U.S. NUCLEAR REGULATORY COMMISSION

REGION V

Report Nos.	50-206/93-02, 50-361/93-02, 50-362/93-02
Docket Nos.	50-206, 50-361, 50-362
License Nos.	DPR-13, NPF-10, NPF-15
Licensee:	Southern California Edison Company Irvine Operations Center 23 Parker Street Irvine, California 92718
Facility Name:	San Onofre Units 1, 2 and 3
Inspection at:	San Onofre, San Clemente, California
Inspection conducted:	January 9 through February 16, 1993
Inspectors:	C. W. Caldwell, Senior Resident Inspector D. L. Solorio, Resident Inspector J. J. Russell, Operator Licensing Examiner
Approved By:	H. J. Wong, Chief Reactor Projects Section II

3/19/93
Date Signed

Inspection Summary

Inspection on January 9 through February 16, 1993 (Report Nos. 50-206/93-02, 50-361/93-02, 50-362/93-02)

Areas Inspected: Routine resident inspection of Units 1, 2 and 3 Operations Program including the following areas: operational safety verification, radiological protection, security, evaluation of plant trips and events, monthly maintenance activities, refueling activities, independent inspection, licensee event report review, and followup of previously identified items. Inspection procedures 37700, 60710, 60705, 62703, 71707, 71710, 72700, 90712, 92700, and 93702 were covered.

Safety Issues Management System (SIMS) Items: None

Results:

General Conclusions and Specific Findings:

Strengths

On January 16, 1993, Unit 3 tripped on a loss of load signal subsequent to a main generator ground fault due to rain water seepage into the current transformer enclosure located underneath the main generator. The inspector considered that licensee personnel adequately responded to the event (Paragraph 4).

The spent fuel transshipment was completed on February 13, 1993, after movement of 47 fuel assemblies from Unit 1 to Unit 3. The inspector noted that the fuel movement was conducted in a safe and deliberate manner. However, one incident did occur when the cordera cover surrounding the cask was blown off by high winds and the surface of the fuel cask (which was contaminated) was exposed to heavy rains (Paragraph 7).

Weaknesses

A number of instances of improper configuration control were identified by the licensee and the NRC during this period. Examples included improperly removed lagging on a main steam safety valve, misaligned root valves for various safety-related plant instruments, and inaccurate drawings for safety-related systems (Paragraph 8.a). Examples also included housekeeping problems that added potential fire or seismic hazards to safety-related equipment such as improperly stored equipment on top of the cement slab covering the Unit 3 diesel generator (DG) fuel oil storage vault in the vicinity of the fuel oil tank vents and improperly controlled flammable materials in the Units 2 and 3 DG rooms (Paragraph 3.b). While the evaluations of these conditions has not been completed, the inspector was concerned that personnel did not appear to be sensitive to the importance of maintaining proper configuration of safety-related systems or the necessity of proper housekeeping.

During simulator observations, the inspector noted several instances in which communications could have been better. In particular, certain instances were observed in which repeat-backs were not observed or that erroneous information was not always corrected. The inspector also noted that the facility evaluators did not identify the communications weaknesses observed by the inspector (Paragraph 3.a).

The inspector observed two instances in which foreign material exclusion (FME) barriers were inappropriately used. The inspector was concerned that improper use of FME barriers such as the ones observed could result in the FME program losing its effectiveness (Paragraph 8.b).

Significant Safety Matters:

Summary of Violations:

None

Open Items Summary:

During this report period, four new followup items were opened and three were closed.

DETAILS

1. Persons Contacted

Southern California Edison Company

H. Ray, Senior Vice President, Nuclear
H. Morgan, Vice President and Site Manager
*R. Krieger, Station Manager
*J. Reilly, Manager, Nuclear Engineering & Construction
*B. Katz, Manager, Nuclear Oversight
*R. Rosenblum, Manager, Nuclear Regulatory Affairs
*W. Marsh, Assistant Manager, Nuclear Regulatory Affairs
K. Slagle, Deputy Station Manager
*R. Waldo, Operations Manager
*L. Cash, Maintenance Manager
*D. Breig, Manager, Station Technical
M. Short, Manager, Site Technical Services
M. Wharton, Manager, Nuclear Design Engineering
*P. Knapp, Manager, Health Physics
*J. Fee, Assistant Manager, Health Physics
*W. Zintl, Manager, Emergency Preparedness
D. Herbst, Manager, Quality Assurance
C. Chiu, Manager, Quality Engineering
J. Schramm, Plant Superintendent, Unit 1
V. Fisher, Plant Superintendent, Units 2/3
*G. Hammond, Supervisor, Onsite Nuclear Licensing
*J. Jamerson, Lead Engineer, Onsite Nuclear Licensing
*M. Farr, Engineer, Onsite Nuclear Licensing
J. Reeder, Manager, Nuclear Training
*R. Sandstrom, Operations Training Supervisor
*A. Thiel, Manager, Electrical Systems Engineering
H. Newton, Manager, Site Support Services
*C. Couser, Supervisor, Fire Protection
*O. Flores, Supervisor, Chemical Engineering
*M. Herschthal, Manager, Nuclear Systems Engineering
*J. Hirsch, Supervisor, Power Generation
*M. Scott, Chemistry Engineer
*J. Noyes, Chemistry Engineer

San Diego Gas and Electric Company

*R. Erickson, Site Representative

*Denotes those attending the exit meeting on February 16, 1993.

The inspectors also contacted other licensee employees during the course of the inspection, including operations shift superintendents, control room supervisors, control room operators, QA and QC engineers, compliance engineers, maintenance craftsmen, and health physics engineers and technicians.

2. Plant Status

Unit 1

The Unit remained in Mode 5 during the period.

Unit 2

The Unit remained at power during the period.

Unit 3

On January 16, 1993, the Unit 3 reactor tripped on a loss of load signal subsequent to a ground fault on the main turbine. The reactor trip was uncomplicated and the Unit was restarted on January 19, 1993. Unit 3 operated at power for the remainder of the period.

3. Operational Safety Verification (71707)

The inspectors performed several plant tours and verified the operability of selected emergency systems, reviewed the tag out log and verified proper return to service of affected components. Particular attention was given to housekeeping, examination for potential fire hazards, fluid leaks, excessive vibration, and verification that maintenance requests had been initiated for equipment in need of maintenance. The inspectors also observed selected activities by licensee health physics and security personnel to confirm proper implementation of and conformance with facility policies and procedures in these areas. A number of discrepancies were noted during plant tours. These were discussed with the cognizant engineer and/or shift superintendents for resolution. The more significant findings are discussed below.

a. Simulator Observations

The inspector observed the simulator scenario portion of the facility annual requalification operating test conducted on February 2, 1993. The inspector observed the actions of the operating crew and the facility evaluators during the two scenarios conducted. The scenarios were a steam generator tube rupture and a main steam line rupture inside containment. The inspector noted two areas of concern as follows:

- In certain instances, communications were not in accordance with procedure SO23-0-44, "Professional Operator Development and Evaluation Program." Attachment 4 to this procedure specified a repeat back of information for common understanding by the operators. In certain instances, particularly between the Control Room Supervisor (CRS) and the Control Operators (COs), repeat-backs were not observed. In other instances, particular information involving component identification was not verbalized when action was required. In addition,

erroneous information was not always clearly corrected. Although there were a number of instances in which communications were weak, the inspector noted that no mis-operation of the controls of the simulator occurred. The inspector also noted that the facility evaluators did not identify the communications weaknesses discussed above and graded the crew relatively high in this area.

The inspector discussed these observations with facility training personnel, who acknowledged the comments.

- The inspector observed that the operators retained their original shift assignments for both evaluated scenarios. During past facility annual evaluations, the operators rotated position between scenarios. That allowed the facility evaluators to observe a comprehensive sample of required abilities dependent upon the operators license type (Senior Reactor Operator or Reactor Operator). In certain instances facility administrative controls would prevent an operator from standing a different control room watch, whereas in other instances there were no such controls. Thus, the inspector considered that the annual examination might not be as comprehensive as it had been in years past. In response to the inspector's concern, the licensee replied that they had changed their policy on operator rotation as a result of NRC guidance promulgated in Revision 7 to NUREG-1021, "Operator Licensing Examiner Standards." Revision 7 to the NUREG did not require rotation of operators. The inspector was concerned that the Examiner Standard was intended to be used by NRC personnel and not as guidance for licensee examinations.

  The inspector discussed this concern with the NRC's Operator Licensing Branch (OLB) for resolution. The results of the OLB evaluation will be reviewed by the inspector and discussed with the licensee as inspector followup item (50-361/93-02-01).

Other than the areas of concern discussed above, the operating test observed was performed satisfactorily.

b. Housekeeping Concerns

During tours of the facility, the inspector observed a number of housekeeping problems that appeared to cause potential fire or seismic hazards to safety-related equipment. The most significant observations were as follows:

Potential Seismic Concerns

1) Control Of Carts In The Unit 2 And 3 Spent Fuel Pool Buildings

On February 9, 1993, the inspector walked down the Unit 2 spent

fuel pool (SFP) room and found that one of five carts was not seismically secured. The inspector contacted the onshift Shift Supervisor (SS) who had the cart secured. Upon learning of the inspector's observation, Health Physics (HP) supervision initiated a walkdown of the Unit 3 SFP room and identified four additional carts that were not seismically secured. The inspector later walked down the Unit 3 SFP room to determine what potential impact unsecured carts might have had to safety-related equipment and considered that the potential threat was minimal. The carts were some distance from safety significant items or obstacles existed which would have prevented travel of the carts into safety significant items.

The inspector noted that procedure SO123-I-1.20, Revision 2, "Seismic Controls - Seismic Controls During Maintenance, Testing, and Inspections," Section 6.5, specified that movable equipment be secured or anchored. The inspector considered that the licensee adequately resolved the deficiencies observed. The inspector will continue to monitor the licensee's performance in this area as part of routine inspection activities.

2) Various Items Stored On Top Of The Unit 3 Diesel Generator Fuel Oil Storage Vault

On February 12, 1993, the inspector observed that a number of cables, welding machines, ladders, and plastic bags were spread across the cement slab covering the Unit 3 DG fuel oil storage vault (many within just a few feet of the fuel oil tank vents). While the material did not appear to the cognizant engineer and inspector to pose a threat to the vents during a seismic event, the inspector was concerned that personnel did not consider the area to be deserving of any special attention. The inspector discussed this issue with the cognizant engineer and the Maintenance Manager for resolution.

The licensee reviewed the inspector's concern and noted that the material was controlled by the housekeeping program and the area had been accepted by the housekeeping program. However, housekeeping program acceptance of this area as a storage facility did not appear to be appropriate. The licensee did not believe that any items were authorized for permanent storage on top of the fuel oil vault. In addition, the area had been painted with white stripes, apparently to indicate that the area was to be kept clear of materials. However, the paint had faded and was hard to distinguish. Discussions with the responsible engineer indicated that the licensee planned to repaint and stencil the area to prevent the area from being used for storage.

Potential Fire Hazards

1) Rags, Trash, And Oil Stored In The Units 2 And 3 Diesel Generator (DG) Rooms

On February 9, 1993 during a walkdown of the Unit 2 DG rooms the inspector observed the following potential fire hazards:

- In the fan room above Unit 2 DG 2G003, a garbage bag full of rags was found adjacent to the 16 Cylinder Engine Radiator Fan, 2E-549.

- Under Unit 2 DG 2G003 generator, sandpaper and tie raps were found.

The inspector contacted the onshift Operations Shift Supervisor (SS) who had these items removed. The SS then initiated walkdowns of the Units 2 and 3 DG rooms in response to the above observations. During the walkdown of the Unit 3 DG room, a plastic bottle of oil (250 ml) was found under one of the DG air receivers.

Additionally, the SS requested the Site Housekeeping Organization to perform walkdowns of the same DG rooms at which time the following items were identified:

- Rags were found between unistrut supports and I-beams in Unit 3 DG room 3G003.

- In the fan room above Unit 3 DG 3G003, near one of the DG air receivers, rags were found stuffed in a public announcement (PA) speaker.

2) Flammables And Consumables Found In The Unit 2 Spent Fuel Pool Building

On February 9, 1993, while touring the Unit 2 spent fuel pool building, the inspector found several cans of flammables and consumables stored in a cabinet. However, they were not authorized to be stored in the cabinet nor were they labeled in accordance with procedure SO123-XV-42, "Control Of Chemicals And Consumable Materials." The inspector discussed these findings with the licensee for resolution. Later that day, the licensee's Maintenance Refueling group initiated additional inspections of cabinets in the Unit 3 spent fuel pool building and found several tubes of caulk which were not labeled in accordance with procedure SO123-XV-42.

The inspector found five cans in two locations which were not labeled in accordance with procedure SO123-XV-42. Included in the five, was one can of spray paint which was labeled

flammable. The inspector reviewed procedure SO123-XV-4.13, "Weekly Inspection For The Control Of Combustibles And Transient Fire Loads," and noted that the procedure allowed up to six cans.

While the above deficiencies appeared to be relatively small in number and each individual deficiency seemed to be of minor safety significance, the inspector concluded that there appeared to be indications that this area could be a larger problem in the future. The inspector was concerned that without additional licensee management attention the trend could continue or increase and lead to an increase in the number or significance of housekeeping deficiencies.

As immediate corrective actions for the discrepancies identified, the licensee conducted preshift briefings to stress the importance of performing detailed tours of safety-related areas, including identification of potential fire and seismic hazards. Operations management stated that it was their expectation that these types of deficiencies should be identified and removed by operators on their rounds.

The licensee indicated that the majority of the items appeared to have been in place for a long period of time. The inspector acknowledged that a few of the items found were in "out of the way" locations such that they might not have been easily identified by operators during their rounds. The inspector also noted that Site Housekeeping does weekly inspections and has the responsibility for removing items such as the ones discussed above. However, it appeared that these items had been missed during those weekly inspections. These concerns were discussed with the licensee during the exit meeting on February 16, 1993. Licensee management indicated that they would further evaluate the problem and develop an approach to resolve these deficiencies. The inspector will followup on the licensee's evaluation of this concern as unresolved item (361/93-02-02) and will continue to evaluate the licensee's efforts to properly control materials as part of the routine inspection efforts.

No violations or deviations were identified.

4. Evaluation of Plant Trips and Events (93702)

On January 16, 1993, Unit 3 tripped on a loss of load signal subsequent to a main generator ground fault. At the time, the local area was experiencing heavy rains and a subsequent investigation revealed that rain water had seeped into the current transformer enclosure located underneath the main generator. The licensee found several leaking seams on the enclosure and resealed them. The Unit trip was uncomplicated; however, the licensee experienced problems with the reactor trip override (RTO) feature which allowed steam generator levels to deviate from

expected values shortly after the trip. The licensee corrected the problems and restarted the Unit on January 19, 1993. The inspector considered that the licensee adequately responded to the event.

No violations or deviations were identified.

5. Monthly Maintenance Activities (62703)

During this report period, the inspectors observed or conducted inspection of the following maintenance activities:

a. Observation of Routine Maintenance Activities (Unit 2)

MO93011785000 "Provide Temperature Monitoring For Unit 2 Spent Fuel Pool During Replacement Of Spent Fuel Pool Heat Exchanger Outlet Valve 2HCV7747."

MO92051403000 "Measure Chilled Water Coil Flow, Pressure And Temperatures To Support Emerging HVAC (heating, ventilating, and air conditioning) Performance Monitoring Program."

b. Observation of Routine Maintenance Activities (Unit 3)

MO93012128000 "Set Up And Functionally Test RTO (Reactor Trip Override) On Both Feed Regulating Systems"

MO93011869000 "Connect Battery Bank S31806EB008 To Battery Charger S31806EB002"

No violations or deviations were identified.

6. Engineered Safety Feature Walkdown (71710)

The inspector performed a walkdown of selected portions of the Units 2 and 3 emergency chilled water system and the Unit 2 auxiliary feedwater system (AFW). Piping and instrument diagrams (P&IDs) 40179A, 40179B, 40179C, 40179D "Auxiliary Building Emergency Chilled Water System Loop A," Procedure SO23-3-3.47, "Emergency Chilled Water System Monthly Test," SO23-2-4, "Auxiliary Feedwater Flowpath Alignment - Unit 2," and P&ID 40160A, "P&I Diagram - Auxiliary Feedwater System," were used.

No discrepancies were noted with the AFW system. However, a number of discrepancies were identified in the emergency chilled water system, and were discussed with the cognizant engineer for resolution. The more significant findings are discussed in Paragraph 8.c. of this report.

The inspector also performed a walkdown of various portions of the auxiliary building normal heating, ventilating, and air conditioning (HVAC) system. Procedure SO23-1-3, "Auxiliary Building Normal Heating, Ventilation And Air Conditioning (HVAC) Chilled Water System Operation,"

and P&ID 40195A, "P&I Diagram - Auxiliary Building Normal Chilled Water System," were used. The inspector noted that the system alignment procedure and the P&ID show the root valves associated with suction pressure gauges for pumps P-158 and P-159 being labeled reversed from their plant configuration. These pressure instruments provide alarms and control functions for the normal chilled water pumps. Thus, isolating the wrong pressure instruments could cause mis-operation of the system. This discrepancy was discussed with the cognizant engineer for resolution.

No violations or deviations were identified.

7. Plant Modification and Refueling Activities (37700, 60705, 60710, 72700)

The inspector observed activities associated with the transshipment of fuel from Unit 1 to the Unit 3 spent fuel pool. The transshipment was completed on February 13, 1993, after movement of 47 fuel assemblies. The inspector noted that the fuel movement was conducted in a safe and professional manner. However, one incident did occur. On February 7, the sixth shipment was being transferred from Unit 1 when activities had to be suspended due to heavy winds and rain. A contamination control problem occurred when the cordera cover for the fuel cask came loose as it was being moved from the south end of the turbine deck back to the cask wash area. The cover was blown around and the surface of the fuel cask (which was contaminated) was exposed to the rain.

Health Physics (HP) personnel isolated the area and performed contamination surveys to determine the extent of the contamination. HP personnel determined that the contamination was limited to the turbine deck outside of the Unit 1 fuel building and to the turbine gantry crane. The areas affected were subsequently decontaminated. The inspector noted that the licensee's QA organization was investigating the incident to determine if procedural controls were followed, since the procedure, SO123-I-3.5, "Transshipment Of Spent Fuel Using The IF-300 Cask," included precautions concerning activities during inclement weather. The inspector will review the licensee's evaluation as part of the routine inspection program.

No violations or deviations were identified.

8. Independent Inspection (37700, 71710)

a. Configuration Control

Several problems involving improper configuration control were identified by the licensee and by the NRC during this period. The discrepancies noted were as follows:

1) Lagging Removed From A Main Steam Isolation Valve

On February 8, 1992, Station Technical personnel identified

that the lagging for Unit 2 main steam safety valve (MSSV) 2PSV8411 had been removed. With the lagging removed, the setpoint was unknown and the valve was inoperable. For followup action, the lagging was replaced and nonconformance report (NCR) 93020012 was issued. The valve was declared operable a short time later. However, the lagging had apparently been removed by Maintenance personnel four days prior. The licensee was performing a root cause assessment and preparing a licensee event report (LER) concerning this discrepancy.

Further evaluation of this event will be performed by the inspector when the LER and root cause are issued. However, the inspector was concerned that work activities on this valve were not adequate to ensure that configuration control was maintained, and that it took approximately four days to identify the discrepancy.

2) Misaligned Root Valves For Various Plant Instruments

On February 1, 1993, the licensee found the pressure instrument root valves open for both containment spray pumps in Unit 3. This was in conflict with their required position. The licensee closed the valves and then performed a walkdown of all similar root valves in both Units 2 and 3. During the walkdowns, a number of other valves were found open, including instrument root valves for a high pressure safety injection pump in Unit 2 and eight root valves for the boric acid makeup systems in both units. The main issue concerning the valve misalignment was that the tubing downstream of these root valves was not seismically qualified. The licensee restored the valves to the intended closed position. As of the end of this inspection period, the licensee was unable to determine how the valves became misaligned, but stated that a root cause assessment was ongoing.

Further evaluation of this event will be performed by the inspector when the root cause assessment is completed. However, the inspector was concerned that these valves were manipulated outside of program controls and that the condition could have existed for a relatively long period of time.

3) Inaccurate Drawings For The Units 2 And 3 Normal And Emergency Chilled Water System

A number of errors were identified by the inspector on P&IDs 41097A and 40197B, "Auxiliary Building Emergency Chilled Water System Loop A," such as a temperature instrument missing, root valves and temperature instruments reversed from their installed configuration, and drain valves located in places other than shown on the drawing. In addition, a significant

amount of corrosion was found on the fasteners for the flange connections on the Unit 3 fuel handling building pump room emergency chiller.

The most significant error was a temperature instrument (TI), 2TI987D, that was moved on the drawing during the most recent drawing change, DCN-3, in October 1992. The drawing change resulted from a system walkdown in April 1992, to support a system hydrotest. A number of changes were recommended for the drawing and were verified by a second individual. A site problem report (SPR) was generated to initiate the drawing change. However, the verifier incorrectly identified that the TI was in the wrong place and modified the SPR to get it relocated on the drawing.

The inspector had the following concerns about the drawing errors for the emergency chilled water system:

- The drawing verifier introduced an error into the existing drawing.

- There was no second checker for the verifier to identify that an error was made. As the process is defined, a second checker verifies the discrepancies identified by the original individual. However, for this discrepancy, the verifier was the original individual and no one was required to second check the verifier's issue. Discussions with the licensee indicated that if a verifier identified a complex issue, a new verifier would be assigned. However, the inspector noted that it was not defined how this would take place.

- The inspector noted that the licensee does not have a program to routinely perform as-built verifications of drawings. When discrepancies are identified, they are treated individually through the SPR process. The inspector noted that major safety system drawings (e.g., safety injection systems) appeared to accurately reflect the as-built plant. However, the less significant safety systems, such as the emergency chilled water system, that are infrequently operated, may be subject to errors since they are not routinely reviewed.

- During a review of the SPR program, the inspector noted that the backlog of SPRs appeared to be growing.

The inspector discussed this issue with licensee management who indicated that they would evaluate the concern. The inspector considered that the significance of the drawing errors for the emergency chilled water system were relatively minor. However, the inspector considered that these errors could cause

confusion and potentially lead to mis-operation of the system.

4) Inaccurate Drawings For The Unit 2 Salt Water Cooling System

On December 30, 1992, prior to an inservice test (IST) on Unit 2, Salt Water Cooling (SWC) pump 2P112 seal water supply piping valves, the Unit Control Room Supervisor (CRS) discussed with the inspector drawing discrepancies on P&ID, 40126A, "P&I Diagram - Component Cooling Water System (Salt Water Pumps)," Revision 13. In particular, the P&ID showed wrong valve numbers for the seal water supply inlet check valve 048, and ball valve 032 for SWC pump 2P113B. The drawing deficiencies were determined to be associated with the valves as labeled on the drawing and not on plant equipment tags. The CRS indicated that the previous revision of the drawing, Revision 12, was correct and that somehow the errors were introduced in Revision 13. The CRS also indicated that a Site Problem Report (SPR) would be initiated to correct the drawing discrepancy.

On February 10, 1993, after noticing that the control room drawing had not been changed, the inspector contacted the SPR coordinator to determine the status of the drawing changes for 40126A, Revision 13. The coordinator indicated that he had not received a request to change Revision 13 to P&ID 40126A.

Upon being questioned by the inspector, the SPR coordinator contacted the responsible group in the Nuclear Design Organization (NEDO) for implementing changes to P&IDs to ascertain the root cause for the drawing error. The preliminary root cause was determined to be a combination of previously unrecognized limitations with the drawing software and human error in preparing the drawing. Apparently, a recent design change to the seal supply piping contributed to the errors when sections of the drawing were copied over to other sections and valve numbers were not changed. As a result, the manager of NEDO requested a division investigation to determine improvements to the computer software. The inspector noted, that in addition to the individual responsible for making the drawing changes, that a second verification of the drawing changes also failed to identify the errors.

Based on this recent discovery of previously unrecognized drawing software limitations, the inspector considered that there may be other P&IDs with similar deficiencies. In addition, as was previously discussed, the licensee has no formal programs to determine if drawings are becoming deficient over time.

5) Red Tag Inadvertently Left On Breaker For Unit 2 Containment Isolation Valve

On February 3, 1993, while touring the Unit 2 train B emergency switchgear room, the inspector noted that the 480V feeder breaker, 2BJ38, for emergency chiller ME400 component cooling water outlet valve, 2HV6369, was being controlled under two clearances, a yellow and white "O-23" tag in accordance with procedure SO123-O-23, "Abnormal Alignments," and a red clearance tag for maintenance that had been hung on the breaker cubicle.

The inspector questioned a CO as to why both tags were on the breaker cubicle. The CO told the inspector that the work authorization record (WAR) had been closed on December 2, 1992. Closure of the WAR required the red tag be removed and the CO could not give an explanation as to why the tag was still on the breaker. The WAR was used to administratively control the work on 2BJ38, in accordance with SO123-O-21, "Equipment Status Control."

The inspector reviewed procedure SO123-O-21, and noted that the procedure requires the removal of all tags as part of closing out WARs for system/component maintenance. The inspector also noted that if an abnormal alignment was written in accordance with procedure SO123-O-23, procedure SO123-O-21 required that operators pick up all tags and align the system in the sequence described by the alignment page of the WAR. The inspector reviewed the WAR and noted that an operator had signed for the removal of the red tag.

The inspector noted that Table 'D' of Plant Technical Specification (TS) 3.6.3 "Containment Isolation Valves," was applicable to valve 2HV6369. However, Table 'D' only required that the valve be secured in its emergency safety feature actuation system (ESFAS) actuated position when the valve is inoperable. It did not address inoperability with respect to its containment isolation function. The containment isolation function is specified in 10 CFR Part 50, Appendix A, "General Design Criteria for Nuclear Power Plants."

On February 22, 1993, a discussion was held between the Office of Nuclear Reactor Regulation (NRR) and SCE to discuss whether there should be a containment isolation function requirement for all Table 'D' valves (including 2HV6369), since the existing TS did not appear to be consistent with the requirements of 10 CFR Part 50, Appendix A.

The inspector considered that the configuration control issues of items 8.a(1) - (5) represented weaknesses in the programs to ensure that actual plant equipment configuration was correctly represented

in plant drawings, and was maintained and clearly understood by plant personnel. The licensee's evaluation of these occurrences and corrective actions to assure that programs are effective will reviewed further, inspector followup item (361/93-02-03).

b. Foreign Material Exclusion

The inspector observed two instances where FME areas were improperly posted. One FME area consisted of numerous barrels marked as containing oil products located near the intake structure for Units 2 and 3. The other area consisted of a large, portable tool box labeled as "Units 2/3 Diesel Box." Both areas were outside of buildings and exposed to the environment.

Procedure SO123-I-1.18 defined four options for establishing and maintaining FME areas. This procedure also established methods to temporarily close an FME area. The inspector reviewed the procedure and concluded that these areas were improperly posted as an FME area.

The inspector related the above concerns to appropriate licensee personnel who had the FME postings removed from both areas. The inspector was concerned that improper use of FME barriers such as the ones discussed above could result in the FME program losing its effectiveness.

c. Controls For Jumpers And Lifted Leads

Unit 3 valve 3HV6371 is the motor operated isolation valve for the component cooling water (CCW) system return from containment emergency cooler E399. Due to stroking problems with this valve, power was removed from the motor operator and the valve was blocked in the open position to facilitate repairs. This was in accordance with Technical Specifications requirements. The inspector observed that a jumper was installed on motor control center 3BE48 on January 25, 1993. The purpose of this jumper was to clear annunciator alarm 57A56, "Containment Cooling System Train A Inoperable." The annunciator became energized when power was removed from valve 3HV6371. The inspector observed that this jumper was not documented on San Onofre Form 335, "Temporary System Alteration and Restoration." It appeared that this was contrary to procedure SO123-II-15.3, "Preparation, Review, Approval and Distribution of the Temporary System Alteration and Restoration Form SO(123) 335."

In particular, Section 1.2 of the above procedure stated that "This Form is required on all Quality Classes, Safety Related and Non Safety Related equipment...when a procedure does not address the temporary alteration or removal, and restoration of devices, lifted leads, temporary jumpers or circuit components." The inspector considered that the purpose of the Form was to document the

installation of all jumpers and lifted leads, and to ensure their removal at the completion of the work.

The inspector discussed this with the licensee, who indicated that this jumper was being controlled through documentation of its use in NCR 93010041. The licensee indicated that documenting a jumper in an NCR is an acceptable means of controlling its use. It was being controlled in this manner since the work on this valve was being performed under the control of various maintenance orders (MOs). Form 335 cannot be used when the jumper is to be installed under one MO and removed under another. As a result of these discussions, the inspector concluded that this documentation was sufficient to ensure the jumper would be ultimately removed. However, the inspector considered that the procedure appeared to be clear that Form 335 should be used for all jumpers and lifted leads. This concern was discussed with the licensee for evaluation and is identified as inspector followup item (50-361/93-02-04).

No violations or deviations were identified.

9. Review of Licensee Event Reports (90712, 92700)

Through direct observations, discussion with licensee personnel, or review of the records, the following Licensee Event Reports (LERs) were closed:

Unit 1

92-003, Rev. 0	"Missed Sample Of In-Service Waste Gas Decay Tank Due To Personnel Error."

Unit 2

92-009, Rev. 1	"Mis-Alignment Of Unit 2 Salt Water Cooling Pump P112 Emergency Seal Water Supply Isolation Valve."
92-011, Rev. 0	"Fire Protection System Impairment Compensatory Actions Not Performed In Accordance With Technical Specifications."

No violations or deviations were identified.

10. Exit Meeting

On February 16, 1993, an exit meeting was conducted with the licensee representatives identified in Paragraph 1. The inspectors summarized the inspection scope and findings as described in the Results section of this report.

The licensee acknowledged the inspection findings and noted that appropriate corrective actions would be implemented where warranted. The licensee did not identify as proprietary any of the information provided to or reviewed by the inspectors during this inspection.