U. S. NUCLEAR REGULATORY COMMISSION

REGION V

Report Nos. 50-206/87-07, 50-361/87-06, 50-362/87-07

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

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

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

Facility Name: San Onofre Nuclear Generating Station Units 1, 2, and 3

Inspection at: San Clemente, California

Inspection Conducted: March 9 - April 17, 1987

Inspectors: for P. M. Qualls, Project Inspector — 5/7/87 Date Signed

J. O'Brien, Reactor Inspector — 5-7-87 Date Signed

Approved by: P. H. Johnson, Chief, Reactor Projects Section 3 — 5/7/87 Date Signed

Inspection Summary:

Inspection on March 9 - April 17, 1987 (Report Nos. 50-206/87-07, 50-361/87-06 50-362/87-07)

Areas Inspected: Routine project inspection in the areas of corrective action, open item followup, overpressure protection, and independent inspection. Inspection Procedures 30703, 92720, 92701, and TI 2500/19 were covered.

Results: In the areas inspected, no violations or deviations were identified.

DETAILS

1. Persons Contacted

*D. Schone, Quality Assurance (QA) Manager
*D. Herbst, Independent Safety Engineering Group (ISEG) Supervisor
*N. Maringas, ISEG Engineer
°*C. Corser, Compliance Engineer
*R. Plappert, Compliance Engineer
*S. Allman, SDG&E Manager, Nuclear
*J. Winter, SDG&E Engineer
*B. Katz, Operations and Maintenance Support (O&MS) Manager
*J. Harmon, QA Supervisor
°*W. Zintl, Compliance Manager
*K. Johnson, Engineering Supervisor
°W. Lazear, QA Supervisor
S. Gosselin, Supervisor, NSSS Mechanical Engineering
M. Rodin, O&MS Supervisor
M. Farrell, O&MS Engineer
M. Barr, Compliance Engineer

*Denotes attended meeting on March 13, 1987.

°Denotes attended meeting on April 16, 1987.

In addition, other members of licensee staff were contacted during the course of the inspection.

2. Corrective Action (IE Manual Chapter 92720)

The inspector reviewed the licensee programs and procedures for control and review of Operational Events, internally identified problems, QA audits, NRC inspection findings, employee concerns and special reports. For each of these areas, it appeared to the inspector that appropriate instructions were provided to:

- Ensure that a problem is reported to the appropriate levels of plant management and, if required, to the NRC.
- Establish actions and responsibilities to resolve the problem.
- Prioritize problems with safety significance.
- Set forth a method to follow corrective action to completion.
- Ensure that completed items are closed out.
- Require periodic QA audits.
- Require a quality trend program.

a. Operating Events

The inspector reviewed the licensee program to identify, report, track, correct, review and close out operational events including LERs and generic letters. The program appeared to the inspector to function efficiently.

b. Internally Identified Problems

The inspector followed through on the licensee's corrective actions for several internally identified problems. The problems appeared to have been tracked and corrected according to licensee procedures.

c. QA Audits

The inspector reviewed the followup procedures and tracked through the licensee system several QA audit identified deficiencies. The deficiencies appeared to have been identified, tracked and corrected in accordance with licensee procedures.

d. Employee Concern Program

The inspector reviewed this program in Inspection Report 50-206/87-06.

e. Special Reports by Internal or Other Organizations

The inspector reviewed the licensee corrective action system for both ISEG items and INPO items. The system appeared adequate to ensure that problems were tracked and corrected in an appropriate manner.

f. Periodic QA Report

The licensee receives a periodic report from the QA organization concerning the status of identified plant discrepancies. The licensee reporting system appeared to the inspector to prevent a large backlog of corrective items.

g. Quality Trend Program

The inspector reviewed the licensee corrective action quality trend program. The program appeared to be effective in identifying repetitive problems and to help identify possible solutions to these.

3. Temporary Instruction 2500/19

The inspector reviewed the low temperature transient overpressure protection in place at the facilities. Unit 1 changes the setpoint of the PORVs when the plant is at a low temperature. Units 2 and 3 use the installed mechanical relief valves in the Shutdown Cooling System.

The inspector reviewed the safety evaluations for all three units, and verified that the setpoints conformed to 10 CFR 50 Appendix G. The inspector reviewed system drawings and it did not appear to the inspector that a single failure could disable or render inoperable the systems.

Operation of the systems is controlled by licensee procedures. The operators are trained in the use of these procedures. In Units 2/3 the licensee, by procedure, limits charging pump usage to one pump. PORV electronics and setpoints appeared to be verified periodically.

4. Licensee Actions on Previous Inspection Findings

The inspector reviewed the following open items with conclusions as noted:

a. 50-206/85-31-01 (Closed). The licensee committed to make some circuit modifications. These modifications are tracked internally by the licensee's tracking systems. The NRC audits these programs and has a periodic modification review. The current scheduled date for the licensee to make the circuit modifications is during the Cycle XI refueling outage, currently scheduled for fall of 1990. The followup item is closed as the modification tracking is being done internally by the licensee and the NRC monitors the licensee programs.

b. 50-206/86-20-01 (Closed). The Writer's Guide problems were resolved with a revision to the guide with an effective date of February 9, 1987. This revision incorporated the INPO standards.

c. IN-86-25 (Closed). ISEG Report 86-ISE077 reviewed this notice for all three units. No problems were identified. This item is closed for all three units.

d. 50-361 and 50-362/IB-86-03 (Closed). The licensee sent to the NRC a letter dated November 17, 1986. The licensee evaluation showed that their ECCS systems were not vulnerable to the single failure described. This item is closed.

e. 50-361/84-15-01 (Closed). TCN 1-4 to SO123-XI-2.1 was issued to resolve the potential problem of using commercially procured material in safety-related systems. This item is closed.

f. 50-361/85-35-01 (Closed). The inspector reviewed licensee procedures TCN 10-8 for SO123-XI-1.8 and TCN 0-3 for SO123-XVII-5.2.1. The Control of Problem Equipment (COPE) program appeared to be fully implemented by these changes.

g. Special Reports 50-361/21-65-XI and X2 (Closed). These are the same issues as listed in LER-82-165. The licensee did a complete system snubber examination. A total of 7 were found damaged and were replaced. The evaluation said that the damage probably occurred during a March 1981 water hammer transient during startup testing. A licensee evaluation indicated that the feedwater piping had not been overstressed. These items are closed.

h. 50-362/79-09-01 (Closed). This item discussed an inspector's concern that piping be inspected for mechanical damage prior to installing insulation. The licensee provided information to the inspector that, after the hot functional testing phase of startup, the insulation was removed completely and a total piping inspection was conducted. This item is closed.

i. 50-362/84-24-02 (Closed). This item concerned the licensee finding during testing that the Component Cooling Water (CCW) system flows were slightly below the FSAR values. The licensee conducted an evaluation which determined that the flowrates were adequate and within safety margins. This item is closed.

j. LER 50-362/82-06. This concerned an Engineered Safety Features (ESF) actuation caused by a connector termination which by a single failure resulted in the ESF actuation. The connector deficiency has been corrected by DCP 3-146CE. This item is closed.

k. 50-206/GL-86-16 (Closed). The Westinghouse ECCS models listed in this letter were not used at San Onofre. This item is closed.

l. 50-206/85-11-01, 50-361/85-11-01, 50-362/85-10-01. The licensee revised Procedure SO123-XIII-13 to limit the amount of combustible materials allowed to be kept in plant areas containing safety-related equipment. These items are closed.

m. 50-361/86-25-09 (Closed). The inspectors verified that the licensee had these records available for review. These records undergo the same licensee review by the quality control program as the records reviewed at the time of the NRC audit, which were satisfactory. In addition, the NRC monitors licensee actions in this area. This item is closed.

n. Licensee Followup of 10 CFR Part 21 Reports

(1) Closed 10 CFR Part 21 Reports: (50-206, 50-361, 50-362)

The inspector examined the 10 CFR Part 21 packages for the below listed outstanding items. The inspector reviewed the packages to verify that the licensee entered each into their system, the appropriate engineering disciplines reviewed the package, and appropriate correction action was taken. The inspector further verified that when appropriate, the identified part or component was entered into the COPE system to alert the SCE purchasing system to the problem. Based on this review, the following open items are closed (all 3 units):

85-20-P Defect on undervoltage trip device (GE-AK&AKR)
86-15-P Limitorque - motor lead insulation breakdown
86-18-P Limit switch cracking on Limitorque valves
86-22-P Disqualification of Wilmar undervoltage relays
86-23-P Atwood & Morrill MSIV Thrust Bearing Problems
86-25-P Buchanan 724 Terminals for Limitorque Valves

86-26-P SOR Inc. prefixed Gauge Pressure Switches
86-28-P Contromatics - manual jackscrew failures

(2) (Open) Part 21/86-20-P - Foxboro E and H Series Controllers. (Unit 1 only)

Neither the licensee's Rosemead office nor the onsite review group that handles Part 21 reports (O&MS) had received this report. A copy of the Region V file copy was presented to the onsite review group, and their review is in progress. This will be followed up during a future inspection.

No violations or deviations were identified.

o. 50-361/86-25-02 (Closed). This issue involved a licensee commitment to formalize a corrosion monitoring program for portions of the saltwater cooling and auxiliary feedwater systems. The inspector reviewed the San Onofre Maintenance Management System (SOMMS) and the Repetitive Maintenance Order (RMO) that was issued to address this issue. Also reviewed was a sample of completed RMOs for painting and corrosion control efforts. This item is closed.

p. 50-361/86-25-03 (Open). This item dealt with a training deficiency for the operators, and their understanding of the auxiliary feedwater pump overspeed trip. Procedure review is completed. Some of the on-the-job training (OJT) had been completed but not completely documented. Also a videotape for future training was committed but had not yet been produced. The expected action completion date is May 29, 1987.

q. 50-361/86-25-04 (Closed). This item dealt with how the licensee will assign responsibility for evaluating lessons learned from a Major Operating Event. The licensee responded to this issue in their NOV response, dated February 13, 1987. Basically, the ISEG is responsible for evaluating Major Operating Events, and this effort will be tracked using the San Onofre Commitment Register. This item is closed.

r. 50-361/86-25-05 (Open). A review of all safe shutdown equipment and the training requirements for manual operations of that equipment is still in progress. The licensee was unable to provide a tentative completion date.

s. 50-361/86-25-06 (Open). The licensee has corrected those material discrepancies identified in the report, and the operations department is still reviewing what additional Auxiliary Feedwater Valve position indication is required. Tentative completion date is April 30, 1987.

t. 50-361/86-25-07 (Closed). This item involved a concern by the inspector regarding internal temperatures in the Class IE inverters and the need for additional temperature recording capability. The inspector reviewed the engineering evaluation performed and data sheets of temporary monitoring equipment that was installed to

assess this concern at various plant power levels. A further review of SOMMS history indicated no trend of heat-related failures of these components. This item is closed.

u. 50-361/86-25-08 (Closed). This item involved a concern that a single fused circuit protective device was used to feed two (2) branch circuits in an Engineering Safety Features instrument power supply. Also, it was noted that fuse and circuit arrangement was not installed in accordance with the National Electric Code (NEC) and the Underwriters Laboratory (UL) Standard. The inspector reviewed and verified the information in the revised 10 CFR 50.59 report and engineering evaluation, that basically said:

(1) San Onofre Units 2 and 3 electrical design and materials are governed by the applicable IEEE and ANSI standards, not the above mentioned standards. (Noted in the report was the fact that, in this case, they do not disagree.)

(2) As originally installed, each branch has its own circuit protection, each properly sized as per standards.

(3) The connector is properly sized, the conductors are the same wire size, it was qualified by Cyberex for use with two conductors, and it meets industry standards, including the NEC intent.

This item is closed.

v. 50-206/85-31-02 (Open). This item dealt with the licensee replacement of carbon-steel bolts with stainless-steel bolts for the body-to-bonnet flange on qualified valves. The inspector reviewed the licensee engineering evaluation and submittal to the NRC. This item remains open pending NRR's review of the licensee calculations.

w. 50-206/85-37-01 (Closed). During an NRC inspection in June, 1986, (86-26), this item was closed with the exception of waiting for retest of the Safety Valves and to submit this data to the NRC resident inspectors. The inspector verified that these actions were completed and data was in compliance with SO1-I-2.4, I-6.64, and applicable standards. This item is closed.

x. 50-206/85-37-02 (Closed). This item dealt with the above mentioned test and discrepancies with the test procedure and the before/after calibration checks done on the Hydroset device gauges. The inspector reviewed the revised test procedures, most recent test data and calibration test checkoff sheets, and verified that the test now meets the applicable ASME standards. Further, the licensee has reviewed other ISI safety valve tests and those procedures identified as requiring revision and retesting have been completed. This item is closed.

y. 50-206/86-22-01 (Closed). The inspector reviewed a study conducted by the license to identify the source of colloidal ferrous oxide and magnetite seen in the RCS and refueling cavity, and to assess its

affect on operations. This study concluded that the material is sediment from grit blasting associated with the 1980 Steam Generator Sleeving Project. This same problem was seen to a much larger degree during an earlier outage. Operational and radiological concerns are or will be tracked under separate followup items. This item is closed.

5. Facility Tours

On several occasions during the course of the inspection, the inspectors made inspection tours of the different units with the following observations:

- In general, housekeeping appeared in good order with no significant amount of combustible material observed improperly placed in an area.
- A health physics barrier was partially loose; licensee personnel corrected the item when brought to their attention.
- No significant material condition defects were observed.
- No safety hazards were noted.

6. Exit Meeting

Exit meetings were held on March 13 and on April 16, 1987, with persons denoted in paragraph 1. The items mentioned in this report were discussed at these times.