



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

November 21, 2001

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: NRC ROUTINE INSPECTION REPORT 50-361/01-12; 50-362/01-12

Dear Mr. Ray:

On November 3, 2001, the NRC completed an inspection at your San Onofre Nuclear Generating Station, Units 2 and 3, facility. The enclosed report documents the inspection findings, which were discussed on November 2, 2001, with Mr. R. Krieger and other members of your staff.

This 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. Within these areas, the inspection consisted of selected examination of procedures and representative records, observations of activities, and interviews with personnel.

Since September 11, 2001, San Onofre Nuclear Generating Station has assumed a heightened level of security based on a series of threat advisories issued by the NRC. Although the NRC is not aware of any specific threat against nuclear facilities, the heightened level of security was recommended for all nuclear power plants and is being maintained due to the uncertainty about the possibility of additional terrorist attacks. The steps recommended by the NRC include increased patrols, augmented security forces and capabilities, additional security posts, heightened coordination with local law enforcement and military authorities, and limited access of personnel and vehicles to the site.

The NRC continues to interact with the Intelligence Community and to communicate information to Southern California Edison Co. In addition, the NRC has monitored maintenance and other activities which could relate to the site's security posture.

Circumstances affecting the financial viability of Southern California Edison Co. have continued to evolve during this inspection period. Actions have been initiated by the State of California and Southern California Edison Co. to address the impacts of these financial challenges. The NRC has exercised communications channels to better understand your planned and implemented actions, especially as they relate to your responsibility to safely operate the San Onofre reactors. NRC inspections, to date, have confirmed that you continue to operate these reactors safely and ensure the health and safety of the public.

Based on the results of this inspection, the NRC has identified two issues that were evaluated under the risk significance determination process as having very low safety significance (Green). The NRC has also determined that violations are associated with these issues. These violations are being treated as noncited violations (NCVs), consistent with Section VI.A of the Enforcement Policy. These NCVs are described in the subject inspection report. If you contest the violation or significance of these NCVs, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC, 20555-0001, with copies to the Regional Administrator, U.S. Nuclear Regulatory Commission, Region IV, 611 Ryan Plaza Drive, Suite 400, Arlington, TX, 76011; the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC, 20555-0001; and the NRC Resident Inspector at the San Onofre Nuclear Generating Station, Units 2 and 3, facility.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response will be made 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/NRC/ADAMS/index.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/

Kriss M. Kennedy, Chief
Project Branch C
Division of Reactor Projects

Dockets: 50-361
50-362

Licenses: NPF-10
NPF-15

Enclosure:
NRC Inspection Report
50-361/01-12; 50-362/01-12

cc w/enclosure:
Chairman, Board of Supervisors
County of San Diego
1600 Pacific Highway, Room 335
San Diego, California 92101

Alan R. Watts, Esq.
Woodruff, Spradlin & Smart
701 S. Parker St. Suite 7000
Orange, California 92868-4720

Sherwin Harris, Resource Project Manager
Public Utilities Department
City of Riverside
3900 Main Street
Riverside, California 92522

R. W. Krieger, Vice President
Southern California Edison Company
San Onofre Nuclear Generating Station
P.O. Box 128
San Clemente, California 92674-0128

David Spath, Chief
Division of Drinking Water and
Environmental Management
P.O. Box 942732
Sacramento, California 94234-7320

Michael R. Olson
Sr. Energy Administrator
San Diego Gas & Electric Company
P.O. Box 1831
San Diego, California 92112-4150

Ed Bailey, Radiation Program Director
Radiologic Health Branch
State Department of Health Services
P.O. Box 942732 (MS 178)
Sacramento, California 94327-7320

Steve Hsu
Radiologic Health Branch
State Department of Health Services
P.O. Box 942732
Sacramento, California 94327-7320

Mayor
City of San Clemente
100 Avenida Presidio
San Clemente, California 92672

Southern California Edison Co.

-4-

Truman Burns/Robert Kinosian
California Public Utilities Commission
505 Van Ness, Rm. 4102
San Francisco, California 94102

Robert A. Laurie, Commissioner
California Energy Commission
1516 Ninth Street (MS 31)
Sacramento, California 95814

Douglas K. Porter
Southern California Edison Company
2244 Walnut Grove Avenue
Rosemead, California 91770

Dwight E. Nunn, Vice President
Southern California Edison Company
San Onofre Nuclear Generating Station
P.O. Box 128
San Clemente, California 92674-0128

Electronic distribution from ADAMS by RIV:
 Regional Administrator (**EWM**)
 DRP Director (**KEB**)
 DRS Director (**ATH**)
 Senior Resident Inspector (**CCO1**)
 Branch Chief, DRP/C (**KMK**)
 Senior Project Engineer, DRP/C (**JMK**)
 Staff Chief, DRP/TSS (**PHH**)
 RITS Coordinator (**NBH**)
 Scott Morris (**SAM1**)
 NRR Event Tracking System (**IPAS**)
 SONGS Site Secretary (**SFN1**)
 Dale Thatcher (**DFT**) [if it includes Maintenance]

R:_SO23\SO2001-12RP-CCO.wpd

RIV:RI	SRI	C:DRS/PSB	C:DRP/C
JGKramer	CCOsterholtz	GMGood	KMKennedy
<i>E - KMKennedy</i>	<i>E - KMKennedy</i>	<i>/RA/</i>	<i>/RA/</i>
11/21/01	11/21/01	11/21/01	11/21/01

OFFICIAL RECORD COPY

T=Telephone

E=E-mail

F=Fax

ENCLOSURE

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

Dockets: 50-361
50-362

Licenses: NPF-10
NPF-15

Report: 50-361/01-12
50-362/01-12

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: September 23 through November 3, 2001

Inspectors: C. C. Osterholtz, Senior Resident Inspector
J. G. Kramer, Resident Inspector

Approved By: Kriss Kennedy, Chief, Project Branch C

SUMMARY OF FINDINGS

San Onofre Nuclear Generating Station, Units 2 and 3
NRC Inspection Report 50-361/01-12; 50-362/01-12

IR05000361-01-12, IR05000362-01-12: 09/23-11/03/2001; Southern California Edison;
San Onofre Nuclear Generating Station, Units 2 & 3; Resident Report; Access Control.

The inspection was conducted by resident inspectors. This inspection identified two Green findings, both of which were noncited violations. The significance of issues is indicated by their color (Green White, Yellow, Red) using IMC 0609, "Significance Determination Process" (SDP).

Cornerstone: Physical Protection

- Green. The inspectors identified a noncited violation for the failure of a licensee employee to maintain visual contact with visitors while performing escort duties. The escort entered a vital area and left the visitors on the opposite side of the door, unattended, in the protected area. This was a violation of the Physical Security Plan. A human performance deficiency in the escorting of visitors directly contributed to the violation.

This finding was of very low safety significance because of the short duration the visitors were left unattended and subsequently observed by the inspectors (Section 3PP2.1).

- Green. The inspectors identified a noncited violation for the failure of Security personnel, until prompted by the inspectors, to perform a complete search of a station fire truck prior to the truck entering the protected area. This was a violation of the Physical Security Plan. A human performance deficiency in the search of the vehicle directly contributed to the violation.

This finding was of very low safety significance because the inspectors prompted Security personnel to complete the search prior to allowing the vehicle into the protected area (Section 3PP2.2).

Report Details

Summary of Plant Status:

Unit 2 began the inspection period at approximately 98.5 percent power. On October 13, 2001, the operators shut down the reactor to perform repairs to a moisture separator reheater and replace three of the four reactor coolant pump seal packages. On October 14, the unit entered Mode 5, with midloop operations conducted on October 16 and 17. On October 20, the unit entered Mode 4 and the following day entered Mode 3. On October 22, operators performed a reactor startup and placed the unit online the next day. On October 24, the unit reached approximately 98.5 percent power and operated at that level throughout the remainder of this inspection period. Unit 3 operated at essentially 100 percent power throughout this inspection period.

1. **REACTOR SAFETY**

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity, Emergency Preparedness

1R04 Equipment Alignments (71111.04)

a. Inspection Scope

On October 24, 2001, the inspectors performed a partial walkdown of the Train A control room emergency air cleanup system during an outage of the Train B control room emergency air cleanup system. The inspectors used control board and local position indications to verify that portions of the Train A system were properly aligned. In addition, the inspectors verified that control room emergency air cleanup system boundary doors were closed and structures were not breached.

b. Findings

No findings of significance were identified.

1R05 Fire Protection (71111.05)

.1 Routine Fire Inspection Tours - Units 2 and 3

a. Inspection Scope

The inspectors performed routine fire inspection tours, and reviewed relevant records, for the following plant areas important to reactor safety:

- Safety-related Pump Room 015 (Unit 2)
- Electrical cable tunnel area (Unit 2)

The inspectors observed the material condition of plant fire protection equipment, the control of transient combustibles, and the operational status of barriers. The inspectors compared in-plant observations with the commitments in the Updated Fire Hazards Analysis Report and reviewed Transient Combustible Request 010900703-1 associated

with Pump Room 015.

b. Findings

No findings of significance were identified.

.2 Annual Fire Drill Observation - Units 2 and 3

a. Inspection Scope

On October 31, 2001, the inspectors observed an annual fire drill conducted by the licensee with the participation of firefighters from Camp Pendleton. The inspectors reviewed Procedure SO123-XIII-21, "Fire Department Drills," Revision 7, and discussed the details of the drill with Fire Protection personnel. The inspectors also attended the postdrill critique.

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessments and Emergent Work Evaluation (71111.13)

a. Inspection Scope

The inspectors reviewed the effectiveness of risk assessment and risk management during an outage of the following Unit 2 components: Train A shutdown cooling heat exchanger outlet Valve 2HV8150, Train A main steam dump to atmosphere Valve 2HV8419, and Train A Emergency Diesel Generator 2MG002. The inspectors discussed the associated risk analysis and component restoration with the shift technical advisor.

The inspectors reviewed the effectiveness of risk assessment and emergent work associated with the failure of the Unit 3 actuator oil pump motor for low pressure turbine Stop Valve 2200V. The inspectors discussed the failure and corrective actions with Engineering personnel. The inspectors also reviewed Action Request (AR) 010901164 and Maintenance Order 01091297001.

The inspectors reviewed the effectiveness of risk assessment and emergent work associated with the failure and subsequent repair of a bellows assembly in Unit 2 moisture separator Reheater 2ME112. The inspectors reviewed photographs of the internal damage caused by the failure and discussed corrective actions and work progress with Engineering personnel. The inspectors also reviewed AR 010100770.

The inspectors verified the accuracy and completeness of risk assessment documents and ensured that the licensee's program was being appropriately implemented. The inspectors also ensured that plant personnel were aware of the appropriate licensee-established risk category, according to the risk assessment results and licensee program procedures.

b. Findings

No findings of significance were identified.

1R19 Postmaintenance Testing (71111.19)

a. Inspection Scope

Upon the licensee's completion of replacement of the actuator oil pump motor for Unit 3 low pressure turbine Stop Valve 2200V, the inspectors reviewed the postmaintenance testing conducted on September 28, 2001, to verify that the test procedures and activities adequately demonstrated system operability. The inspectors reviewed AR 010901164, Maintenance Order 01091297001, and Procedure SO23-10-3, "Operation of the Turbine Control and Protection System," Revision 11.

Upon the completion of maintenance activities associated with Emergency Diesel Generator 2G003 on October 5, 2001, the inspectors reviewed the postmaintenance testing to verify that the test procedures and activities adequately demonstrated operability. The inspectors reviewed Procedure SO23-3-3.23, "Diesel Generator Monthly Test," Revision 19, and Work Authorization Record 2-0101437. In addition, the inspectors discussed the postmaintenance test with the system engineer and Operations personnel.

Upon the completion of maintenance activities associated with auxiliary feedwater steam supply Valve 2HV4716 on October 21, 2001, the inspectors reviewed the postmaintenance testing to verify that the test procedures and activities adequately demonstrated operability. The inspectors reviewed portions of Procedures SO23-3-3.16.2, "Auxiliary Feedwater Flow Testing," Revision 6; SO23-3-3.31.6, "Main and Auxiliary Feedwater Valve Testing - Offline," Revision 4; and SO23-3-3.60.6, "Auxiliary Feedwater Pump and Valve Testing," Revision 7.

b. Findings

No findings of significance were identified.

1R20 Refueling and Outage Activities (71111.20)

a. Inspection Scope

During the Unit 2 outage, the inspectors periodically monitored operational status of the shutdown cooling system and the vital and nonvital electrical power distribution systems. On October 16, 2001, the inspectors observed entry into midloop operations and, on October 22, 2001, the inspectors observed portions of the reactor startup. The inspectors reviewed Procedures SO23-3-1.8, "Draining the Reactor Coolant System," Revision 19, and SO23-3-1.1, "Reactor Startup," Revision 23, as part of the inspection.

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing (71111.22)

a. Inspection Scope

The inspectors observed a portion of, and reviewed the documentation for, the surveillance test of Unit 2 component cooling water Pump 2MP024 performed on October 25, 2001, to verify that the system and components were capable of performing their intended safety functions and to assess their operational readiness. Specifically, the inspectors reviewed Procedure SO23-3-3.60.3, "Component Cooling Water and Seismic Makeup Pump Test," Revision 3, and inservice pump test Record 2P024-10-01.

b. Findings

No findings of significance were identified.

3. **SAFEGUARDS**

Cornerstone: Physical Protection

3PP2 Access Control (71130.02)

.1 Escorting Personnel

a. Inspection Scope

The inspectors observed the performance of a licensee employee who was escorting visitors. The inspectors discussed escort responsibilities with the employee, visitors, and security shift commander. The inspectors reviewed the Physical Security Plan, the safeguards event log, and ARs 010801436 and 011000371.

b. Findings

While performing escort duties, a licensee employee failed to maintain visual contact with the visitors. The escort entered a vital area and left the visitors on the opposite side of the door, unattended, in the protected area. This was a violation of the Physical Security Plan and was characterized as a noncited violation and as Green using the Significance Determination Process. A human performance deficiency in the escorting of visitors directly contributed to the violation.

On October 9, 2001, the inspectors observed two visitors attempting to use a visitor badge to gain access to the control room. The inspectors questioned the visitors as to their purpose of entering the control room. The visitors indicated that they were trying to enter the control room to join their escort, who had just entered the control room. The

inspectors told them that they did not have access to the control room and to remain by the inspectors until the escort returned and until Security personnel could be notified. Approximately 30 seconds later the escort exited the control room to retrieve the visitors.

The inspectors questioned the escort regarding escort responsibilities. The inspectors determined that the escort was unfamiliar with some protected area escort responsibilities, specifically, with the methodology to escort visitors into the control room (a vital area). The escort focused on not tailgating (more than one person entering an area through a security door before the door closes) when entering a vital area and therefore lost custody of the visitors when entering the control room.

The inspectors evaluated the significance of the issue. The inspectors determined that the issue had a credible impact on safety since visitors (personnel not authorized unescorted access to the protected area) were left unattended in the protected area (Group 1 question answered yes). The issue involved a failure to meet the requirements of the Physical Security Plan (Group 2 question answered yes). The inspectors used the physical protection significance determination process to further evaluate the issue. The inspectors concluded that this issue was a vulnerability in access control and not a malevolent act. The inspectors reviewed the safeguards event log and identified one similar event where a licensee employee did not maintain custody of a visitor in the protected area in August 2001 (AR 010801436). The inspectors concluded there were not greater than two similar findings in the last four quarters and that the issue was Green.

Physical Security Plan, Section 5.2.1.1, states, in part, that all personnel who are not authorized unescorted access to the protected area are accompanied while in the protected area by an individual who has been granted unescorted access to the protected area and that the escort be able to maintain visual observation of escorted personnel in order to detect any unauthorized activities. Contrary to the above, a licensee employee failed to accompany and maintain visual observation of personnel who were not authorized unescorted access to the protected area. The escort left visitors unaccompanied in the protected area when the escort entered the control room. This violation of the Physical Security Plan is being treated as a noncited violation (NCV 361; 362/2001012-01), consistent with Section VI.A of the Enforcement Policy. This violation is in the licensee's corrective action program as AR 011000371.

.2 Vehicle Search

a. Inspection Scope

The inspectors observed Security personnel perform a search of a San Onofre fire truck in the vehicle search facility prior to the vehicle entering the protected area for a fire drill. The inspectors discussed the observations with Security management. The inspectors reviewed the Physical Security Plan, Procedure SO23-IV-5.3.5, "Vehicle Search Facility/Area Search, Inspection and Vehicle Escort," Revision 0, and Procedure SO23-IV-5.4, "Vehicle Barrier System/Protected Area/Vital Area Emergency Access," Revision 0.

b. Findings

Security personnel failed, until prompted by the inspectors, to perform a complete search of a station fire truck prior to the truck entering the protected area. This was a violation of the Physical Security Plan and was characterized as a noncited violation and as Green using the Significance Determination Process. A human performance deficiency in the search of the vehicle directly contributed to the violation.

On October 31, 2001, the inspectors observed Security personnel perform a search of a station fire truck in the vehicle search facility prior to entering the protected area for a fire drill. During the truck search, a security officer performed a cursory "pat down" of a bag in one of the compartments of the truck. The security officer then had that compartment closed and moved on to the next area of the truck to search, which was the cab area. The security officer exited the cab area of the truck and the inspectors questioned the officer on the adequacy of the search of a duffle-style bag in the previously searched compartment. The security officer then went back to that compartment and removed the bag from the truck. The officer opened the various compartments of the bag and performed a search of the bag's contents.

The inspectors evaluated the significance of the issue. The inspectors determined that the issue had a credible impact on safety since Security personnel did not completely search a fire truck prior to entry into the protected area until prompted by the inspectors (Group 1 question answered yes). The issue involved a failure to meet the requirements of the Physical Security Plan (Group 2 question answered yes). The inspectors used the physical protection significance determination process to further evaluate the issue. The inspectors concluded that this issue was a vulnerability in access control and not a malevolent act. The inspectors reviewed the safeguards event log and did not identify any similar events within the last 4 quarters and therefore concluded that the issue was Green.

Physical Security Plan, Section 5.2, requires, in part, that written procedures are established and implemented for controlling access of personnel, vehicles, packages, and materials to the protected area. Procedure SO23-IV-5.4, "Vehicle Barrier System/Protected Area/Vital Area Emergency Access," Revision 0, Section 6.7, provides written instructions for emergency response access controls during drills or exercises. The note prior to step 6.7.1 states, in part, that active vehicle barrier and protected area searches are not waived during drills. Step 6.7.1 requires, in part, to search emergency vehicles at the active vehicle barrier and/or in the vehicle search facility. Contrary to the above, security personnel failed to perform a complete search of a fire truck entering the protected area for a drill, until prompted by the inspectors. This violation of the Physical Security Plan is being treated as a noncited violation (NCV 361; 362/2001012-02), consistent with Section VI.A of the Enforcement Policy. This violation is in the licensee's corrective action program as AR 011100084.

4. OTHER ACTIVITIES

4OA1 Performance Indicator Verification (71151)

a. Inspection Scope

The inspectors verified the accuracy of data reported by the licensee for the following performance indicator to ensure that the performance indicator color was correct for both Units 2 and 3:

- MS3 Heat Removal System Unavailability (Auxiliary Feedwater)

The inspectors reviewed the performance indicator data for the last quarter of 2000 and the first three quarters of 2001. The inspectors reviewed NEI 99-02, "Regulatory Assessment Performance Indicator Guideline," and licensee operating logs. The inspectors discussed the status of the performance indicator and compilation of data with engineering personnel.

b. Findings

No findings of significance were identified.

4OA4 Crosscutting Issues

The inspectors determined that human performance deficiencies directly contributed to the two findings documented in Section 3PP2. In the first finding, a licensee employee (escort) failed to maintain visual contact of two visitors in the protected area. In the second finding, a security officer failed to perform a complete search of a fire truck prior to entering the protected area until prompted by the inspectors.

4OA5 Other

- .1 (Closed) Unresolved Item 361; 362/2000014-03: unavailable hours during heat treat of the saltwater cooling system not included in a performance indicator. The inspectors submitted a frequently asked question to determine if the licensee was properly counting and recording the unavailability hours that were associated with heat treating the saltwater cooling system (a support system for the high pressure safety injection system and the shutdown cooling system) for the MS2 and MS4 performance indicators. The response to the question (Frequently Asked Question 284) indicated that, in this specific case, the saltwater cooling system was considered available, for performance indicator tracking, during heat treating at San Onofre Nuclear Generating Station. This item is closed.

.2 Financial Status

The NRC has exercised communications channels to better understand the licensee's planned and implemented actions, especially as they relate to safely operating the reactors. The inspectors specifically reviewed the following on a weekly basis:

- Staffing of onshift operating personnel
- Corrective maintenance backlog
- Corrective action Level 1 backlog
- Reduction in safety or risk important outage activities
- Reduction in planned risk important modifications or enhancements
- Emergency Response Facility and siren availability
- Generator voltage loading
- Impact of rolling blackouts on the grid and offsite power availability
- Employee moral

NRC inspections and inspector observations, to date, have confirmed that the licensee operated the units safely and that public health and safety was, thus far, assured.

40A6 Meetings

.1 Exit Meeting Summary

The inspectors presented the inspection results to Mr. R. Krieger and other members of licensee management at an exit meeting on November 2, 2001. 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.

ATTACHMENT

SUPPLEMENTAL INFORMATION

PARTIAL LIST OF PERSONS CONTACTED

Licensee

R. Krieger, Vice President, Nuclear Generation
R. Allen, Supervisor, Reliability Engineering
C. Anderson, Manager, Site Emergency Preparedness
D. Brieg, Manager, Maintenance Engineering
J. Fee, Manager, Maintenance
M. Goettel, Manager, Business Planning and Financial Services
J. Hirsch, Manager, Chemistry
J. Madigan, Manager, Health Physics
D. Nunn, Vice President, Engineering and Technical Services
A. Scherer, Manager, Nuclear Oversight and Regulatory Affairs
M. Short, Manager, Systems Engineering
T. Vogt, Plant Superintendent, Units 2 and 3 Operations
R. Waldo, Manager, Operations

ITEMS OPENED AND CLOSED

Opened and Closed During this Inspection

361; 362/2001012-01	NCV	Loss of visual contact of visitors (Section 3PP2.1)
361; 362/2001012-02	NCV	Incomplete vehicle search (Section 3PP2.2)

Previous Items Closed

361; 362/2000014-03	URI	Unavailable hours during heat treat of the saltwater cooling system not included in a performance indicator (Section 4OA5)
---------------------	-----	--

LIST OF ACRONYMS USED

AR	action request
CFR	Code of Federal Regulations
NCV	noncited violation
NRC	Nuclear Regulatory Commission
URI	unresolved item