

U. S. NUCLEAR REGULATORY COMMISSION

REGION V

Report Nos. 50-206/85-18, 50-361/85-17, 50-362/85-16

Docket Nos. 50-206, 50-361, 50-362

License Nos. DPR-13, NPF-10, NPF-15

Licensee: Southern California Edison Company  
P. O. Box 800, 2244 Walnut Grove Avenue  
Rosemead, California 91770

Facility Name: San Onofre Units 1, 2 and 3

Inspection at: San Clemente, California

Inspection conducted: May 20-24 and June 3-7, 1985

Inspector:

*PPN*

P. P. Narbut, Reactor Inspector

*7/1/85*

Date Signed

Approved By:

*PA Johnson*

P. H. Johnson, Chief, Reactor Projects Section 3

*7/1/85*

Date Signed

Summary:

Inspection on May 20-24 and June 3-7, 1985 (Report Nos. 50-206/85-18  
50-361/85-17 and 50-362/85-16)

Areas Inspected: Routine, unannounced regional based inspection of Units 1, 2 and 3 operations activities including licensee action on IE Bulletins, Circulars, previous NRC inspection followup, and unresolved items.

The inspection involved 74 inspector-hours onsite by one NRC inspector.

Results: No violations or deviations were identified.

8507220410 850702  
PDR ADOCK 05000206  
Q PDR

## DETAILS

### 1. Persons Contacted

\*R. W. Krieger, Deputy Station Manager  
\*P. A. Croy, Manager, Compliance  
\*D. Schone, Site Quality Assurance Manager  
\*C. A. Kergis, Lead Quality Assurance Engineer  
M. P. Short, SOI Project Manager  
\*N. Maringas, ISEG  
\*P. J. Wilson, Lead Procurement QA Engineer  
\*J. L. Crawford, QA Engineer  
\*J. F. Grosshart, QA Engineer  
\*R. F. Penn, Codes Engineer  
\*T. D. Garven, Lead QA Engineer  
\*K. A. Slagle, Manager, Materials and Administrative Services  
S. Balog, Project Engineer  
J. Reilly, Technical Manager  
R. Berkshire, Project Engineer  
E. Holmes, Engineer, Station Technical  
G. McDonald, QA Supervisor  
J. Arnold, QA Engineer  
W. Robinson, QA Engineer  
C. Brendal, CDM  
S. Hunn, Supervisor, CDM  
J. Rudolph, Station Engineer

\*Denotes those personnel in attendance at the exit interview on June 7, 1985.

### 2. Licensee Action on Previously Identified Inspection Items

- a. (Open) Violation (50-206/85-13-01), Unauthorized design change, stud material for RHR valves changed to a lower strength material

The licensee engineering representative informed the inspector that a review of the stud material substitution was essentially complete. The licensee had changed the stud material back to the original carbon steel and had also determined that some of the piping flange to piping flange material substitutions should be changed back. At the exit interview the inspector requested licensee management to address in detail (in their written response to the violation) the reasons for the change and the operability of the system during the period during which the lower strength studs were installed.

- b. (Open) Violation (50-206/84-28-01), Seals not installed in conduits for reactor vessel head vent valves

The inspector reviewed the licensee response to the notice of violation, SCE to NRC letter dated November 20, 1984, and reviewed the status of committed actions with licensee personnel. The licensee had provided a temporary water seal with an RTV compound which was equal to that used in environmental qualification testing. The licensee plan to replace the RTV seal with permanent CONAX seals

is committed to be done not later than the Cycle IX refueling. At the time of inspection, the licensee had not yet issued a design change package or ordered material for the CONAX seals. Therefore this item remains open.

c. (Closed) Followup Item 50-206/82-34-01, Observation of Calibrations

This followup item did not involve a specific problem or question and was included as a tracking method only. Subsequently, surveillance calibrations have been observed by the resident inspectors as part of their routine inspections. Therefore, this item is closed.

d. (Closed) Followup Item 50-206/83-01-01, Proposed facility changes review incomplete

This followup item was not a specific issue or problem area. It was included on the NRC open items list as a tracking method to examine the Unit 1 design control program.

The Unit 1 design control program was extensively inspected in the team inspection for return-to-service report 50-206/84-16. Therefore, this item is closed.

e. (Closed) Unresolved Item 50-206/82-25-01, Improperly secured wide beam flange

This item dealt with an observation of miscellaneous support steel not properly bolted. Followup inspection was performed as stated in reports 50-206/82-27 and 82-30.

Licensee actions were verified by the inspector in that the nonconformance report (NCR S01-P-1155), signed off complete on January 9, 1984, documented the replacement of missing bolts and retorquing of all bolts in the connection. Secondly, the "missing drawing" for connection details was located by the licensee and is Brisbane Iron Works drawing Log No. BSD-260 as recorded in CAR S01-P-600.

This item is considered closed based on the licensee's actions and extensive steel inspections conducted by an NRC contractor during the return-to-service effort.

f. (Closed) Violation 50-361/82-12-01, Failure to conduct temporary modifications as required

This subject of this item was addressed and resolved in report 50-361/82-17 paragraph 6.f. Additionally, the subject was superseded by violation 83-06-04. The licensee's revised corrective action was examined and closed in report 50-361/83-32.

- g. (Closed) Followup Item 50-361/82-30-06, Housekeeping Procedure Inconsistencies

The inspector verified the inconsistent procedure had been superseded and is no longer applicable. The subject of housekeeping has been an ongoing inspection topic of the resident inspection program. Therefore, this item is considered closed.

- h. (Closed) Followup Item 50-361/81-09-03, Calculation of component cooling water heat exchanger performance

The inspector examined the documentation associated with this item and verified that the initial indications of unsatisfactory preoperational test results were properly evaluated. The test results were ultimately determined to be acceptable. The initial unsatisfactory indications were apparently caused by local temperature indicators which did not extend sufficiency into the active salt water flow path to obtain valid temperature measurements. Design change package (DCP) 267J was issued and implemented on January 11, 1985, to rectify this. Therefore, this item is considered closed.

- i. (Closed) Followup Item 50-361/81-21-01, Inadequate calibration records of instrumentation components and systems

This item dealt with minor record keeping errors in construction calibration records for instruments and components.

The item is considered closed on the basis of having been superseded by the instrumentation and system calibrations conducted during subsequent preoperational testing and current surveillance testing.

- j. (Closed) Followup Item 50-361/82-12-03, Safety committee procedural deficiencies

This item dealt with improvements in the licensee's procedures for the safety committees required by technical specifications. Portions of the recommendation were examined in report 50-361/82-17.

The inspector examined the remaining recommendations, reviewed the licensee's current procedures, and verified the procedures had been revised to incorporate the recommendations. This item is considered closed.

- k. (Closed) Followup Item 50-361/82-12-04, Deficiency in the Program for Retest after Maintenance

The item identified the need for additional procedural guidance regarding retest requirements after maintenance. The inspector reviewed the revised procedures and the newer superseding procedures issued subsequent to the original revisions. The inspector determined that the original recommendations had been incorporated.

The licensee now has in place a Retest Manual, S023-XV-1.0, Revision 0, dated March 5, 1984, which appears to be a comprehensive list of tests required for various types of components, both electrical and mechanical, and includes specific retest requirements by reference to specific test procedures or portions thereof. This item is considered closed based on licensee actions.

1. (Closed) Followup Item 50-361/82-17-01, Inadequate Implementation of ANSI N45.2.6 and SNTC-1A Inspection Requirements for Rigging Equipment

This item described licensee procedural deficiencies in that the licensee procedures at the time did not specifically require that personnel performing periodic non destructive examinations (NDE) of rigging equipment be formally qualified for NDE.

The inspector examined the applicable procedures S0123-I-7.10 and 7.14 and verified the proper requirements had been incorporated. This item is considered closed.

- m. (Closed) Followup Item 50-361/82-32-01, Requalification Training Records

The subject area described by this item was examined and found satisfactory in report 50-361/84-32. Therefore, this item is considered closed.

- n. (Closed) Followup Item 50-361/83-18-01, Corrective Maintenance Order Inadequately describing work performed

This item did not provide specific detail regarding the inadequacy but indicated that maintenance orders did not adequately describe the maintenance performed, the corrective action taken or the cause of the deficiency.

The licensee has since completely changed the methodology of initiating, tracking, and recording maintenance orders and results. The current system is computerized and detailed. Current and ongoing inspections of maintenance operations have found documentation of maintenance work to be satisfactory. Therefore, this item is considered closed.

- o. (Closed) Followup Item 50-361/83-28-01, Procedure Changes concerning Limitorque HBC Series Gearheads

This item's action was to ensure the licensee incorporated a licensee proposed change to procedure S023-I-6.23 in response to Limitorque problems identified in Information Notice 83-02 and a Part 21 report.

The inspector verified the procedure change had been incorporated. The current procedure number is S023-I-6.150. This item is considered closed.



p. (Closed) Followup item 50-361/83-32-01, Licensee's Ability to Verify Compliance with Distribution Controls of Documents

In this item the inspector had expressed concern that the extensive distribution of controlled documents by the document control staff could tax their ability from a staff size standpoint. Additionally, the inspector noted that the licensee did not have a system of checks and balances to verify that changes entered by the document distribution staff had been accomplished accurately.

The inspector examined the controls and changes implemented since the concerns were expressed.

The licensee's actions included audits and reductions in the amount of the distributions made.

The licensee took three major actions to ensure document distribution was performed accurately. First, extensive regular QA audits were performed over a sixteen-month period in different controlled document locations. The QA personnel tracked error rates which were found to be initially high. As corrective measures were put in place the error rates were reduced significantly.

Secondly, the document distribution organization initiated self audits, which consist of a 100 percent check of each controlled document station on a regular basis.

Thirdly, the licensee has reduced the number of controlled stations from approximately 57 to 35.

Based on the licensee's actions taken and the system in place to check the accuracy of distribution control (through internal and external audit) this item is considered closed.

3. Licensee Action on IE Bulletins, Circulars and Information Notices

a. (Closed) Information Notice 84-83, Various Battery Problems

The problem areas identified in this notice were examined extensively in report 50-206/85-12, 50-361/85-09 and 50-362/85-08. Therefore, this Information Notice is considered closed.

b. (Closed) Bulletin 80-24 Prevention of Water Damage due to Water Leakage Inside of Containment

This bulletin was not applicable to SONGS 2/3 at the time of issue since the units were under construction at the time. The involved issues were handled for construction plants as long-term generic issues.

The inspector verified that SONGS 2/3 has two channels of indication for containment sump level. Additionally, two additional channels are in service for the emergency sump. In addition to that there

are other channels for levels above the sump. Some of the channels are powered by Class 1E power supplies.

Based on the number of containment sump level channels and the control room indication and alarms, it is considered extremely unlikely that containment flooding would go undetected. Therefore, this bulletin is considered closed for Units 2 and 3.

c. (Closed) Bulletin 80-23 Failure of Solenoid Valves by Valcor

This bulletin is considered closed for Units 2 and 3 on the basis of the licensee's letter to the NRC dated January 15, 1981, which states that Units 2 and 3 do not use any Valcor valves.

Additionally, the licensee had recently performed a re-review of all material related bulletins, in response to NRC findings described in report 50-206/85-13 for Bulletin 84-02. The re-review reconfirmed that the licensee does not have Valcor valves. Therefore, this bulletin is considered closed.

d. (Closed) Circular 79-18 Target Rock Safety Valves

The circular dealt with the subject of the need to properly insulate safety valves. The subject was partially examined in report 50-361/81-07. Additionally, the subject was closed for Unit 3 in report 50-362/83-01.

The inspector verified by review of Bechtel to SCE letter BE 5136 dated February 25, 1981, that the Bechtel specified insulation drawing (Transco drawing DR 4237) had been reviewed and approved by CE and the valve vendor. Therefore, this item is considered closed for Unit 2.

e. (Closed) Circular 80-09, Plant Internal Communications

This item was examined and partially closed in report 50-361/81-07. The remaining action was for the licensee to perform a startup test to evaluate the effect (on plant electronic equipment) of the use of two way portable radios.

The same issue was addressed and closed in Unit 3 in report 50-362/83-01, which shares the control room and has duplicate electronics. This circular is therefore considered closed for Unit 2.

f. (Closed) Circular 81-10, Steam Voiding in the Reactor Coolant System during Cooldown

The Circular describes an event at another site wherein steam voiding occurred due to a rapid cooldown and depressurization.

This item is considered closed for Units 1, 2 and 3 based on superseding TMI action items dealing with the same subject.

g. (Open) Bulletin 84-02, HFA Relays

The inspector reviewed the status of the licensee's commitment for procurement QA reverification of the previous material searches conducted for generic material problems.

The procurement QA reverification consisted of a review of supply administration personnel's written reaffirmation that a second search had been conducted. The inspector noted to licensee management at the exit interview that the commitment for QA reverification had been taken to mean some degree of QA sampling and audit to verify the accuracy of the material searches. Licensee management committed at the exit interview that they would indeed perform QA checks of the accuracy of the material searches prior to completing action for this item.

4. Licensee Action on Material Supplier Problems

a. (Closed) Target Rock Solenoid Valve, hold down nut locking device (Region V Item TY-85-01)

A December 4, 1984 letter from Target Rock Corporation to the NRC described a problem discovered during environmental qualification testing with certain models of valves wherein vibration aging caused loosening of a solenoid hold down nut.

The licensee was provided the information regarding Target Rock through CE. The licensee has issued design change packages (DCPs) which will add insulating washers and locking nuts to 18 valves in each unit (DCP 6088 OJ). A second DCP, DCP 6377M, is being considered to replace two of the valves with a different model, which may reduce the total to 16.

The item is considered closed for Units 2 and 3 based on the licensee's planned actions.

b. (Closed) Transamerica Delaval Diesel Generator, Starting Air Check Valve (Region V Item TY-85-07)

On March 12, 1985 letter from Transamerica Delaval to the NRC provided a Part 21 report regarding the starting air check valves. The letter recommended disassembly and a check of the disc guide for cracks. A second letter dated April 10, 1985, recommended a replacement valve. The licensee received notification from Transamerica Delaval and replaced the potentially defective check valves on Maintenance Orders MO 85041182 and 85041180.

This item is considered closed for Unit 1 and is not applicable to Units 2 and 3.



- c. (Closed) Transamerica Delaval Diesel Generator, Crankshaft Oil Plugs  
(Region V Items TY-85-08 and 85-08-P)

On March 18, 1985, a letter from Transamerica Delaval to the NRC provided a Part 21 report describing problems with the crankshaft oil plugs. The letter recommended inspection of the oil plugs and replacement with a heavier gage plug if, indeed, a lighter gage plug was installed.

The licensee has written Maintenance Orders MO 85040823 and 85040824 to inspect the oil plugs at the next major diesel generator outage. Additionally, the licensee contacted Transamerica Delaval and documented their opinion that the SONGS 1 diesels have a very low probability of having the lighter gage oil plugs based on a search of records.

This item is considered closed for Unit 1 based on the licensee's planned actions and is not applicable to Units 2 and 3.

- d. (Closed) Transamerica Delaval Diesel Generator, Fuel Control  
Shafts (Region V Item 84-04-P)

On October 2, 1984 letter from Transamerica Delaval to the NRC provided a Part 21 report which described potential problems with the torquing and pinning of the Fuel Control Shafts and recommended inspection and corrective action if required.

The licensee performed the inspection, found one engine with a missing pin and corrected the problem (reference ISEG Log 85-ISEG-001, accepted January 11, 1985).

This item is closed for Unit 1 and is not applicable to Units 2 and 3.

- e. (Closed) Transamerica Delaval Diesel Generator, Engine Control  
Panel Air Filter (Region V Item TY-85-04)

A January 22, 1985 letter from Transamerica Delaval to the NRC provided a Part 21 report regarding the Air Filter for the Engine Control Panel. The report stated that there was potentially a polycarbonate filter bowl installed which should be replaced with a metal filter bowl.

The licensee verified the polycarbonate filter bowls are installed and has ordered parts. Maintenance Orders MO 85020383 and 85020384 have been written to replace the bowls.

This item is considered closed for Unit 1 based on the licensee's planned actions and is not applicable to Units 2 and 3.

- f. (Open) Brown Boveri Voltage Balance Relays Model ITE-60 Operating Time Deficiency (Region V Item 84-00-P)

On October 29, 1984, a letter from Brown Boveri to the NRC described a problem with the relay operating time not meeting specification requirements.

The licensee had not been directly apprised of the problem by Brown Boveri. The licensee had obtained a copy of the Brown Boveri notification to the NRC and issued a problem report PRR A-101-84 dated December 12, 1984. Licensee investigation determined that the relays are used in the Units 2 and 3 diesel generators but are bypassed on a safety injection actuation signal and therefore do not affect safety studies.

This item remains open pending licensee final actions.

- g. (Closed) Steel Supplied by Bonney Forge Incorporated through McJunkin Corporation

The licensee received a letter dated March 27, 1984 from McJunkin Corporation. The letter indicated that McJunkin had been advised by Bonney Forge that some material provided by Bonney Forge to McJunkin to SCE lacked the product analysis required by ASME.

The inspector reviewed the licensee's records for the listed purchase orders and the material certifications (chemical and physical) and found them to be in order.

This item is assigned a followup number for record purposes and is considered closed. (Followup Item 50-361/85-17-01)

5. Management Meeting

The inspector met with the licensee representatives denoted in paragraph 1 at the conclusion of the inspection on June 7, 1984. The inspector summarized the scope and findings of the inspection.