U. S. NUCLEAR REGULATORY COMMISSION

REGION V

Report No. 50-206/82-37
50-361/82-42

Docket No. 50-206, 50-361 License No. DPR-13, NPF-10 Safeguards Group _____

Licensee: Southern California Edison Company

P. O. Box 800, 2244 Walnut Grove Avenue

Rosemead, California 91770

Facility Name: San Onofre Units 1 and 2

Inspection at: San Clemente, California

Inspection conducted: December 1-22, 1982

Inspectors: D. F. Kirsch for L. Miller, Senior Resident Inspector, Unit 1 — 1/6/83 Date Signed

_____ — _____ Date Signed

Approved by: D. F. Kirsch — 1/6/83 Date Signed
D. F. Kirsch, Chief, Reactor Projects Section No. 3
Reactor Projects Branch No. 2

Summary:

Inspection on December 1-22, 1982 (Report Nos. 50-206/82-37, 50-361/82-42)

Areas Inspected: Routine, resident inspection of plant operations during long-term shutdown; monthly maintenance and surveillance activities; and followup of Licensee Event Reports, inspector identified items, unresolved item, and Notices of Violation. This inspection involved 65 inspection hours by one NRC inspector.

Results: No items of noncompliance or deviations were identified.

DETAILS

1. Persons Contacted

*H. B. Ray, Station Manager
*J. J. Wambold, Station Maintenance Manager
*P. A. Croy, Compliance and Configuration Control Manager
*R. E. Orewyler, Assistant Maintenance Supervisor
*W. C. Moody, Deputy Station Manager
*J. Reeder, Superintendent, Unit 1
*G. W. McDonald, Quality Assurance/Control Supervisor, Unit 1
*L. R. Horton, Startup Quality Assurance Supervisor, Units 2/3

The inspector also interviewed other licensee and contractor personnel during this inspection.

*Denotes those attending the Exit Interview on December 22, 1982.

2. Inspection of Plant Operations During Long-Term Outage (Unit 1)

The unit remained in cold shutdown throughout this period. Approximately 100 craft workers were employed in the seismic upgrading of the Unit. The inspector frequently observed Control Room operations for proper shift manning, adherence to procedures and limiting conditions for operation, and appropriate recorder and instrument indications. To determine operator awareness of plant status, the inspector discussed the status of annunciators with Control Room operators and observed shift turnovers. Selected morning meetings were attended to assess the licensee's outage coordination. The inspector noted at the December 14 meeting that plant operators were not aware that the spent resin solidification system had been operated the previous evening. The inspector discussed this oversight with the Unit Superintendent, who stated that he had already initiated action to prevent recurrence.

The Control Operator's log was reviewed to obtain information on plant conditions and to determine whether regulatory requirements had been met. Other logs, including the Watch Engineer's Log, were also reviewed several times. Selected maintenance orders for the current month were reviewed. The licensee's system for identifying equipment deficiencies appeared to be functioning adequately. The equipment control, abnormal equipment, and clearance records were examined, and tags for the boric acid injection pump, south charging pump and test pump were verified to have been hung properly. Steam generator chemistry results for December 9, 1982 were reviewed and verified to be acceptable.

The inspector frequently toured the accessible areas of the facility to assess equipment conditions, radiological controls, security, housekeeping, and fire protection. During one of these tours, on December 2, 1982, the inspector noted that the foundation for the lower component cooling water heat exchanger was extensively corroded. Licensee personnel stated the corrosion would be inspected, and repaired as needed. This item remains open pending this corrective action (50-206/82-37-01).

The inspector's tours indicated that controlled area access points were generally safe and clean. Several Radiation Exposure Permits were reviewed for completeness. Surveys of low specific activity material were observed. No potentially contaminated material was observed in spotchecks of trash containers. Selected radiation measuring instruments in use appeared operable and were in calibration. Plant housekeeping was adequate.

The inspector examined the installation of the temporary steam generator nitrogen sparging system and the temporary air system for the saltwater cooling pump discharge valves. The inspector verified that these systems were operable.

Manning of security posts, integrity of protected area barriers and isolation zones, conduct of search procedures, and personnel identification measures were observed at intervals by the inspector.

No items of noncompliance or deviations were identified.

3. Monthly Surveillance Activities - Units 1 and 2

The inspector witnessed the following surveillances:

a. Diesel Generator Load Tests (SO1-12.3-10)

b. Nuclear Instrument Safety Channel D Linear Power Calibration (SO1-II-5.24)

c. Nuclear Instrument Calibration Channels 1203, 1204 (SO1-II-1.6)

d. Control Element Assembly Calculator Test and Calibration (SO23-II-6.2.3, Isolation Amplifier and Reed Switch Transmitter Subsections)

The inspector verified that the procedures used were consistent with applicable Limiting Conditions for Operation, that test instrumentation used had been calibrated, and that test results were acceptable. The systems tested were properly removed from and returned to service. Pretest briefings of test personnel were held as appropriate. Test personnel identified test discrepancies, during the performance of a. and c. above, and the inspector verified that the discrepancies had not invalidated the tests. The inspector reviewed the test data for accuracy and completeness.

The major surveillance of this group was a series of diesel generator load tests at Unit 1. The tests followed work to repair a faulty electronic governor and regulator and troubleshoot a leak in the pneumatic control system of the No. 1 Diesel Generator. During the tests it was discovered that the diesel generator could reach and sustain rated real load and voltage specifications at low reactive load, but not at high reactive load. Reactive load was not a test acceptance criteria. The significance of this observation will be examined further during subsequent inspections to determine whether or not reactive load acceptance criteria are appropriate and necessary. This item is open (50-206/82-37-02).

No items of noncompliance or deviations were identified.

4. Monthly Maintenance Activities

a. The inspector examined the maintenance organization at Units 2 and 3 to determine how maintenance was planned. The inspector determined that no comprehensive schedule for maintenance work was being prepared. Instead individual foreman, equipment control and maintenance planners from several maintenance organizations generate more or less formal schedules for their particular organizations. These organizations include the licensee station and startup groups, as well as contractor, project and maintenance services groups. The inspector discussed this organization with the station maintenance manager, and stated that this diversity of planning groups resulted in maintenance scheduling that was fragmented.

The licensee representative stated that a comprehensive maintenance control system was planned for implementation early next year. Further, the licensee indicated that this system (PPMIS) will be computer based, and the computer information will be current enough to use day-to-day. Also, the representative noted that the maintenance organization was in transition from construction to operations and, following this period, the number of parallel scheduling organizations would be reduced. The inspector stated that the licensee's progress at unifying the scheduling of maintenance would be examined in future inspections.

b. The inspector witnessed portions of the following activities:

1. Charging Pump 192 Repacking (MPMS 512) (Unit 2)

2. Resin Transfer and Solidification (SO123-C15-C-0252, SO1-5-6, et. al.) (Unit 1)

3. Turbine HP Control Valve Replacement (Unit 2)

4. Turbine LP Stop and Intercept Valve Inspection (Unit 2)

5. Main Steam Dump Stop Valve to Condenser (MV 598) Reporting (Unit 1)

6. Nitrogen Sparging of the Steam Generators (SO1-SPO-35) (Unit 1)

The inspector determined that the procedures or work orders used for these activities were consistent with applicable limiting conditions for operation, clearances were obtained where necessary for protection of equipment and personnel, necessary tools were properly calibrated and used, and the activities had been properly authorized.

The inspector observed, during resin solidification (Item (2)), that the system operator was not following the procedure explicitly. Although the operator clearly believed he was closely following the procedure, he deviated from it several times. These deviations included signing off, as complete, steps of the required checklist which were not completed, modifying a valve lineup checklist to eliminate the need to reposition some valves once resin transfer began, and omitting a required test of the cement blower fan. The inspector noted that none of these deviations were unsafe, but expressed concern that the worker involved apparently did not consider any of these practices to be deviations from the procedure, and had not documented them as deviations. At the Exit Interview, the inspector expressed concern regarding the deviations from strict procedural compliance observed while operating this system. A licensee representative agreed and stated that the contractor management and workers involved had been strongly advised that procedural compliance in this area was mandatory.

The inspector noted during the turbine valve work (Items (3) and (4) above) that the work orders used to describe the tasks did not document bolt torque or stretch acceptance criteria for valve reassembly. These valves are required to be operable for turbine missile prevention by Technical Specification 3.3.4 (Unit 2). The inspector advised the licensee that acceptance criteria commensurate with the importance of the safety function (turbine missle prevention) were required by Criterion 1, "Quality Standards and Records," of Appendix A to 10 CFR 50. In addition, the inspector noted that the station procedure for high pressure control valve reassembly (SO23-I-2.49) appeared to have different torque criteria than those used by the contractor (which were verbally specified by the turbine vendor representative). This item is unresolved pending further discussion with licensee personnel (50-361/82-42-01).

Finally, the inspector observed the nitrogen sparging of the Unit 1 steam generators (Item (6) above). The inspector noted that all steam generators were filled to a level of approximately four feet above the feedring. A temporary vented tygon tube was used at the steam generator to indicate this level. Remote level indicators do not indicate accurately at this high level, which is above the upper sensing tap. The inspector suggested that a calculation be performed of the required amount of water needed to fill the steam generators prior to filling them, but the steam generator capacity charts needed for this calculation were not available in the control room. Coincidentally, the operator discovered that the "C" steam generator tygon level tube was partially crimped, and an erroneous local level indication resulted. Steam generator overfill did not occur. The inspector discussed this event with the Unit Superintendent, who agreed to develop a method to cross check the local steam generator level indicator to prevent overfilling the steam generator, and to caution operators to use all available methods to measure steam generator level.

No items of noncompliance or deviations were identified.

5. (Open) (50-206/82-35-01) Unresolved Item: Unusual Event Definition

The inspector noted that this concern has been referred to NRR for resolution of whether or not the licensee's changes to the emergency plan implementing procedures have diminished the effectiveness of the plan. This item remains open.

6. Followup on Notices of Violation (Unit 1)

a. (Closed) (50-206/82-32-01) Insufficient Open Flame Process Controls

The inspector reviewed the licensee's response to this violation, discussed it with licensee personnel, and confirmed by field observation that open flame process controls had been improved. This item is closed.

b. (Closed) (50-206/82-32-02) Missing Fire Watch in Lube Oil Reservoir

The inspector reviewed the licensee's response, and confirmed by frequent observation that further lapses in fire watch coverage were not occurring. This violation and the licensee's corrective action were also discussed in the previous inspection in connection with Licensee Event Report 82-025. This item is closed.

c. (Closed) (50-206/82-26-03) Missing NARC Design Change Reviews

The inspector met with licensee personnel who provided documentation to substantiate that the Nuclear Audit and Review Committee (NARC) had in fact reviewed most of the design changes which the licensee had previously believed had not been reviewed. The inspector selected several of these changes and confirmed that a record of review existed, and confirmed that the four changes which were not originally reviewed were reviewed subsequent to the violation. This item is closed.

d. (Closed) (50-206/82-17-02) Intake Structure Flooding

The inspector verified that checklists for the saltwater cooling pumps had been developed and implemented as an attachment to SO1-14-12, "Equipment Control Implementation". This item is closed.

7. Followup on Licensee Event Reports (LERs) - (Unit 1)

a. (Closed) (LER 82-17) Waste Gas System Unidentified Leakage

The inspector discussed with the cognizant supervisor the licensee's plans to modify the waste gas system to prevent unidentified leakage from the waste gas system tanks. The licensee explained that a design change was being developed (Scope of Work Document No. M-80026) which would add check valves, filters, tank and pump pressure gauges, and a pressure recorder. The inspector stated, and a licensee representative agreed, that it was important to correct the system leakage prior to restart of the Unit. The review of this report is closed.

b. (Open) (LER 82-021) Safety Injection Valve Accumulator Bladder Failures

The inspector requested the status of the licensee's investigation of the cause for these bladder failures. Licensee personnel stated that discussions with the vendor were still in progress. A report to the NRC following these discussions was still planned. This report remains open.

No items of noncompliance or deviations were identified.

8. Followup on Inspector Identified Items (Unit 1)

a. (Closed) (82-32-03) Restoration of Hydrogen Line Pipe Supports

The inspector reviewed the Nonconformance Report for this line and the Fire Hazards Analysis for the Condensate Storage Tank Area (Fire Area No. 10). The inspector noted that a rupture

in the hydrogen line should be mitigated by an excess flow check valve which had been installed at the hydrogen bank. Licensee personnel stated that the missing supports identified on this line would be replaced, and a section of the line replaced to restore it to its design configuration. This item is closed.

b. (Open) (81-42-01) Drawing Reverification Program

The inspector reviewed the licensee's system for listing deficiencies discovered during field verification of non-safety-related piping drawings. The inspector stated that the listing developed provided an adequate method to ensure that each error identified on the marked up master drawings was corrected. This item remains open.

No items of noncompliance or deviations were identified.

9. Exit Interview

The inspector met with licensee representatives (denoted in Paragraph 1) on December 22, 1982, to summarize the scope and findings of this inspection.