U. S. NUCLEAR REGULATORY COMMISSION

## REGION V

Report No.	50-361/82-39 50-362/82-31		
Docket No.	50-361: 50-362	Construction Permit No. CPPR-9 License No. NPF-10. NPF-15	8 Safeguards Group
Licensee:	Southern California E P. O. Box 800 2244 Walnut Grove Ave	dison (SCE) Company	
	Rosemead. California	91770	
Facility Na	ame: <u>Rosemead</u> , Califo	rnia 91770	
Inspection	at: <u>San Onofre - Uni</u>	t 2 and Unit 3	
Inspection	conducted: October 26	through November 8, 1982	
Inspectors	: <u>A. Chaffee</u> , Senior Re	for sident Inspector, Unit 2	Date Signed
			Date Signed
Approved b	y: <u>P. Stewan</u> D. Kirsch, Chief, Rea Peactor Projects Bran	t for ctor Projects Section No. 3 ch No. 2	12-7-87 Date Signed
Summary:			

# Inspection on October 26, 1982 through November 28, 1982 (Report Nos. 50-361/ 82-39, 50-362/82-31)

Areas Inspected: Routine, unannounced resident inspection of the Unit 2 and 3 Operations and Startup Test Programs including the following areas: followup on inspector identified items; operational safety verification; monthly surveillance observations; monthly maintenance observations (Unit 2); Review of Plant Operations (Unit 2); Power Ascension Test Witnessing (Unit 2); Transient Test Witnessing (Unit 2); Initial Fuel Load Witnessing (Unit 3); Plant Trips (Unit 2); and independent inspection effort.

Routine, unannounced resident inspection of the Unit 3 Preoperational Test Program including the following areas: follow-up on inspector identified items; plant tour; and TMI Action Items.

This inspection involved 63 inspector hours on Unit 2 and 47 inspector hours on Unit 3 for a total of 110 hours by one NRC inspector.

Results: Of the 13 areas examined, one apparent item of noncompliance was identified (failure to properly administer operator overtime - paragraph 11, severity level 4).

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RV Form 219 (2)

# DETAILS

# 1. Persons Contacted

H. Ray, Station Manager \*B. Katz, Technical Manager \*H. Morgan, Operations Manager P. Knapp, Health Physics Manager \*J. Wambold, Maintenance Manager M. Short, Project Support Manager \*W. Moody, Deputy Station Manager \*P. Croy, Compliance and Configuration Manager A. Talley, Material and Administrative Services Manager F. Eller, Security Manager D. McCloskey, Emergency Preparedness Manager \*D. Schone, Units 2/3 Project Quality Assurance Supervisor \*P. King, Units 2/3 Operations Quality Assurance Supervisor \*C. Horton, Units 2/3 Startup Quality Assurance Supervisor \*C. Kergis, Lead Quality Assurance Engineer, Unit 3 \*V. Fischer, Superintendent of Plant Coordination \*G. Patterson, Startup Quality Assurance Engineer \*K. O'Conner, Unit 3 Startup Supervisor \*M. Speer, Compliance Engineer

The inspectors also interviewed and talked with other licensee employees during the course of the inspection; these included shift supervisors; control room operators, startup engineers, and quality assurance personnel.

\*Denotes those persons attending the exit interview on November 19, 1982.

Also present at the exit interview were M. Mendonca, Reactor Inspector and P. Stewart, Reactor Inspector.

- 2. Follow-up on Inspector Identified Problems (Units 2 and 3)
  - a. (Closed) (82-30-02) Use of out of date annunciator procedures in the Control Room

The inspector previously found that eight of twenty three (non-controlled pink) annunciator procedures were several months out of date. These uncontrolled procedures apparently were for operator use in that they were located on the control room panels in front of the applicable annunciator panel. The licensee in response to this situation removed the pink copies and installed controlled white copies. Thus, adequate document control appears to have been effected. The inspector did not observe any negative safety impact resulting from the existence of the out-of-date procedures. No items of noncompliance or deviations were noted.

### 3. Operational Safety Verification (Units 2 and 3)

The inspector observed control room operations, reviewed applicable logs and interviewed control room operators during the inspection period. The inspector verified the operability of selected emergency systems, reviewed tagout records and verified proper return to service of affected components. Tours of Unit 3 (containment, safety equipment building, diesel generator building and turbine building) the common control building and radwaste building and the Unit 2 turbine building were conducted to observe plant equipment conditions. The tours were conducted to inspect for potential fire hazards, fluid leaks, and excessive vibrations and to verify that maintenance requests had been initiated for equipment in need of maintenance. The inspector, by observation and direct interview, verified that selected positions of the physical security plan was being implemented in accordance with the station security plan.

The inspector observed plant housekeeping/cleanliness conditions and verified implementation of radiation protection controls. These reviews and observations were conducted to verify that facility operations were in conformance with the requirements established under technical specifications, 10 CFR, and administrative procedures.

No items of noncompliance or deviations were identified.

## 4. Monthly Surveillance Observation (Units 2 and 3)

The inspector observed a surveillance required by technical specifications (Core Operating Limit Supervisory System is out of service testing) and verified that: testing was performed in accordance with adequate procedures; that test instrumentation was calibrated; that limiting conditions for operation were met; that removal and restoration of the affected components were accomplished; that test results conformed with technical specification and procedure requirements; test results were reviewed by personnel other than the individual directing the test; and that any deficiencies identified during the testing were properly reviewed and resolved by appropriate management personnel.

The inspector also witnessed portions of the following test activities: S023-3-3.25, Once a shift surveillance, (Modes 1-4); and S023-3-3.22 Reactor Pre-refueling Surveillance.

No items of noncompliance or deviations were identified.

#### 5. Monthly Maintenance Observation (Unit 2)

Station maintenance activities of components listed below were observed and/or reviewed to ascertain that they were conducted in accordance with approved procedures, regulatory guides, industry codes and standards, and in conformance with technical specifications. a) Feed regulating valve 2FV1121 operator repair

b) Foxborro 200 power supply plug mounting repair

No items of noncompliance or deviations were identified.

### 6. Review of Plant Operations/Onsite Review Committee (Unit 2)

The inspector examined the onsite review functions conducted during the period of February 16, 1982 to October, 1982 to verify conformance with technical specifications and other regulatory requirements. This examination included: review group membership and qualifications; review group meeting frequency and quorum; and, verification that review of certain plant activities, required by technical specifications (including proposed technical specification changes, noncompliance items and corrective action, proposed facility and procedure changes and proposed tests and experiments conducted per 10 CFR 50.59) was performed.

No items of noncompliance or deviations were identified.

### 7. Witness of 20% Power Plateau Power Ascension Testing (Unit 2)

The inspectors observed selected portions of the following tests:

NSSS Calorimetric	2ST-344-10
Subchannel Gain Adjustments	2ST-344-12

During the performance of these tests, the inspector verified, on a selected basis by observation and discussion with licensee personnel, that those portions of the tests observed were conducted using an approved procedure, test equipment was properly calibrated, test data were collected and recorded, and that the test adequately demonstrated conformance with applicable acceptance criteria.

No items of noncompliance or deviations were identified.

8. Witness of Transient Tests (Unit 2)

The inspector observed selected portions of transient test 2PA-401-01 (20% main control board Rx trip).

During the performance of this test, the inspector verified, on a selected basis by observation and discussion with licensee personnel, that those portions of the test observed were conducted using an approved procedure, test equipment was properly calibrated, test data were collected and recorded, and that the test adequately demonstrated conformance with applicable acceptance criteria.

No items of noncompliance or deviations were identified.

## 9. Witness of Initial Fuel Load (Unit 3)

The inspector observed the licensee's performance of initial fuel loading in accordance with procedure 3FL-101-01. Based on these observations, the inspector established the following:

- a. The licensee appeared to have performed these activities in accordance with regulatory requirements.
- b. The nuclear instrumentation required for this procedure appeared to have been properly calibrated and proper operation was demonstrated.
- c. Direct communication was established between the control room and the refueling level.
- d. The staffing requirements for this activity appeared to have been met.
- e. A current procedure was utilized.
- f. Inverse Multiplication Plots were being property intained.
- g. The boron concentration appeared to be properly miled and analyzed.

Overall, this activity appeared to proceed very smorthy with few problems. Initial fuel load commenced on November 15 and was complete on November 21, 1982.

No items of noncompliance or deviations were identive and

# 10. Plant Trips (Unit 2)

Following the plant trips on November 10, 11, 13 (two trips) and 17, the inspector ascertained the status of the reactor and safety systems by observation of control room indicators and discussions with licensee personnel concerning plant parameters, emergency system status and reactor coolant chemistry. The inspector verified the establishment of proper communications and reviewed the corrective actions taken by the licensee.

All systems responded as expected and the plant was subsequently returned to operation. The plant remained in Mode 5, while recovering from out of specification steam generator chemistry, for an extended period following the trip on November 17, 1982.

No items of noncompliance or deviations were identified.

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# 11. Independent Inspection (Units 2 and 3)

# a. Use and Approval of Operator Overtime

The inspector reviewed operator working hours on several occasions since the issuance of the Unit 2 operating licensee on February 16, 1982. The following is a summary of operator working hours since licensing of Unit 2.

Month	Average Operator Hours Per Week	Licensed Non Operators Licensed SHIFT SCHEDULE			
Feb.	(Data not reviewed)				
March	60 hrs.	3 Watch Sections	5 mm		
April	60 hrs.	12 hr. Watches 12 hr. Watches	Same		
May	60 hrs.	12 hr. Watches	Same		
June	58 hrs.	12 hr. Watches	Same		
July	50 hrs.	4 Watch Sections	3 Watch Suctions		
August	48 hrs.	8 hr. Watches 8 hr. Watches	12 hr. Watches 12 hr. Watches		
September	48 hrs.	5 Watch Sections	4 Watch Sections		
October	47 hrs.	8 hr. Watches 8 hr. Watches	8 hr. Watches 8 hr. Watches		

The inspector has also reviewed during the current and previous inspection implementation of operator overtime for conformance with condition 2.C(19)b (Shift Manning) of Unit 2 License No. NPF-10. The following is a summary of this review:

COUDDENCE

## OVERT ME GUIDANCE DEVIAIONS

MONTH							ULLURKENLES			
	CRI	TERIA					With Proper Documented Management Authorization	Without Proper Documented Management Authorization		
Feb.	Data not reviewed									
March	Exc	eeded	72 1	hrs. i	in seve	en day	32*	97*		
April		н	н	н	u	H	19*	0		
May	н	п	н	п	н	н	4*	0		
June	н	н	е	н	п	н	1*	0		

### OVERTIME GUIDANCE DEVIATIONS

MONTH							OCCORRENCES			
	CRITERIA						With Proper Documented Management Authorization		Without Proper Documented Managerant Authorization	
July	Exceeded period		72 hrs. in		n sev	ven day	6*		1	
August		н	п	п	п	u	3*		1	
September	н	н		н	н	u	1*		0	
October		0	н	n .	в	и	10*	(authori not ve	zation documentation rified)	
September		16	hr.	shift			0		1	
September		24	hr.	in 48 H	nr. p	period	0		2	

OCCUDDENCES

\*Some of these occurrences actually occurred on Unit 3, thus the number of events associated with Unit 2 are somewhat less.

Unit 2 License, NPF-10, condition 2.C(19)b (Shift Manning) states:

"SCE shall develop and implement administrative procedures to limit the working hours of individuals of the nuclear power plant operating staff who are responsible for manipulating plant controls or for adjusting on-line systems and equipment affecting plant safety which would have an immediate impact on public health and safety.

Adequate shift coverage shall be maintained without routine heavy use of overtime. However, in the event that unforeseen problems require substantial amounts of overtime to be used, the following guidelines shall be followed:

- 1. An individual shall not be permitted to work more than 16 hours straight (excluding shift turnover time).
- An individual shall not be permitted to work more than 16 hours in any 24-hour period, nor more than 24 hours in any 48-hour period, nor more than 72 hours in any seven day period (all excluding shift turnover time).
- 3. A break of at least eight hours shall be allowed between work periods (including shift turnover time).

 The use of overtime shall be considered on an individual basis and not for the entire staff on a shift.

Any deviation from the above guidelines shall be authorized by the station manager, his deputy, the operations manager, or higher levels of management, in accordance with established procedures and with documentation of the basis for granting the deviation. Controls shall be included in the procedures such that individual overtime will be reviewed monthly by the station manager or his designee to assure that excessive hours have not been assigned. Routine deviation from the above guidelines is not authorized."

Previous reviews of operator working hours have resulted in two Notices of Violation (One level IV, on April 23, 1982 for the 97\* non-approved o wrime occurrences in March and one level V on November 8, 1982 for the two occurrences in the July, August time frame). The current review identified three occurrences of non-approved overtime use during the Septembe, time frame. These occurrences are categorized as a level IV violation. The most recent occurrence of non-approved overtime use appears to have resulted from the following failures in the licensee's tracking system.

- (1) The licensee's system for keeping track of operator hours relied upon scheduled hours rather than hours actually worked. Since operators sometimes work longer than scheduled, actual hours worked were apparently not identified to management. This resulted in three cases where overtime deviations occurred without appropriate management approval. This condition was corrected on 11/1/82 by Special Order 82-38.
- (2) The licensee's program also appears inadequate in the implementation of the overtime guidance criterion of not exceeding 24 hours in a 48 hour period. This was due, in part, to the licensee's reviewing of only calendar day periods rather than any 48 hour period. This item was corrected on the interim basis by holding a training session for the overtime reviewers to make them aware of the need to look at any 48 hour period. The licensee is further developing an operations procedure to consolidate and formalize the operations department overtime control program. This procedure will be published by January 3, 1983. (50-361/82-39-01)

### b. Temporary Modification Log

The Inspector reviewed the Licensee's Temporary Modification Log for conformance to the licens e's operating instruction S023-0-16 (Temporary Modification Control), revision 4, dated 7/13/82, and American National Standard N18.7-1976. The following discrepancies were identified during a review of 115 temporary modifications forms (TMFs) contained in the control room temporary modification logs.

- Fifteen TMFs were missing the "requesting department supervisor" review signature and dates.
- (2) Twenty-five of fifty-eight TMFs checked did not have applicable caution tags affixed in the control room to alert the operator to the existence of the temporary modification.
- (3) Eight TMFs did not have the nonconformance report conditional release status annotated when the equipment was declared operable.
- (4) Two TMFs were still open but the modification had been removed. These were both on non-safety related equipment.
- (5) Fourteen TMFs identified instances where systems appeared to be returned to service, but the TMFs did not reflect that they had been declared operable by the operator.

The fact that many of the above discrepancies are covered by other tracking systems (such as the Equipment Control and Nonconformance Reporting) mitigates the safety significance of this finding. The inspector considers that the lack of caution tags in the control room is of safety significance because it reduces the operators ability to maintain awareness of temporary modification status.

The licensee's Quality Assurance organization has initiated initially a daily check of new temporary modification forms versus caution tags being hung in the control room beginning 11/22/82.

The Station Operations Manager stated that the Temporary Modification instruction S023-0-16 would be revised as necessary in light of the above findings and the necessary additional manpower would be expended to upgrade the condition of the temporary modification log. The licensee committed to complete the above actions prior to January 20, 1983. (50-361/82-39-02)

No items of noncompliance or deviations were identified in this area.

## 12. Follow-up on Inspector Identified Items

The inspector examined the status of the licensee's program to maintain environmental qualification of safety equipment considering the licensee's August 23, 1982 letter to NRR and the August 30, 1982 letter from NRR to the licensee. Based on discussions with licensee personnel, it appears that the licensee understands the requirements in this area and sufficient work has been done to assure the continued development and implementation of the environmental qualification maintenance program within the time frame specified in the August 30, 1982 letter from NRR to SCE. This item is closed.

No items of noncompliance or deviations were identified.

## 13. Plant Tour

The inspector toured Unit 3 and found that plant housekeeping was adequate for fuel load. The inspector found that fire protection equipment was being upgraded in preparation for fuel load and that, emergency lighting installation and testing was essentially complete. The inspector also spot-checked the adequacy of various testing activities in progress. No items of noncompliance or deviations were identified.

## 14. TMI Action Items:

## a. <u>(Closed) II.F.2 - Instrumentation for Detection of Inadequate Core</u> Cooling

Based on discussions with licensee personnel and visual inspection and demonstration of the equipment involved, the inspector verified that the licensee had completed action to assure that:

- The subcooling monitors were modified to include the maximum unheated junction thermocouple temperature and the representative core exit thermocouple input.
- (2) Incore detector assemblies (core exit thermocouples and associated cabling) are environmentally qualified and have seismic and environmentally qualified Class IE connectors.
- (3) Qualified cables were installed for the core exit thermocouples.
- (4) The heated junction thermocouple probe and associated process instrumentation were installed.

No items of noncompliance or deviations were identified.

## b. (Closed) Item I.D.1 - Control Room Design Review

The inspector verified, by visual inspections and discussions with licensee personnel, that the following items were satisfactorily completed prior to fuel load.

- (1) Primary makeup pump flow controller labeling errors were corrected.
- (2) Technical specifications red arrow placement errors were corrected.
- (3) Safety Injection pattern recognition drawings were approved and placed in the control room.
- (4) Operator training on Unit 3 plant computer was satisfactory.

(5) HVAC panel SLI155 open/closed legend inconsistencies were corrected.

No items of noncompliance or deviations were identified.

# <u>(Closed) Item I.C.6 - Verification of Correct Performance of Operating</u> Activities

The inspector verified that all systems required to support fuel load were turned over to the operations staff before fuel load commenced and that the I.C.6 program initiated on Unit 2 had been implemented on Unit 3.

No items of noncompliance or deviations were identified.

## 15. Exit Interview - Units 2 and 3

The inspector met with licensee representatives (denoted in Paragraph 1) on November 19, 1982 and summarized the scope and results of the inspection. The licensee acknowledged the apparent violation of license conditions regarding the use and approval of operating personnel overtime (paragraph 11.a).