Gamma 60 and IPM8 personnel monitors, and RO-2 and Teletector portable radiation instruments), continuous air monitors, electronic alarming dosimeters, personnel contamination monitors, area radiation monitors, and containment high range monitor (Unit 3, Train B)

- Calibration and alarm setpoint of selected process radiation monitoring instrumentation (Unit 2, Train A, Control Room Intake; Unit 2, Train A, Fuel Handling Building; and Unit 3, Train A, Containment Airborne)

- Calibration source traceability

- Calibration expiration and source response check currency of radiation detection instruments staged for use

- The status of self-contained breathing apparatuses staged and ready for use in the plant and associated surveillance records

- The licensee's capability for refilling and transporting self-contained breathing apparatus air bottles to and from the control room and operations support center during emergency conditions

- Control room operator and emergency response personnel training and qualifications for use of self-contained breathing apparatus

- Radiation protection department self-assessment reports dated May 4 and July 31, 2001, and sections of Quality Assurance Audit Report SCES-009-010 that pertained to the radiation monitoring instrumentation and self-contained breathing apparatus programs

- Selected corrective action documents that involved radiation monitoring instrument deficiencies or self-contained breathing apparatuses initiated since

the previous inspection in this area in February 2001 (AR 01020066, AR 010201325, AR 010200413, AR 010300061, AR 01031160, AR 01031068, AR 11200256, AR 011201176, and AR 011211131)

b. Findings

No findings of significance were identified.

2PS1 Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems (71122.01)

a. Inspection Scope

To ensure that the gaseous and liquid effluent processing systems were maintained so that radiological releases were properly mitigated, monitored, and evaluated with respect to public exposure, the inspectors interviewed cognizant personnel, walked down the major components of the gaseous and liquid release systems, reviewed the following items, and compared the results with regulatory requirements:

- 1999 and 2000 Radiological Effluent Release Report
- Changes to the Offsite Dose Calculation Manual and to the radioactive waste system design and operation
- Anomalous results, if any, reported in the Radiological Effluent Release Report
- Effluent radiological occurrence performance indicator incidents
- Sample collection and analysis of liquid and gaseous effluents
- Selected radioactive liquid waste release permits and associated projected doses to members of the public
- Compensatory sampling and radiological analyses conducted when effluent monitors were declared out-of-service
- Monthly, quarterly, and annual dose calculations
- Air cleaning system surveillance test results
- Surveillance test results for the stack and vent flow rates
- Records of instrument calibrations performed since the last inspection for each point of discharge effluent radiation monitor and flow measurement device
- Effluent radiation monitor alarm setpoint values
- Calibration records of counting room instrumentation associated with effluent monitoring and release activities

- Quality control records for the counting room instruments
- Second Quarter Chemistry Division Performance Assessment
- Surveillance Report S0S-052-01
- Selected corrective action documents that involved the radioactive effluent treatment and monitoring program or engineered safety feature air filtration systems initiated since the previous inspection in this area in June 2001 (AR 10700550, AR 010700840, AR 10701402, AR 011201129, and AR 011201822)

b. Findings

No findings of significance were identified.

2PS2 Radioactive Material Processing and Transportation (71122.02)

a. Inspection Scope

No significant radioactive shipments were conducted during the inspection. Therefore, no direct observations could be made. To verify that the licensee's radioactive material processing and transportation program complied with the requirements of 10 CFR Parts 20, 61, and 71 and Department of Transportation regulations contained in 49 CFR Parts 170-189, the inspectors interviewed licensee personnel, walked down liquid and solid radioactive waste processing systems, reviewed the following items, and compared the results with regulatory requirements:

- Radioactive material processing and shipping procedures
- The status of radioactive waste process equipment that was not operational and/or abandoned in place
- Changes made to the radioactive waste processing systems since the last inspection in January 2000
- Waste stream mixing and/or sampling procedures, methodology for waste concentration averaging, and waste classification procedures
- Radio-chemical sample analysis results for each of the radioactive waste streams
- The use of scaling factors and calculations used to account for difficult to measure radionuclides
- Changes in waste stream composition due to changing operational parameters and analysis updates

- Shipment packaging, surveying, labeling, marking, placarding, vehicle checks, emergency instructions, disposal manifest, shipping papers provided to the driver, and licensee verification of shipments

- Transport cask certificates of compliance and cask loading and closure procedures

- Transferee's licenses and state/DOT permits

- Training program for the conduct of radioactive waste/material processing, packaging and shipping activities

- Eight nonexcepted package shipment records (00-1004, 01-1014, 01-1019, 01-1020, 01-1036, 01-2002, 01-2006, and 01-2007)

- Nuclear Oversight Division Audit SCES-006-00, and seven self assessments (Health Physics Division First Quarter 2000, Second Quarter 2000, Third Quarter 2000, Fourth Quarter 2000, First Quarter 2001, Second Quarter 2001, and Third Quarter 2001) related to the radioactive material and transportation programs performed since the last inspection in January 2000

- Selected corrective action documents involved in the radioactive material processing and shipping programs initiated since the previous inspection in this area in January 2000 (AR 000100598, AR 000901130, AR 000901131, AR 001000361, AR 001001012, AR 001001201, AR 001001640, AR 010301157, AR 010401162, AR 010501190, AR 011201762, and AR 020100183)

b. Findings

No findings of significance were identified.

2PS3 Radiological Environmental Monitoring Program and Radioactive Material Control Program (71122.03)

a. Inspection Scope

To verify that the Radiological Environmental Monitoring Program was implemented consistent with the licensee's Technical Specifications and/or Offsite Dose Calculation Manual, the inspectors interviewed cognizant licensee staff members, reviewed the following areas or items, and compared the results to regulatory requirements.

- Preparation of airborne particulate and charcoal sample holders for sample collection and shipment

- Meteorological instrument data displays at the control rooms

- Nine environmental air sampling stations (1, 7, 9, 10, 11, 12, 13, 14, and 15), one vegetation sampling station (6), and seven thermoluminescent dosimetry stations (10, 12, 40, 65, 66, 67, and 74)

- Implementing procedures for the radiological environmental monitoring program
- Number and location of the environmental sampling stations as specified in the Offsite Dose Calculation Manual
- Environmental sample analytical results
- Calibration and maintenance records for environmental air sampling equipment and radiation measurement instrumentation
- Changes to the radiological environmental monitoring program
- 1998, 1999, and 2000 Annual Radiological Environmental Operating Reports
- The environmental laboratory's performance in the interlaboratory comparison program
- Implementing procedures for the meteorological monitoring program
- Meteorological instrument operability, reliability, and annual meteorological data recovery
- Nuclear Oversight Division Quality Assurance Audit Report SCES-910-99, surveillance reports (028-00 and 030-01), and NUPIC audits (DE&S 1-98, OEES-1-99, and DESEL-1-01)

No material was released from the restricted area during the inspection. Therefore, no direct observation could be performed. However, to ensure that the licensee's surveys and controls were adequate to prevent the inadvertent release of licensed materials into the public domain, the following items were reviewed and compared with regulatory requirements:

- Procedures, methods, and instruments used to survey, control, and release materials from the radiologically controlled and restricted areas
- Calibration procedures and records for instruments used to perform radiological surveys prior to material release
- Detection sensitivities of radiation survey instruments used for the release of potentially contaminated materials from the radiologically controlled and restricted areas
- Criteria used for the unrestricted release of potentially contaminated material from the restricted area
- Nuclear Oversight Division surveillance reports (SOS-019-00 and SOS-005-01)
- Selected corrective action documents involved with the radiological environmental monitoring program or radioactive material control program

initiated since January 1, 2000 (AR 000401230, AR 001100288, AR 001100733, AR 010100381, AR 010200774, AR 010400644, AR 010501171, AR 010900750, AR 010901104, AR 011001703, and ACE 000800974)

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

4OA6 Meetings

.1 Exit Meeting Summary

The inspectors presented the inspection results to Mr. R. Krieger, Vice President, Nuclear Generation, and other members of licensee management at an exit meeting on January 11, 2002. The licensee acknowledged the findings presented.

The inspectors asked the licensee whether or not any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

4OA7 Licensee Identified Violations

The following finding of very low safety significance was identified by the licensee and is a violation of NRC requirements which meets the criteria of Section VI of the NRC Enforcement Policy, NUREG-1600 for being dispositioned as a non-cited violation. If you deny this non-cited violation, you should provide a response with the basis for your denial, within 30 days of the date of this inspection report, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington DC 20555-0001; with copies to the Regional Administrator, Region IV; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at the San Onofre Nuclear Generating Station, Units 2 and 3, facility.

NCV Tracking Number	Requirement Licensee Failed to Meet
50-361/362/0203-01	Technical Specification 5.5.1 requires procedures for the control of radioactivity. Procedure SO123-VII-20.9.2, "Material Release Surveys," Revision 3, Section 6.1, states that the criterion for items released from the Restricted Area is, "No detectable licensed activity above background." On both August 18, 2000, and October 31, 2001, the licensee identified an example in which detectable radioactive material was inadvertently released from the restricted area. These two events were entered into the licensee's corrective action program as Action Requests AR 000800974 and AR 011001703. This violation is being treated as a non-cited violation.

The safety significance of this finding was determined to very low by the Public Radiation Safety Significance Determination Process because the public exposure associated with each item was less than 5 millirem and there were fewer than six events.

ATTACHMENT

SUPPLEMENTAL INFORMATION

PARTIAL LIST OF PERSONS CONTACTED

Licensee

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D. Axline, Licensing Engineer,
G. Cook, Supervisor, Compliance
B. Corbett, Supervisor, Health Physics Technical Support
D. Dick, Supervisor, Effluent Chemistry
P. Elliott, Supervisor, Radwaste
M. Farmer, Supervisor, Health Physics
A. Gray, Supervisor, Radwaste
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M. Humphrey, Supervisor, Health Physics
R. Krieger, Vice President, Nuclear Generation
M. Lewis, Specialist, Health Physics
F. Liu, Engineer, Maintenance Engineering
J. Madigan, Manager, Health Physics
D. McBride, Supervisor, Radiation Monitoring
R. McCann, Specialist, Effluent Chemistry
D. Nunn, Vice President, Engineering and Technical Services
A. Scherer, Manager, Nuclear Oversight and Regulatory Affairs

NRC

J. Kramer, Resident Inspector

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

None.

Opened and Closed During this Inspection

50-361/362/0203-01 NCV Release of radioactive material from the restricted area.

Previous Items Closed

None.