UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-4005

November 9, 2004

Harold B. Ray, Executive Vice President
San Onofre, Units 2 and 3
Southern California Edison Co.
P.O. Box 128, Mail Stop D-3-F
San Clemente, CA 92674-0128

SUBJECT: SAN ONOFRE NUCLEAR GENERATING STATION - NRC INTEGRATED INSPECTION REPORT 05000361/2004004; 050000362/2004004

Dear Mr. Ray:

On September 26, 2004, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your San Onofre Nuclear Generating Station, Units 2 and 3, facility. The enclosed integrated report documents the inspection findings, which were discussed on July 1, July 30, August 5, and September 24, 2004, with Mr. J. Wambold and other members of your staff.

The inspection examined activities conducted under your licenses as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your licenses. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

Based on the results of this inspection, the NRC has identified one issue that was evaluated under the risk significance determination process as having very low safety significance (Green). The NRC has also determined that a violation was associated with this issue. The violation is being treated as a noncited violation (NCV), consistent with Section VI.A of the Enforcement Policy. The NCV is described in the subject inspection report. Additionally, two licensee-identified violations, which were determined to be of very low safety significance, are listed in Section 4OA7 of this report. If you contest the violation or significance of the NCV, 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, Texas 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 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) 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/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,

/RA/

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

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

Enclosure:
NRC Inspection Report 05000361/2004004; 05000362/2004004
w/Attachment: Supplemental Information

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U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

Dockets:	50-361, 50-362
Licenses:	NPF-10, NPF-15
Report:	05000361/2004004 and 5000362/2004004
Licensee:	Southern California Edison Co. (SCE)
Facility:	San Onofre Nuclear Generating Station, Units 2 and 3
Location:	5000 S. Pacific Coast Hwy. San Clemente, California
Dates:	June 27 through September 26, 2004
Inspectors:	C. C. Osterholtz, Senior Resident Inspector, Project Branch C, DRP M. A. Sitek, Resident Inspector, Project Branch C, DRP D. R. Carter, Health Physicist, Plant Support Branch, DRS P. J. Elkmann, Emergency Preparedness Inspector, Operations Br., DRS R. P. Mullikin, Senior Reactor Inspector, Plant Engineering Branch, DRS N. L. Salgado, Senior Resident Inspector, Project Branch D, DRP
Approved By:	Kriss M. Kennedy, Chief Project Branch C Division of Reactor Projects

Enclosure

SUMMARY OF FINDINGS

IR 05000361/2004004, 05000362/2004004; 06/27 - 09/26/04; San Onofre Nuclear Generating Station, Units 2 & 3; Integrated Resident and Regional Report; Operability Evaluation.

This report covered a 3-month period of inspection by Resident and Regional office inspectors. One Green noncited violation was identified. The significance of most findings is indicated by their color (Green, White, Yellow, or Red) using Inspection Manual Chapter 0609, "Significance Determination Process." Findings for which the significance determination process does not apply may be Green or be assigned a severity level after NRC management's review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 3, dated July 2000.

A. NRC-Identified and Self-Revealing Findings

Cornerstone: Mitigating Systems

- Green. The inspectors identified a noncited violation of Technical Specification 5.5.1.1 from a self-revealing finding because the licensee failed to provide adequate instructions in a maintenance order for the replacement of a power indicating lamp in a power supply associated with the Unit 2 Train A emergency diesel generator. The implementation of the inadequate maintenance order resulted in the unplanned inoperability of the Unit 2 Train A emergency diesel generator for approximately 2 hours.

  The finding was determined to be more than minor because it affected the procedure quality attribute of the mitigating systems cornerstone. The finding was determined to have very low safety significance (Green) because the inadequate maintenance order instructions did not result in an actual loss of safety function. In addition, the fuel transfer pumps were still capable of being started locally through manual operator action (Section 1R15).

B. Licensee-Identified Violations

Violations of very low safety significance which were identified by the licensee have been reviewed by the inspectors. Corrective actions taken or planned by the licensee have been entered into the licensee's corrective action program. These violations and the associated corrective actions are listed in Section 4OA7 of this report.

REPORT DETAILS

Summary of Plant Status

Unit 2 began the inspection period at approximately 100 percent reactor power and remained at that power level throughout the inspection period.

Unit 3 began the inspection period at approximately 100 percent reactor power. On September 10, 2004, Unit 3 was reduced to approximately 85 percent reactor power in order to address minor intermittent saltwater inleakage into the feedwater system from the condenser. The circulating water pump associated with the northwest condenser hotwell was taken out of service and four condenser tubes were plugged. The inleakage stopped and Unit 3 was returned to approximately 100 percent reactor power on September 12, 2004, where it remained through the end of the inspection period.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity

1R01 Adverse Weather Protection (71111.01)

a. Inspection Scope

The inspectors reviewed the design features and procedures for protecting Units 2 and 3 mitigating systems from the adverse effects of high winds and temperatures (three inspection samples).

The inspectors reviewed Procedure S023-13-8, “Severe Weather,” Revision 3, interviewed licensee personnel, and directly observed systems and plant conditions.

The inspectors reviewed licensee actions to minimize the occurrence and impact of brush fires that are likely to occur during high temperatures and/or high winds. The inspectors examined: (1) brush growth and clearance, (2) fire department equipment and training, (3) fire department coordination with offsite firefighting organizations, and (4) past history of brush fire impact on the facility. The inspectors also reviewed Procedure S0123-XIII-4.10.7, “Fire Department Offsite Response Procedure,” Revision 3. In addition, the inspectors walked down areas around Units 2 and 3 to determine the potential hazard associated with wind-generated missiles.

The inspectors also reviewed the following three systems to ensure that their safety functions were adequately protected against high temperatures:

- Auxiliary Feedwater System
- Emergency Diesel Generators (EDGs)
- Safety Injection System

b. Findings

No findings of significance were identified.

1R04 Equipment Alignment

a. Inspection Scope

1. Partial System Walkdowns. The inspectors performed three partial walkdowns during this inspection period (three inspection samples). To evaluate the operability of the selected train or system when the redundant train or system was inoperable or out of service, the inspectors verified correct valve and power alignments by comparing positions of valves, switches, and electrical power breakers to the procedures listed below as well as applicable chapters of the Updated Final Safety Analysis Report:

- On July 6, the inspectors walked down the Unit 2 Train B EDG while the Train A EDG was out of service for planned maintenance.

- On August 20, the inspectors walked down the Unit 2 Train A EDG while the Train B EDG was out of service for planned maintenance.

- On September 1, the inspectors walked down the Unit 3 Train A component cooling water system while the Train B component cooling water system was out of service for planned maintenance.

b. Findings

No findings of significance were identified

1R05 Fire Protection (71111.05)

a. Inspection Scope

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

- Unit 3 Train A EDG
- Unit 3 Train B EDG
- Unit 2 B009 battery room
- Unit 2 B010 battery room
- Unit 2 saltwater cooling pump room
- Unit 3 Saltwater cooling pump room

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 portions of the Updated Fire Hazards Analysis Report.

b. Findings

No findings of significance were identified.

1R06 Flood Protection Measures (71111.06)

a. Inspection Scope

The inspectors performed an annual visual inspection of the plant intake structure (Units 2 and 3) to determine the operational status of seals, barriers, sumps, drains, and alarms to identify the existence of any unanalyzed flooding hazards (one inspection sample). The inspectors also reviewed Updated Safety Analysis Report Chapter 3.4, "Water Level (Flood) Design," Revision 13.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification (71111.11Q)

a. Inspection Scope

The inspectors reviewed licensed operator requalification training activities (one inspection sample), including the licensed operators' performance and the evaluators' critique. The inspectors compared performance in the simulator on August 26, 2004, with performance observed in the control room during this inspection period.

The inspectors observed high-risk operator actions, operator activities associated with the emergency plan, and reviewed previous lessons-learned items. These items were evaluated to ensure that operator performance was consistent with protection of the reactor core during postulated accidents.

b. Findings

No findings of significance were identified.

1R12 Maintenance Effectiveness (71111.12)

1. Routine Maintenance Effectiveness

a. Inspection Scope

The inspectors independently verified that the licensee appropriately handled safety significant component performance associated with saltwater cooling check valves (one inspection sample). The inspectors reviewed AR 040500132 and discussed the plan for modifying the check valves with engineering and maintenance personnel.

b. Findings

No findings of significance were identified.

2. Periodic Evaluation Reviews

a. Inspection Scope

The inspectors reviewed the San Onofre Nuclear Generating Station report documenting the performance of the last maintenance rule periodic effectiveness evaluation to confirm that it was performed in accordance with 10 CFR 50.65(a)(3) (one inspection sample). The licensee's periodic evaluation covered the period from July 1, 2001, through June 30, 2003.

The inspectors reviewed the handling of risk significant structures, systems, and components with degraded performance or degraded condition to assess the effectiveness of the licensee's evaluation and the resulting corrective actions. Inspection Procedure 71111.12, "Maintenance Effectiveness," requires 3-5 risk significant examples. The inspectors reviewed five examples: 4 kv system, dc system, component cooling water system, containment isolation system, and radiation monitoring system. Additionally, the performance of nonrisk-significant functions were monitored using plant level criteria.

The inspectors evaluated the use of performance history and industry experience to adjust the preventive maintenance requirements to adjust (a)(1) goals and to adjust the (a)(2) performance criteria. The inspectors assessed the licensee's adjustment of the scope of the maintenance rule, the licensee's adjustment of the definition of maintenance rule functional failures, the licensee's adjustment of definitions of available/unavailable hours and required hours, and the licensee's review and adjustment of condition-monitoring parameters and action levels.

The inspectors also reviewed the conclusions reached by licensee personnel with regard to the balance of reliability and unavailability for specific maintenance rule functions. This review was conducted by examining the licensee's evaluation of all risk significant functions that had exceeded performance criteria during the evaluation period.

b. Findings

No findings of significance were identified.

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

a. Inspection Scope

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

The inspectors also reviewed selected emergent work items to ensure that overall plant risk was being properly managed and that appropriate corrective actions were being properly implemented.

The inspectors reviewed the effectiveness of risk assessment and risk management for the following four activities (four inspection samples):

- Unit 3 Train A EDG 3G002 automatic voltage regulator series boost capacitor failure (AR 040700701)
- Unit 3 Train B EDG 3G003 radiator fan thermal overload trip (AR 040701362)
- Unit 3 Train B Component Cooling Water Heat Exchanger 3E002 tube leak (AR 040900059)
- Unit 2 Train B Charging Pump 2P192 water in crankcase oil (AR 040900660)

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations (71111.15)

1. Unit 2 Train A EDG 2G002 Loss of Fuel Oil Storage Tank Level Indication

a. Inspection Scope

The inspectors reviewed Unit 2 EDG 2G002 operability following the loss of the automatic functions of the fuel oil transfer system during a maintenance activity (one inspection sample).

b. Findings

Introduction. A Green, self-revealing, noncited violation of Technical Specification (TS) 5.5.1.1, was identified for the implementation of an inadequate maintenance order which rendered EDG 2G002 inoperable for approximately 2 hours.

Description. On August 3, 2004, a technician performed maintenance on the Train A EDG 2G002 fuel storage tank level instrument power supply under maintenance order (MO) 03081421000. The scope of the work in the MO required the technician to replace the power supply power indicating lamp with a WAMCO B2A-R lamp. The technician used a WAMCO B2A lamp instead, which did not include a dropping resistor in the base of the lamp. As a result, a fuse in the fuel storage tank level instrument power supply blew, causing the low-low level cutout for the fuel transfer pumps to deenergize. The inability of the fuel transfer pumps to automatically start led operations personnel to declare EDG 2G002 inoperable and to enter the action statements for TS 3.8.1, "AC Sources - Operating," in accordance with the applicable annunciator response procedure. Maintenance personnel subsequently recognized that the incorrect lamp was installed and returned the power supply to its original configuration, which allowed operators to exit the TS action statements after approximately 2 hours. The licensee determined that the technician was confused by the instructions in the MO and that the instructions in the MO were contradictory and inaccurate. Specifically, the MO problem statement implies that the WAMCO B2A lamp is the correct part, while at the same time instructing the technician to use a WAMCO B2A-R lamp. Furthermore, in the planning phase of the MO, the licensee did not recognize the impact that the lamp replacement activity could have on EDG operability.

Analysis. The failure of the licensee to provide clear instructions in the MO was considered to be a performance deficiency. The finding was determined to be more than minor because it affected the procedure quality attribute of the mitigating systems cornerstone. Based on the results of the significance determination process (Phase 1 evaluation), the finding was determined to have very low safety significance (Green) because the inadequate MO instructions did not result in an actual loss of safety function. In addition, the fuel transfer pumps were still capable of being started locally through manual operator action.

Enforcement. TS 5.5.1.1 states, in part, that written procedures shall be established, implemented, and maintained covering the applicable procedures recommended in Regulatory Guide 1.33, Revision 2, Appendix A, February 1978. Regulatory Guide 1.33, Section 9, "Procedures for Performing Maintenance," specifies that maintenance that can affect the performance of safety-related equipment should be properly preplanned and performed in accordance with documented instructions appropriate to the circumstances. Contrary to this criterion, on August 3, 2004, the licensee failed to provide adequate instructions in an MO for the replacement of a power indicating lamp in a power supply associated with the Unit 2 Train A EDG. This violation of the TSs is being treated as a noncited violation (NCV 05000361/2004004-01, failure to provide

adequate instructions for EDG maintenance) consistent with Section VI.A of the Enforcement Policy. This violation is in the licensee's corrective action program as AR 040800105.

2. Routine Operability Evaluation Reviews

a. Inspection Scope

The inspectors reviewed selected operability evaluations to evaluate technical adequacy and to verify that operability was justified. The inspectors considered the impact on compensatory measures for each condition being evaluated, and referenced the Updated Final Safety Analysis Report and TSs. The inspectors also discussed the evaluations with cognizant licensee personnel.

The inspectors reviewed four operability evaluations (four inspection samples) and cause assessments documented in the following ARs to ensure the operability was properly justified:

- AR 040801442, Unit 3 Component Cooling Water cross-train leakage
- AR 040501377, Control Room Tracer Gas Testing (Units 2 and 3)
- AR 040500047, Unit 2 High Pressure Safety Injection Valve HV-9332 degraded position indication
- AR 021001266, Unit 3 main steam isolation valve operability with degraded dump valve solenoids

b. Findings

No findings of significance were identified.

1R16 Operator Workarounds (71111.16)

a. Inspection Scope

The inspectors reviewed the following two operator workarounds (two inspection samples) to determine if the functional capability of the system or human reliability in responding to an initiating event was affected by the workaround. The inspectors evaluated the effect that the operator workaround had on the operator's ability to implement abnormal or emergency operating procedures.

- Verification of increase in amperage of Unit 3 electrical Bus 3B04 with postaccident cleanup Unit 3ME370 in service with a degraded air flow chart recorder

- Manual tripping of the Group 1 set of Unit 3 main transformer cooling fans following a main transformer fault without the use of the automatic trip function of Relay 49X-1

b. Findings

No findings of significance were identified.

1R19 Postmaintenance Testing (71111.19)

a. Inspection Scope

The inspectors observed and/or reviewed postmaintenance testing for the following seven activities (seven inspection samples) to verify that the test procedures and activities adequately demonstrated system operability:

- Unit 3 containment emergency suction line fill verification per Procedure SO23-5-1.3, “Plant Startup from Cold Shutdown to Hot Standby,” Revision 25, performed on February 9, 2003

- Unit 2 containment emergency suction line fill verification per Procedure SO23-3-2.7.2, “Filling the Containment Emergency Sump Suction Lines,” Revision 11, performed on March 2, 2004

- Unit 2 Inverter Power Supply Bus 2Y02 postmaintenance test per Procedure SO23-6-17, “Swapping Kirk Keyed Alternate Power Supply Breakers When Both Vital Buses are Energized from the Inverters,” Revision 10, performed on July 21, 2004

- Unit 3 Inverter Power Supply Bus 3Y04 postmaintenance test per Procedure SO23-6-17, “Swapping Kirk Keyed Alternate Power Supply Breakers When Both Vital Buses are Energized from the Inverters,” Revision 10, performed on July 21, 2004

- Unit 3 Pressurizer Surge Line Isolation Valve 3HV0513 postmaintenance test per MO 04030211000, performed on August 4, 2004

- Unit 3 Train A Component Cooling Water Heat Exchanger 3E001 postmaintenance test per Procedure SO23-2-8.1, “Draining and Returning to Service CCW HX E001 Saltwater Side and SWC System Piping,” Revision 2, performed on August 12, 2004

- Unit 2 EDG 2G002 postmaintenance test per Procedure SO23-3-3.23, “Diesel Generator G003 Semi-annual Surveillance,” Revision 23, performed on August 20, 2004

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing (71111.22)

a. Inspection Scope

The inspectors observed and/or reviewed performance and documentation for the following four surveillance tests (four inspection samples) to verify that the structures, systems, and components were capable of performing their intended safety functions and to assess their operational readiness:

- Unit 3 Train A EDG 3G002 24-month surveillance per Procedure SO23-3-3.23.1, "Diesel Generator Refueling Interval Tests," Revision 20, performed July 14, 2004

- Unit 3 turbine-driven Auxiliary Feedwater Pump 3P140 quarterly surveillance per Procedure SO23-3-3.60.6, "Auxiliary Feedwater Pump and Valve Testing," Revision 10, performed on July 21, 2004

- Unit 2 Battery B010 12-month surveillance per Procedure SO123-I-2.6, "Battery Performance Test and Rapid Recharge," Revision 7, performed on September 6, 2004

- Unit 2 Battery B009 12-month surveillance per Procedure SO123-I-2.6, "Battery Performance Test and Rapid Recharge," Revision 7, performed on September 20, 2004

b. Findings

No findings of significance were identified.

1R23 Temporary Plant Modifications (71111.23)

a. Inspection Scope

The inspectors reviewed the following three temporary plant modifications (three inspection samples) to verify that the safety functions of safety systems were not affected:

- Temporary Engineering Change Package 030301058-7, "Change Input to 3PV0100B Positioner" (Unit 3)

- Temporary Engineering Change Package 040701007-1, "Conduct Performance Test on Battery 2B009 By Utilizing Battery B00X" (Unit 2)

- Temporary Engineering Change Package 040701007-2, “Conduct Performance Test on Battery 2B010 By Utilizing Battery B00X” (Unit 2)

b. Findings

No findings of significance were identified.

Cornerstone: Emergency Preparedness

1EP2 Alert Notification System Testing (71114.02)

a. Inspection Scope

The inspector discussed with licensee staff the status of offsite siren systems to determine the adequacy of the licensee’s methods for testing the alert and notification system in accordance with 10 CFR Part 50, Appendix E. The licensee’s alert and notification system testing program was compared with criteria in NUREG-0654, “Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants,” Revision 1, with Federal Emergency Management Agency Report REP-10, “Guide for the Evaluation of Alert and Notification Systems for Nuclear Power Plants,” and the licensee’s current Federal Emergency Management Agency approved alert and notification system design report. The inspector also reviewed Procedures SO123-VIII-0.301, “Emergency Telecommunications Testing,” Revision 10, and SO123-VIII-0.302, “Onsite Emergency Siren System Test,” Revision 3.

b. Findings

No findings of significance were identified.

1EP3 Emergency Response Organization Augmentation Testing (71114.03)

a. Inspection Scope

The inspector discussed with licensee staff the status and configuration of primary and backup systems for staffing licensee emergency response facilities in accordance with the licensee emergency plan and the requirements of 10 CFR Part 50 Appendix E. The licensee’s emergency recall system was compared with criteria in NUREG-0654, “Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants,” Revision 1. The inspector also compared the recall system to the requirements of Procedures SO123-VIII-30.7, “Emergency Notifications,” Revision 4, and SO123-VIII-0.201, “Emergency Plan Equipment Surveillance Program,” Revision 13. The inspector also reviewed the results of 19 emergency response organization pager and recall tests conducted February 2003 through March 2004.

b. Findings

No findings of significance were identified.

1EP5 Correction of Emergency Preparedness Weaknesses and Deficiencies (71114.05)

a. Inspection Scope

The inspector reviewed documents related to the licensee's corrective action program, as described in the attachment, to determine the licensee's ability to identify and correct problems in accordance with 10 CFR 50.47(b)(14) and 10 CFR Part 50, Appendix E.

b. Findings

No findings of significance were identified.

1EP6 Drill Evaluation (71114.06)

a. Inspection Scope

The inspectors observed one (one inspection sample) emergency preparedness drill to evaluate the drill conduct and the adequacy of the licensee's performance critique. The inspectors observed one site-wide drill from the simulator, Technical Support Center, and Emergency Operating Facility on June 30, 2004.

b. Findings

No findings of significance were identified.

2. RADIATION SAFETY

Cornerstone: Occupational Radiation Safety

2OS2 ALARA (as Low as is Reasonably Achievable) Planning and Controls (71121.02)

a. Inspection Scope

The inspector assessed licensee performance with respect to maintaining individual and collective radiation exposures ALARA. The inspector used the requirements in 10 CFR Part 20 and the licensee's procedures required by TSs as criteria for determining compliance. The inspector interviewed licensee personnel and reviewed:

- Current 3-year rolling average collective exposure

- Five outage maintenance work activities scheduled during the inspection period and associated work activity exposure estimates which were likely to result in the highest personnel collective exposures
- Site-specific trends in collective exposures, plant historical data, and source-term measurements
- Site-specific ALARA procedures
- ALARA work activity evaluations, exposure estimates, and exposure mitigation requirements
- Interfaces between operations, radiation protection, and maintenance planning
- Integration of ALARA requirements into work procedure and radiation exposure permit documents
- Shielding requests and dose/benefit analyses
- Postjob (work activity) reviews
- Method for adjusting exposure estimates, or replanning work, when unexpected changes in scope or emergent work were encountered
- Exposures of individuals from selected work groups
- Radiation worker and radiation protection technician performance during work activities in radiation areas or high radiation areas
- Declared pregnant workers during the current assessment period, monitoring controls, and the exposure results
- Corrective action documents related to the ALARA program and followup activities, such as initial problem identification, characterization, tracking, and resolution

The inspector completed 8 of the required 15 samples and 6 of the optional samples.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator Verification (71151)

a. Inspection Scope

The inspectors sampled licensee submittals for the five performance indicators listed below for the period October 1, 2003, through June 30, 2004, for Units 2 and 3. The definitions and guidance of Nuclear Energy Institute 99-02, "Regulatory Assessment Indicator Guideline," Revision 2, were used to verify the licensee's basis for reporting each data element in order to verify the accuracy of performance indicator data reported during the assessment period. Licensee performance indicator data were also reviewed against the requirements of Procedures SO23-NI-1, "NRC Performance Indicator Program," Revision 3, and SO23-XV-24, "Quarterly NRC Performance Indicator Process," Revision 2.

Reactor Safety Cornerstone

- Drill and Exercise Performance
- Emergency Response Organization Participation
- Alert and Notification System Reliability
- Shutdown Cooling Unavailability (MS3)
- Auxiliary Feedwater Unavailability (MS4)

The inspectors reviewed 100 percent of drill and exercise scenarios and licensed operator simulator training sessions, notification forms, and attendance and critique records associated with training sessions, drills, and exercises conducted during the verification period. The inspectors reviewed emergency responder drill participation records and rosters. The inspectors reviewed alert and notification system testing procedures, maintenance records, and a 100 percent sample of siren test records. The inspector also interviewed licensee personnel responsible for collecting and evaluating performance indicator data.

b. Findings

No findings of significance were identified.

4OA2 Identification and Resolution of Problems (71152)

1. Maintenance Rule Review

a. Inspection Scope

The inspectors evaluated the use of the corrective action system within the maintenance rule program for issues associated with risk significant systems. The review was accomplished by the examination of a sample of corrective action

documents, maintenance work items, and other documents listed in the attachment. The purpose of the review was to establish that the corrective action program was entered at the appropriate threshold for the purpose of:

- Implementation of the corrective action process when a performance criterion was exceeded
- Correction of performance-related issues or conditions identified during the periodic evaluation
- Correction of generic issues or conditions identified during programmatic assessments, audits, or surveillances.

The purpose of the review was to determine that the identification of problems and implementation of corrective actions were acceptable.

b. Findings

No findings of significance were identified.

2. ALARA Review

a. Inspection Scope

Section 2OS2 evaluated the effectiveness of the licensee's problem identification and resolution processes regarding exposure tracking, higher than planned exposure levels, and radiation worker practices. The inspectors reviewed the corrective action documents listed in the attachment against the licensee’s problem identification and resolution program requirements.

b. Findings

No findings of significance were identified.

3. Emergency Planning Review

a. Inspection Scope

The inspector selected 24 ARs (corrective action program inputs) for detailed review based on their linkage with event classification, notification of offsite authorities, and processes for providing protective action recommendations. The reports were reviewed to ensure that the full extent of the issues were identified, an appropriate evaluation was performed, and appropriate corrective actions were specified and prioritized. The inspector evaluated the ARs against the requirements of Procedures SO123-XV-50,

"Corrective Action Process," Revision 4, SO123-XX-1, "Action Request/Maintenance Order Initiation Process," Revision 15-2, and SO123-XV-50.39, "Cause Evaluation Standards, Methods, and Instructions," Revision 4-1.

b. Findings

No findings of significance were identified.

4. Annual Sample Review

a. Inspection Scope

The inspectors selected AR 040900011 for a detailed review. This AR was written in response to a Unit 3 Loop 1 reactor coolant hot leg instrument failing to stay in calibration.

b. Findings and Observations

No findings of significance were identified. However, the inspectors noted that AR 040900011 had been closed without any corrective actions identified or documented. AR 040900011 indicated that the Unit 3 loop one reactor coolant hot leg instrument failed to stay in calibration after two attempts. The AR had been closed with only the words "This was determined to be a non problem." After interviewing several licensee personnel, the inspectors discovered that the reason the hot leg instrument was not staying in calibration was because a test technician incorrectly attached a test decade box to the instrument during calibration. The licensee discovered and corrected the problem, but did not consider any corrective actions to prevent recurrence. Licensee management indicated that this did not meet expectations and indicated that the AR would be reopened to reference the MO that described the problem and that "Lessons Learned" training would be provided to the maintenance staff on the issue to help prevent recurrence. The inspectors considered the licensee's followup actions appropriate.

5. Quarterly Review of Corrective Action Documents

a. Inspection Scope

The inspectors reviewed a selection of ARs written during this period to determine if: the licensee was entering conditions adverse to quality into the corrective action program at an appropriate threshold; the ARs were appropriately categorized and dispositioned in accordance with the licensee's procedures; and, in the case of significant conditions adverse to quality, the licensee's root cause determination and extent of condition evaluation were accurate and of sufficient depth to prevent recurrence of the condition.

b. Findings

No findings of significance were identified.

4OA3 Event Followup (71153)

1. (Closed) Licensee Event Report (LER) 05000361/2004-001-00: Personnel Error Results in TS Violation During Movement of Irradiated Fuel

   On March 7, 2004, the licensee identified that TS 3.7.14, "Fuel Handling Building Post-Accident Cleanup Filter System [PACU]," was violated during the movement of irradiated fuel. The Train B PACU was inoperable at the time of the fuel movement and the Train A PACU was operating in the parallel mode as opposed to the isolate mode that was required by TS 3.7.14. Fuel movement occurred for approximately 19 hours before the condition was recognized. Fuel movement was immediately suspended and the Train A PACU was placed in the isolate mode. The cause of the event was attributed to operations personnel failing to review the procedure that established the requirements for the movement of irradiated fuel. The procedure contained steps that would have directed the operators to place the Train A PACU in the isolate mode of operation. The inspectors reviewed the LER and no new findings were identified. The inspectors considered this issue to be minor because:

   - The fuel handling accident analysis does not credit the PACU operation for dose mitigation.
   - One train of PACU was operating to mitigate a fuel handling accident.
   - One FHIS channel was operable and able to isolate the FHB if a fuel handling accident occurred.
   - This event was not caused by nor did it result in a safety system functional failure (SSFF). This event did not impact the ability to shut down the unit or mitigate the consequences of an accident.

   This finding constitutes a violation of minor significance that is not subject to enforcement action in accordance with Section IV of the NRC's Enforcement Policy. The licensee also documented the issue in AR 040300624.

2. (Closed) LER 05000361;362/2004-003-00: Momentary Loss of Operability of the Offsite Power Grid due to 230 kV Transmission Line Fault in Arizona

   On June 14, 2004, offsite power frequency dropped below the TS minimum of 59.7 Hz for approximately 2 minutes due to a grid disturbance that occurred in Arizona. The lowest frequency recorded during the dip in frequency was 59.5 Hz. The inspectors considered operator response to the event appropriate, and the momentary dip in frequency did not disturb plant operation. This LER is closed.

4OA5 Other

1. Temporary Instruction (TI) 2515/154, "Spent Fuel Material Control and Accounting at Nuclear Power Plants"

   a. Inspection Scope

   The inspectors completed TI 2515/154, "Spent Fuel Material Control and Accounting at Nuclear Power Plants."

   b. Findings

   No findings of significance were identified.

2. Third-Party Reviews

   The inspectors reviewed a third-party assessment dated July 15, 2004. The biennial assessment was performed from June 7-18, 2004. The inspectors noted that the assessment was consistent with performance observed by the NRC staff.

4OA6 Meetings, Including Exit

On July 1, July 30, August 5, and September 24, 2004, the Resident and Regional office inspectors presented the inspection results to Mr. J. Wambold, Mr. D. Nunn, and others who acknowledged the findings. The inspectors subsequently asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

4OA7 Licensee-Identified Violations

The following violations of very low significance (Green) were identified by the licensee and are violations of NRC requirements which meet the criteria of Section VI of the NRC Enforcement Policy, NUREG-1600, for being dispositioned as noncited violations (NCV).

- 10 CFR 50.54(q) requires, in part, that a licensee follow and maintain in effect emergency plans which meet the standards in §50.47(b) and the requirements in Appendix E. 10 CFR Part 50, Appendix E, IV.A.2(b), requires that the licensee's emergency plan provide a detailed discussion of plant staff emergency assignments and the duties of individuals assigned to the licensee's emergency organization. Contrary to this, the licensee's emergency plan did not describe the duties and responsibilities of some emergency response organization positions. Specifically, the duties and responsibilities of 5 minimum staff positions and 51 additional responders were not described in the licensee's emergency plan. This was identified in the

licensee's corrective action program in ARs 031200669-18 and 031200669-19. This finding is of very low safety significance because it did not represent functional failures of planning standards 10 CFR 50.47(b)(1) or 50.47(b)(2).

- 10 CFR 50.47(b)(14) requires that deficiencies identified as a result of exercises or drills are corrected. 10 CFR 50.54(q) requires, in part, that the licensee follow and maintain in effect emergency plans which meet the standards in §50.47(b) and the requirements in Appendix E. 10 CFR Part 50, Appendix E, IV.F.2(g), requires that all exercises and drills provide for formal critiques and that any identified weaknesses or deficiencies be corrected. Contrary to this, the licensee did not enter all identified weaknesses and deficiencies into its corrective action program. This was identified in the licensee's corrective action program as Apparent Cause Evaluation 040600717. This finding is of very low safety significance because it did not represent a functional failure of planning standard 10 CFR 50.47(b)(14).

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel

R. Allen, Supervisor, Reliability Engineering
C. Anderson, Manager, Site Emergency Preparedness
D. Axline, Licensing Engineer, Nuclear Regulatory Affairs
D. Brieg, Manager, Maintenance Engineering
G. Cook, Supervisor, Compliance
M. Cooper, Manager, Plant Operations
B. Culverhouse, Supervisor, Offsite Emergency Planning
M. Goettel, Manager, Business Planning and Financial Services
M. Love, Manager, Maintenance
J. Madigan, Manager, Health Physics
C. McAndrews, Manager, Nuclear Oversight and Assessment
M. McBrearty, Engineer, Nuclear Regulatory Assurance
D. Nunn, Vice President, Engineering and Technical Services
N. Quigley, Manager, Mechanical/Nuclear Maintenance Engineering
J. Ramsdell, Maintenance Rule Coordinator
D. Richards, Supervisor, Onsite Emergency Planning
A. Scherer, Manager, Nuclear Regulatory Affairs
M. Short, Manager, Systems Engineering
T. Vogt, Manager, Operations
R. Waldo, Station Manager
J. Wambold, Vice President, Nuclear Generation
C. Williams, Supervisor, Compliance
T. Yackle, Manager, Design Engineering

NRC Personnel

Christian Araguas, Nuclear Safety Professional Development Program Participant

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened and Closed

05000361/2004004-01	NCV	Failure to provide adequate instructions for EDG maintenance (Section 1R15)

Closed

05000361/2004-001-00	LER	Personnel Error Results in Technical Specification Violation During Movement of Irradiated Fuel

05000361;362/2004-003-00	LER	Momentary Loss of Operability of the Offsite Power Grid due to 230 kV Transmission Line Fault in Arizona

Discussed

None

LIST OF DOCUMENTS REVIEWED

In addition to the documents listed in the inspection report, the following documents were selected and reviewed by the inspectors to accomplish the objectives and scope of the inspection and to support any findings:

Section 1R04: Equipment Alignments

Procedure SO23-2-12.1, "Component Cooling Water System Alignments," Revision 6
Procedure SO23-2-17, "Component Cooling Water System Operation," Revision 18
Operations Division Manual 5, "Operator Rounds," Revision 0
Procedure SO23-3-3.23, "Diesel Generator Monthly and Semi-annual Testing," Revision 23
Piping and Instrumentation Diagram 40127ASO3, "Component Cooling Water System No. 1203," Revision 27

Section 1R12: Maintenance Implementation

Action Requests

010301123, 020101538, 020800755, 021100192, 021201039, 030202033, 030401327, 030801357, 031101252, 031101253, and 040101394

Maintenance Rule Function Reports

125/250V DC
4160V AC Power
Component Cooling Water
Containment Isolation
Radiation Monitoring - Area, Process, and Effluent

Procedures

SO123-CA-1, "Corrective Action Program," Revision 3
SO123-XV-5.3, "Maintenance Rule Program," Revision 6
SO123-XV-50, "Corrective Action Process," Revision 4

Miscellaneous Documents

Independent Assessment of Maintenance Rule Implementation, performed April 19-30, 2004

Maintenance Rule Evaluation (MRE) Guideline, Revision 5

Maintenance Rule Expert Panel Meeting Minutes from March 21, 2002, through May 20, 2004

SONGS Maintenance Rule Program (a)(3) Periodic Assessment (3rd Quarter 2001 through 2nd Quarter 2003), dated October 31, 2003

SONGS System Health Reports (Quarter 2004-1) for DC Power Systems, 4 KV System, Containment Leak Rate Testing Program, and Component Cooling System

Section 2OS2: ALARA Planning and Controls (71121.02)

Corrective Action Documents and Requests
030201607, 031001084, 030901392, 040100520, 04011521, 040101248, 040101448, 040101751, 040201832, 040500617, 040300392, 040300629, 04021480, 040300629, 040401695, 040401811, 040500671, and 040501354

Audits and Surveillances

Division Self-Assessment Report for the Fourth Quarter 2003
Unit 2 Cycle 13 ALARA In-Progress Reviews

1EP2 Alert Notification System Testing

Procedures:
SO123-XVIII-10, "Siren - Community Alert Siren System - System Description and Operational Guide," Revision 5

SO123-XVIII-10.1, "Siren - Community Alert Siren System - Biweekly Silent Test," Revision 4-2

SO123-XVIII-10.3, "Siren - Community Alert Siren System - Quarterly Growl Test," Revision 5-3

SO123-XVIII-10.4, "Siren - Community Alert Siren System Response to a Report of an Inadvertent Siren Activation," Revision 3

SO123-XVIII-10.5, "Siren - Community Alert Siren System Annual Activation Test Procedures," Revision 4-1

Section 1EP5: Correction of Emergency Preparedness Weaknesses and Deficiencies

Audit SCES-013-03, Emergency Preparedness, November 27, 2001, through November 26, 2003

Surveillance SOS-064-02, "ERO Assignments," October 8, 2002

Surveillance SOS-073-02, "Emergency Planning Drills," September 25, 2002

Surveillance SOS-074-62, “EOF Emergency Facility Systems,” November 29, 2002

Surveillance SOS-077-01, “Emergency Plan and ODCM Controls,” July 24, 2001

SEP Division Quarterly Self Assessments (8) for the period Second Quarter 2002 through First Quarter 2004

EP NRC Readiness Review, AR 040600717-10

EP Directed Self Assessment, December 2003 through February 2004

Corrective Action Reports:

021000183	030102372	030700521	030900659	031001265
021000230	030400904	030800139	030901063	040400027
021100577	030501440	030801075	030901063	040400160
021200220	030600920	030900463	031001051	040500381
030100232				

Drill Reports:

2003 Environmental Monitoring Drill Critique Report
Critique Report 0203-0205
Critique Report 0206
Critique Report 0302-0305, Revision 1
Critique Report 0306
Critique Report 0307
Critique Report 0312

Procedures:

SO123-CA-1, “Corrective Action Program,” Revision 3-1

SO123-NP-1, “Offsite Emergency Planning Responsibilities and Offsite Interfaces,” Revision 5-3

SO123-XII-18.1, “Audit Program,” Revisions 8 and 8-2

SO123-SA-1, “Self Assessment Program,” Revision 2

SO123-VIII-1, “Recognition and Classification of Emergencies,” Revision 21

SO123-VIII-10.3, “Protective Action Recommendations,” Revision 8

SO123-VIII-30.7, “Emergency Notifications,” Revision 4

SO123-VIII-0.100, “Maintenance and Control of Emergency Planning Documents,” Revision 7

SO123-VIII-0.200, “Emergency Plan Drills and Exercises,” Revision 8

LIST OF ACRONYMS

ALARA	as low as is reasonably achievable
AR	Action Request
CFR	*Code of Federal Regulations*
EDG	emergency diesel generator
FEMA	Federal Emergency Management Agency
LER	licensee event report
MO	maintenance order
NCV	noncited violation
PACU	postaccident cleanup filter system
TI	temporary instruction
TS	Technical Specification