U. S. NUCLEAR REGULATORY COMMISSION

REGION V

Report Nos. 50-206/85-21 and 50-361/85-20

Docket Nos. 50-206 and 50-361

License Nos. DPR-13 and NPF-10

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: June 10-14, 1985

Inspector: Kenneth D. Ivey, Jr. 7/01/85
K. Ivey, Jr., Reactor Inspector Date Signed

Approved By: Talbert Young Jr. 7-2-85
T. Young, Jr., Chief, Engineering Section Date Signed

Summary:

Inspection between June 10-14, 1985 (Report Nos. 50-206/85-21 and 50-361/85-20)

Areas Inspected: Routine inspection of the implementation of selected TMI Action Items. This inspection effort required 35.5 hours by one regional inspector.

Results: No violations or deviations were identified.

DETAILS

1. Persons Contacted

*G. T. Gibson, Compliance Supervisor
J. Walderhaug, Computer Engineer
*P. R. King, Operations Quality Assurance Supervisor
D. Barney, Unit 1 Shift Superintendent
*C. Kergis, Lead Compliance Engineer
*M. Freedman, Compliance Engineer
W. McGhee, Unit 1 Coordination Supervisor
*J. Grosshart, Quality Assurance Engineer
M. Kirby, Unit 1 Operator Training Manager
D. Wilcockson, Unit 1 Operations Instructor

The inspector also talked with other licensee personnel during the inspection. These included plant staff engineers and document control personnel.

*Denotes personnel present during the exit interview on June 14, 1985.

2. TMI Action Plan Items

A. Unit 1

(1) (Closed) I.A.1.3 Shift Manning - (Sub-item 2.A, Minimum Shift Crew)

Summary: NUREG-0737 requires that licensees of operating plants include in their administrative procedures provisions governing required shift staffing and movement of key individuals about the plant.

Findings and Conclusion: In a letter dated February 16, 1983 (Baskin, SCE to Crutchfield, NRC), the licensee stated that license testing was completed successfully and the current shift manpower is in accordance with commitments. The licensee utilizes five full shift crews with a contingency to accomodate the loss of personnel. In NRC Inspection Report No. 50-206/84-20, the inspectors found that procedures had been revised to reflect minimum shift manning requirements and proposed Technical Specification Change No. 130 was submitted for NRC approval.

Change No. 130 is presently undergoing review by the NRC. The licensee has taken appropriate action to comply with the requirements of the TMI Action Plan. This item is closed for Unit 1.

No violations or deviations were identified.

(2) (Closed) II.E.1.1 Auxiliary Feedwater System Evaluation - (Sub-item 1, Short Term System Modifications)

Summary: Per NUREG-0737, the NRC Office of Nuclear Reactor Regulation requires that all operating plant licensees reevaluate their PWR plant auxiliary feedwater system and implement recommendations for improving system reliability.

Findings and Conclusion: In a letter dated October 22, 1982 (Crutchfield, NRC to Dietch, SCE), the NRC found the response to recommendations on this item to be acceptable. NRC Regional Inspectors, in IE Report No. 50-206/84-20, found that the licensee had taken the appropriate actions to comply with the TMI Action Plan Requirements. Therefore, this item is closed for Unit 1.

No violations or deviations were identified.

(3) II.F.1 "Accident Monitoring"

The inspector verified the licensee's actions taken in response to the following NUREG-0737 sub-items are as documented in correspondence between the licensee and the NRC.

Areas of inspection included:

- Review of design changes to ensure that modifications were reviewed, approved, inspected, and tested in accordance with established procedures.
- Review of as-built drawings and procedures (including control room copies) to ensure that revisions were incorporated to reflect modifications made to the systems.
- Visual verification of control room indication for the monitors located on panel C09.
- Discussions with training personnel and review of individual training histories to ensure that applicable training was given for the modifications and has been incorporated into the training program.

Sub-item 4 (Closed) - Containment Pressure Monitor

Summary: NUREG-0737 requires that a continuous indication of containment pressure be provided in the control room of each operating reactor.

Findings and Conclusion:

By letter dated August 3, 1984 (Paulson, NRC to Baskin, SCE), the NRC accepted the licensee's proposal for this item. The proposal was to modify the existing containment pressure monitor computer program to record the highest reading each

minute. This would give the program the ability to trend containment pressure for short transients.

The modification was performed in accordance with Software Modification No. FOX-3/84-0002 and completed October 21, 1984. The inspector reviewed the modification package which included; the reviewed and approved modification, 10 CFR 50.59 review, and post-modification test plan and results. The inspector visually verified operation of the system on the FOX-3 computer located in the Technical Support Center (adjacent to the control room). This modification appears to satisfy NUREG-0737 requirements and closes this item for Unit 1.

Sub-item 5 (Closed) - Containment Water Level Monitor

Summary: NUREG-0737 requires that a continuous indication of containment water level be provided in the control room for all plants.

Findings and Conclusion: By letter dated April 6, 1984 (Crutchfield, NRC to Baskin, SCE), the NRC accepted the licensee's proposal for satisfying this item. The proposal involved installing a new containment sump water level indication system and a new containment water level indication system. Both systems are powered by Class 1E power supply and designed to meet Regulatory Guide 1.75 separation criteria. These systems replaced the existing water level systems used in the plant.

The new installation was performed in accordance with Design Change (DC) No. 80-35 and completed May 8, 1985. The change is presently being reviewed by configuration control to provide final verification of document changes. The inspector reviewed the DC package for completeness and reviewed associated documentation including; turnover Packages, 10 CFR 50.59 reviews, work permits, calibration records, drawings, and pre-operational test results. These installations appear to satisfy NUREG-0737 requirements and closes this item for Unit 1.

Sub-item 6 (Closed) - Containment Hydrogen Monitor

Summary: NUREG-0737 requires that a continuous indication of hydrogen concentration in the containment atmosphere be provided in the control room.

Findings and Conclusion: By letter dated April 6, 1984 (Crutchfield, NRC to Baskin, SCE), the NRC accepted the licensee's proposal for satisfying this item. The proposal included installation of a new containment hydrogen monitoring system to provide redundant hydrogen sensing, analysis, and indication. All instrumentation and controls are separate and independent.

The installation was performed in accordance with Design Change (DC) No. 80-34 and completed March 18, 1985. The DC is presently undergoing Configuration Review to provide the assurance that all affected design documents and procedures reflect the new installation. The inspector reviewed the DC package for completeness and reviewed associated documentation including; turnover packages, drawings, procedures, system test reports, pre-operational calibration test results, and configuration control reports. This DC appears to satisfy NUREG-0737 requirements and closes this item for Unit 1.

No violations or deviations were identified.

(4) (Open) III.D.3.4 Control Room Habitability

Summary: NUREG-0737 requires that licensees assure that control room operators will be adequately protected against the effects of accidental release of toxic and radioactive gases and that the nuclear power plant can be safely operated or shut down under design basis accident conditions.

Findings and Conclusion: The licensee has performed a risk assessment for a loss of control room habitability resulting in the conclusion that no modifications to the current control room HVAC and habitability systems are appropriate. Notwithstanding the risk assessment, the licensee has committed to perform a review of upgrades that can reasonably be implemented to enhance the reliability of the control room HVAC. The present scheduled completion date is July 19, 1985. This item will be examined further during a future inspection.

No violations or deviations were identified.

B. Unit 2

(1) II.F.2 "Instrumentation for Detection of Inadequate Core Cooling"

Sub-item 4 (Closed) - Installation of Additional Instrumentation

Summary: NUREG-0737 requires the installation of additional instrumentation or controls (primary or backup) to supplement existing instrumentation in order to provide an unambiguous, easy-to-interpret indication of inadequate core cooling (ICC).

Findings and Conclusion: The licensee has committed to implement a final ICC system which meets the requirements delineated in NUREG-0737. By a letter dated September 26, 1984 (Medford, SCE to Knighton, NRC), the licensee stated that the modifications to satisfy the requirements for this item would be installed at Unit 2 prior to startup following the first Unit 2 refueling outage. This was also made a Unit 2 license condition (No. 2.C(19).5). The modification included

installation of a Heated Junction Thermocouple (HJTC) system and upgrading the incore detector assemblies (core exit thermocouples, etc).

In a letter dated May 29, 1985 (Medford, SCE to Knighton, NRC), the licensee stated that the Unit 2 HJTC system was installed with all associated instrumentation calibrated and operable on February 27, 1985. The licensee considers all outstanding commitments related to the HJTC system at San Onofre Unit 2 to be complete. The Unit 2 first refueling outage ended on April 17, 1985.

The modification was performed in accordance with Proposed Facility Changes (PFC) No. 2/3-83-431 and No. 2/3-83-432. Work has been completed on PFC No. 2/3-83-431 and it is presently undergoing Final Review by Station Engineering for turnover to Configuration Control. PFC No. 2/3-83-432 has been completed and is undergoing Configuration Review for final closeout. The inspector reviewed the PFCs and their associated documentation including: turnover packages, configuration reports, safety evaluations, pre-operational test records, and document change lists. This item is closed for Unit 2.

No violations or deviations were identified.

3. Exit Interview

On June 14, 1985, an exit interview was held with the licensee representatives identified in paragraph 1. The inspector summarized the scope of the inspection and findings as described in this report.