U. S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

REGION V

Report No. 50-206/79-17

Docket No. 50-206 License No. DPR-13 Safeguards Group ________

Licensee: Southern California Edison Company
2244 Walnut Grove Avenue
Rosemead, California 91770

Facility Name: San Onofre Unit 1

Inspection at: San Onofre

Inspection conducted: December 10-13, 1979

Inspectors: [signature] January 18, 1980
for L. F. Miller, Reactor Inspector — Date Signed

[signature] January 18, 1980
for A. Johnson, Reactor Inspector — Date Signed

[signature] January 18, 1980
for A. Horn, Reactor Inspector — Date Signed
for A. Chaffee, Reactor Inspector

Approved By: [signature] January 18, 1980
B. H. Faulkenberry, Chief, Reactor Projects Section #2, Reactor Operations and Nuclear Support Branch — Date Signed

Summary:

Inspection on December 10-13, 1979 (Report No. ~~50-206/79-17~~)

Areas Inspected: Routine, unannounced inspection of quality assurance program; onsite review; procedures; plant operations; plant tour; and licensee's responses to IE Bulletins and Circulars. The inspection involved 72 inspector-hours by four NRC inspectors.

Results: Of the six areas inspected, no items of noncompliance or deviations were identified in five areas; one apparent item of noncompliance (deficiency - failure to report a degraded mode of operation - paragraph 2) was identified in one area.

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DETAILS

1. Persons Contacted

J. Curran, Plant Manager
*G. Morgan, Superintendent, Units 2 and 3
*J. Dunn, Project QA Supervisor
M. Wharton, Supervising Engineer, Unit 1
*S. Scholl, Associate Nuclear Engineer, Unit 1
B. Curtis, Plant Supervising Engineer
*J. Tate, Supervisor, Plant Operations
*W. Frick, Nuclear Engineer

The inspectors also interviewed several other licensee employees including licensed operators.

*Denotes those present at the exit interview.

2. Review of Plant Operations

The inspectors reviewed the shift logs and operating records, including the following:

a. "Operator's Routine Test Check-Offs" and "Control Room Daily Log Sheets" for November 1-10, 1979 were completed in accordance with regulatory requirements.

b. Watch Engineer's and Control Operator's logs for November 1-10, 1979 appeared to provide sufficient detail to communicate plant status and significant events, including the November 7, 1979 480V Bus No. 1 failure. Log reviews by the operating staff during this period also appeared complete.

c. Station Incident Reports 79-35 through 79-39 were reviewed. These reports were reviewed by the licensee in accordance with regulatory requirements except for Station Incident Report 79-39, dated October 11, 1979. This report noted that at 0255 the loop "C" Tave channel failed low, causing the control rods to begin moving out, changing the pressurizer level control level, and changing the channel 3 variable low pressure trip setpoint to an erroneously low value. The operating logs for this date indicated that the control operator immediately took manual action to trip the affected channel and restore the degree of redundancy required by Technical Specification 3.5.1.B. For the period from the failure of the Tave channel until the operator manually tripped the affected low pressurizer pressure channel, the facility was in a degraded mode, with less instrument redundancy than that

required by Column II of Table 3.5.1 of the Technical Specifications. Contrary to Technical Specification 6.9.2.b(2) this condition was not reported within 30 days. (79-17-01)

This is an apparent item of noncompliance at the deficiency level.

3. Plant Tour

The inspectors conducted a tour of the facility during which the following conditions were observed:

a. Licensee monitoring of control room instrumentation was found to be in accordance with the licensee's regulatory requirements and commitments. The inspectors observed that in some instances following a reactor startup the plant did not appear to be in "steady state conditions" when OI S-3-3.13 "Reactor Power Calculations" was performed, to set the power range gain signals, as required by the procedure. For example, on April 9 at 2:20 p.m. and on April 22, 1979 at 2:30 p.m. reactor power as recorded on NLR 1200-3 ramped steadily upward throughout the heat balance procedure. A licensee representative stated that this procedure would be revised to provide more detailed guidance to the operators regarding 1) what "steady state conditions" are, and 2) what amount of change in nuclear power gain settings can be made without supervisory review or a calculation check. (79-17-02)

b. Radiation controls observed were properly established.

c. No significant fluid or steam leaks were observed.

d. No abnormal pipe vibrations were observed. The inspectors observed that considerable new pipe was being fitted up by contractor personnel, reportedly as part of the TMI lessons learned commitments made by the licensee. Several hydraulic snubbers were checked for proper oil level and freedom of motion, and they appeared to be operable.

e. Selected valves in the refueling water supply system were verified to be correctly positioned.

f. The control room was manned in accordance with the requirements of 10 CFR 50.54(v), the facility Technical Specifications and IE Bulletin 79-06C. Control room operators and supervisors appeared knowledgeable about the reasons for selected annunciators. The shift turnover was observed, and appeared adequate to ensure system status continuity.

g. Fire extinguishers and alarms, fire watches and no smoking areas in the vicinity of the lube oil reservoirs and 4.16 KV room were observed. No discrepancies were identified. Selected fire watches were interviewed and they appeared to be both knowledgeable and conscientious about their responsibilities.

h. The battery room ventilation system was observed to be operable.

No items of noncompliance or deviations were identified.

4. Independent Inspection

The inspectors observed in the December 7, 1979 edition of "Edison News", an informal publication of Southern California Edison Company that the offsite organization of the company would be changed as of January 1, 1980. A new Department of Nuclear Engineering and Operations was to be formed from the nuclear functions currently assigned in the Engineering and Construction Department and the nuclear functions currently assigned in the Power Supply Department, according to this article. Further, the article stated that the Vice-President for this department, the Vice-President for the Advanced Engineering Department, and the Vice-President for the Engineering and Construction Department would report to the Executive-Vice President. A licensee representative confirmed this plan and stated his understanding that this change had been or would be submitted to the NRC as a Technical Specification change. The inspector stated that this reorganization would be reviewed further at a subsequent inspection. (79-17-03)

No items of noncompliance or deviations were identified.

5. Bulletins

The licensees responses to several IE Bulletins were reviewed as follows:

a. (Open) Bulletin 79-14

The inspectors reviewed the current status of the licensee's response. A licensee representative stated that the results of the licensee's inspections of inaccessible supports would be made by July 1, 1980, provided the facility returned to power in early June following its scheduled refueling outage. He also agreed to include in SCE's December 21, 1979 report a summary of the portion of the Bechtel-SCE contract which described the work which was done in producing those drawings which SCE has designated as "certified as-built."

This Bulletin remains open pending completion of the required licensee inspections and their review by the NRC.

b. (Open) Bulletin 79-17

The licensee's response appeared adequate to the inspectors. However, to clarify that response, licensee personnel stated that a system-by-system count of ultrasonic inspections which were performed would be done to confirm their opinion that a minimum of 10% of the affected welds in each system were inspected. In addition, the inspectors reminded licensee personnel that the licensee had agreed during inspection 79-14 to include their assessment of the effect of the near-ocean environment on exposed piping. A licensee representative confirmed this commitment and stated that the work, which was still in progress, would be reported when complete.

c. (Open) Bulletin 79-13 - Cracking in Feedwater System Piping

The regional based and resident construction inspector observed the actions taken by the licensee in response to notifications of feedwater system piping cracks prior to issuance of IE Bulletin 79-13. There observations are reported in Inspection Report 50-206/79-10.

The licensee's written response to Bulletin 79-13 was received on time and includes the information required to be reported. The licensee's only exception is the requirement to volumetrically examine all feedwater line welds up to the first piping support or snubber and high stress points in containment. This requirement is not applicable to this licensee since repairs and examinations were completed prior to issuance of bulletin 79-13.

The licensee's written response includes adequate corrective action commitments based on information presented in the bulletin and the licensee's response. The licensee has commited to perform the volumetric and visual examinations required in items 2a and 2c of bulletin 79-13 rev. 1 at the next refueling outage, currently scheduled for the second quarter of 1980. Revision 2 to bulletin 79-13, paragraph 2a more specifically defines the areas to be volumetrically examined. (79-17-04)

The inspector reviewed the revisions to the licensee's operating procedures S-3.5.20 "SIG High Energy Pipe Break", S-3-5.7 "Abnormal SIG Water Level", and S-3-5.23, "Reactor Coolant System Leak Procedure", and verified that these revisions adequately addressed the requirements of the Bulletin.

This bulletin will remain open until completion and evaluation of examination required in paragraphs 2a and 2c of the bulletin.

d. (Open) Bulletin 79-24

The inspector reviewed the licensee's contracted study for the San Onofre Site. This study predicted statistically that in forty years of operation San Onofre would experience 240 hours of subfreezing weather, with at least three periods where temperatures would be below freezing for as long as seven hours. The lowest temperature anticipated by this study was about 25°F. Licensee personnel stated that the operating procedures would be revised to include provisions for ensuring that systems remained operable under these conditions. The inspector stated that this approach would be evaluated after the revised procedures had been reviewed at a subsequent inspection.

e. (Closed) Bulletin 79-21

The inspectors reviewed the licensee's response and the revised high energy line break procedure, S-3-5.20. The inspector stated that the licensee's revised procedures adequately complete the actions required by this Bulletin.

f. (Open) Circular 79-05

Licensee personnel confirmed that additional review by the station engineering staff was being conducted regarding the possibility of moisture incursion in stranded wire conductors. The inspector agreed that such a review seemed appropriate and would be reviewed at a subsequent inspection.

No items of noncompliance or deviations were identified.

6. Procedures

The following procedures were verified to have been reviewed and approved in accordance with the Technical Specifications:

S-3-1.1	Plant startup from cold conditions to minimum load.
S-3-2.24	Two loop operation of reactor coolant system
S-3-1.10	Seal water system and reactor coolant pump startup
S-3-2.10	Startup, normal operation, shutdown of the component cooling system
S-3-2.20	Sphere enclosure building ventilation system
S-11-1	Service water system
S-3-2.22	Controlled area and sphere atmospheric control system
S-6-6	Procedure for placing main transformer and auxiliary transformers 'A' and 'B' in service
S-3-5.8	Loss of condenser vacuum
S-3-5.6	Loss of containment sphere integrity
S-3-5.12	Reactor control and protection system trouble

S-3-5.21 Stuck control rod
S-3-5.27 Earthquake
S-I-1.64 Reactor Coolant Pump Maintenance
S-M-4 Maintenance of Transformers
S-I-1.14 General Maintenance Procedure
S-I-1.18 Battery Maintenance
S-I-1.14 Inspection, Repair, and Testing of Pressurizer Relief Valves 532 and 533.
S-M-101 Rod Control System Maintenance Unit 1
S-O-9 Control of Temporary Modifications
S-A-109 Station Documents - Preparation, Revision and Review

The inspectors examined two Quality Assurance audits (501-16-79 & 501-87-79) that identified deficiencies; corrective actions for these deficiencies have been initiated by the licensee. To meet requirements of the facility Technical Specifications to comply with ANSI 18.7-1976; the licensee has contracted with NUS Corporation to review and rewrite all of the procedures. Also, the licensee has committed to have all emergency procedures related to TMI findings completed by January 1, 1980. Others will be completed by November, 1980. Further, the licensee's staff is reviewing procedures as committments to other TMI related findings.

The inspectors noted that it was not clear in the licensee's administrative procedures what constituted adequate, periodic review of procedures and forms. The licensee committed to establishing criteria or guidelines for procedure and form review by the end of the spring refueling outage (est. April 1980). (79-17-05)

The inspectors also noted that procedures covering rod/rod control abnormalities or emergencies did not clearly define inoperable rods. Technical Specification 3.5.2 D. states that "no more than one inoperative rod shall be permitted during critical operation". The licensee committed to reviewing their procedures to clarify circumstances applicable to this specification. (79-17-06)

No items of noncompliance or deviations were identified.

7. QA Program

The inspector examined changes made to the QA program manual during 1979. The changes update the program by changing titles of personnel to be consistent with reorganizations as a result of units no. 2 and no. 3 nearing the preoperational phase of construction. In addition the changes clarified certain responsibilities and requirements. I.e., the reporting requirements of 10 CFR part 21 have been specifically addressed in the pertinent procedures. The inspector verified from licensee records and discussion with personnel for implementing the changes that the changes had been incorporated in the appropriate station instructions and that the responsible personnel were knowledgeable of the changes.

No items of noncompliance or deviations were identified.

8. On-Site Review Committee

The inspector examined the records relative to the activities performed by the onsite safety review committee during the period of July 1978 thru November, 1979 and discussed the committee's activities with the responsible licensee personnel. The inspectors examination included:

a. Charter of the Committee
b. Plant Modifications
c. Proposed Changes to Technical Specifications
d. Reportable Occurrences
e. Noncompliance items and Corrective Actions Proposed and Taken
f. Meeting Minutes

No items of noncompliance or deviations were identified.

9. Exit Interview

The inspectors met with licensee representatives (denoted in Paragraph 1) on December 13, 1979 to summarize the purpose, scope and the findings of the inspection.