ENCLOSURE 2

U. S. NUCLEAR REGULATORY COMMISSION

REGION V

SYSTEMATIC ASSESSMENT OF LICENSEE PERFORMANCE

SOUTHERN CALIFORNIA EDISON COMPANY

SAN ONOFRE NUCLEAR GENERATING STATION UNITS 2 AND 3

AUGUST 18, 1982

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TABLES

ATTACHMENTS

I. Introduction

a. Purpose and Overview

The Systematic Assessment of Licensee Performance (SALP) is an integrated NRC staff effort to collect the available observations on an annual basis and evaluate licensee performance based on these observations with the objectives of improving the NRC Regulatory Program and Licensee performance.

The assessment period is July 1, 1981 through June 30, 1982. The previous assessment period was June 1, 1980 through June 30, 1981.

Evaluation criteria used during this assessment are discussed in Section III below. Each criterion was applied using the "Attributes for Assessment of Licensee Performance" contained in NRC Manual Chapter 0516.

b. SALP Attendees:

D. M. Sternberg, Chief, Reactor Projects Branch No. 1
D. F. Kirsch, Chief, Reactor Projects Section No. 3
H. Rood, Project Manager, Licensing Branch No. 3, Division of Licensing
F. Wenslawski, Chief, Reactor Radiation Protection Section
R. Fish, Emergency Preparedness Analyst
W. P. Mortensen, Physical Security Inspector
A. E. Chaffee, Resident Inspector, Operations, SONGS-2/3
J. H. Eckhardt, Reactor Inspector

Other NRC Attendees:

T. W. Bishop, Chief, Reactor Projects Branch No. 2
G. B. Zwetzig, Chief, Engineering Programs Section
W. J. Wagner, Reactor Inspector

c. Background

1. Licensee Activities - Unit 2

At the beginning of the assessment period, the facility was in the final stages of construction and well into the preoperational test program.

Unit 2 was granted a Facility Operating License, Number NPF-10, on February 16, 1982, authorizing operation up to five percent power. Initial fuel loading began on February 19, 1982, and was completed on February 28, 1982. Since February 28, 1982, the licensee has been engaged in post core load preoperational testing. The licensee has experienced a total delay of about 1.5 months in the post core load preoperational test program due to the following:

- Clean up of boric acid in containment due to water flowing out of an instrument port.
- Removal of the reactor vessel head to retrieve foreign material which was inadvertently dropped into the vessel by a workman through an instrument port.
- Repair of check valves which caused excessive reactor coolant system inter-system leakage.
- Repair of Auxiliary Feedwater pump motors to replace motor bearings.
- Evaluation and resolution of excessive instrument noise on safety-related instruments.
- Replacement of reactor coolant pump seal packages on all reactor coolant pumps.

The licensee has completed almost all of the required TMI modifications on schedule with only a few items remaining to be complete. The region has reason to believe that the remaining items will be completed on schedule.

2. Licensee Activities - Unit 3

The licensee is in the final phases of plant construction and is moving into the pre-core load preoperational test program. Construction of the unit is about 96 percent complete and the pre-core load preoperational test program is about 55 percent complete.

3. Inspection Activities

One NRC resident inspector was assigned to the Unit 2/3 site in December, 1981.

The total number of NRC inspection hours applied to Units 2 and 3 were 4,627 with 3,813 hours applied to Unit 2 and 814 hours applied to Unit 3. Distribution of inspection hours is shown in Table 1 for Unit 2 and Table 2 for Unit 3.

Tabulations of functional area inspection activity and enforcement action are contained in Table 3 (Construction Reactor - Unit 2), Table 4 (Construction Reactors - Unit 3), Table 5 (Operating Reactors - Unit 2) and Table 6 (Operating Reactors - Unit 3). Tables 7 and 8 provide descriptive amplification of Units 2 and 3 enforcement actions, respectively.

During the current assessment period no Civil Penalties, Orders or Confirmatory Action Letters were issued or imposed on Units 2 or 3 by the NRC.

II. Summary of Results

1. Construction Activities - Units 2 and 3

FUNCTIONAL AREA	CATEGORY 1	CATEGORY 2	CATEGORY 3
SOILS AND FOUNDATION	AREA NOT INSPECTED		
CONTAINMENT AND OTHER SAEFTY RELATED STRUCTURES	X		
PIPING SYSTEMS AND SUPPORTS - INCLUDES WELDING, NDE AND PRESERVICE		X	
SAFETY RELATED COMPONENTS - INCLUDES VESSEL, INTERNALS, AND PUMPS		X	
SUPPORT SYSTEMS - INCLUDES HVAC, RADWASTE, FIRE PROTECTION		X	
ELECTRICAL POWER SUPPLY AND DISTRIBUTION	X		
INSTRUMENTATION AND CONTROL SYSTEMS		X	
LICENSING ACTIVITIES		X	
QUALITY ASSURANCE	X		
DESIGN	X		
BULLETINS, 50.55(e) REPORTS, FOLLOWUP ITEMS AND INDEPENDENT INSPECTION	X		

2. Operations Activities - Units 2 and 3

	Functional AREA	CATEGORY 1	CATEGORY 2	CATEGORY 3
1.	Plant Operations		X	
2.	Radiological Controls			
	Radiation Protection			
	Radioactive Waste Management		X	
	Transportation			
	Effluent Control and Monitoring			
3.	Maintenance		X	
4.	Surveillance - includes Inservice & Preoperational Testing		X	
5.	Fire Protection		X	
6.	Emergency Preparedness	X		
7.	Security and Safeguards		X	
8.	Refueling - includes Initial Fuel Loading	X		
9.	Licensing Activities		X	
10.	Quality Assurance - Program & Implementation		X	
11.	TMI Action Items	X		

III. CRITERIA

The following evaluation criteria were applied to each functional area:

1. Management involvement in assuring quality.
2. Approach to resolution of technical issues from a safety standpoint.
3. Responsiveness to NRC initiatives.
4. Enforcement history.
5. Reporting and analysis of reportable events.
6. Staffing (including management).
7. Training effectiveness and qualification.

To provide consistent evaluation of licensee performance, attributes associated with each criterion and describing the characteristics applicable to Category 1, 2, and 3 performance were applied as discussed in NRC Manual Chapter 0516, Part II and Table 1.

The SALP Board conclusions were categorized as follows:

Category 1: Reduced NRC attention may be appropriate. Licensee management attention and involvement are aggressive and oriented toward nuclear safety; licensee resources are ample and effectively used such that a high level of performance with respect to operational safety or construction is being achieved.

Category 2: NRC attention should be maintained at normal levels. Licensee management attention and involvement are evident and are concerned with nuclear safety; licensee resources are adequate and are reasonably effective such that satisfactory performance with respect to operational safety or construction is being achieved.

Category 3: Both NRC and licensee attention should be increased. Licensee management attention or involvement is acceptable and considers nuclear safety, but weaknesses are evident; licensee resources appeared strained or not effectively used such that minimally satisfactory performance with respect to operational safety and construction is being achieved.

IV. Performance Analysis of Functional Areas - Construction

1. Soils and Foundations

This functional area was not examined during the current appraisal period due to completion of construction and inspection requirements.

2. Containment and Other Safety Related Structures

No items of noncompliance were identified in this functional area. All of the inspection hours (82) were expended on Unit 3 with the bulk of those pertaining to the containment structural integrity and integrated leak rate test. This test was conducted in a very satisfactory manner.

Conclusion

Category 1

Board Recommendation

Unit 3 inspection requirements in the areas of structural steel and containment penetration quality records review should be completed.

3. Piping Systems and Supports - Includes Welding, NDE, and Preservice Inspection

Forty-eight inspection hours (all on Unit 3) were utilized in this functional area, with no items of noncompliance being identified. However, one item of noncompliance concerning component supports (noted in paragraph 4, below) was identified. In general, component supports and piping supports are designed and constructed to similar requirements.

Conclusion

Category 2

Board Recommendation

Complete the Unit 3 inspection requirements for pipe supports, piping and pipe welding records review. Emphasis will be placed on verifying that as-built conditions conform to design.

4. Safety Related Components - Includes Vessel, Internals, and Pumps

A total of 33 inspection hours (8 on Unit 2 and 25 on Unit 3) were utilized in this functional area. One item of noncompliance (Severity Level IV) was identified in Unit 3. The as-built confirguration of the shutdown heat exchanger upper seismic restraints did not conform to drawing requirements. The licensee's corrective action appears satisfactory.

Conclusion

Category 2

Board Recommendation

Complete Unit 3 inspection requirements establishing conformance of as-built condition to design. Particular emphasis will placed on supports.

5. Support System - Includes HVAC, Radwaste, Fire Protection

A total of 84 inspection hours (all on Unit 2) were utilized in this functional area. One deviation was identified in the area of fire protection and involved failure to completely seal off air spaces around certain cable penetrations. Fire watches were placed at incomplete Unit 2 seals as a temporary corrective action.

Conclusion

Category 2

Board Recommendation

Complete fire protection inspection requirements for Unit 3.

6. Electrical Power Supply and Distribution

A total of 46 inspection hours (11 on Unit 2 and 35 on Unit 3) were utilized in this functional area. One item of noncompliance (Severity Level VI) was identified in Unit 2 and concerned unauthorized removal of a conduit support. No violations were identified in the areas of cable installation, terminations, distribution, electrical components, or separation.

Conclusion

Category 1

Board Recommendation

Complete Unit 3 inspection requirements for electrical cables and components.

7. Instrumentation and Control Systems

A total of 28 inspection hours (20 on Unit 2 and 8 on Unit 3) were utilized in this functional area. No items of noncompliance were identified.

Conclusion

Category 2

Board Recommendation

Complete Unit 3 inspection requirements for instrumentation cables and components emphasizing separation and testing.

8. Licensing Activities

See Attachment 1 for the NRR evaluation and conclusion.

9. Quality Assurance

The QA Program was evaluated during this period in the course of inspections performed in all functional areas. Eight inspection hours were utilized in the specific implementation of this functional area.

No items of noncompliance were identified.

Conclusion

Category 1

Board Recommendation

None.

10. Design

A total of 42 inspection hours (34 on Unit 2 and 8 on Unit 3) were utilized in this functional area. No items of noncompliance were identified. In addition, Torrey Pines Technology performed an extensive independent reverification of seismic design and did not identify any significant problems. This program was reviewed and audited by Region V.

Conclusion

Category 1

Board Recommendation

None

11. Bulletins, 50.55(e) Reports, Followup Items, and Independent Inspection

A total of 365 inspection hours (206 on Unit 2 and 159 on Unit 3) were utilized in this functional area. No items of noncompliance were identified. Licensee responses to bulletins, 50.55(e) items, items of noncompliance, and other inspector findings were timely and satisfactory.

Conclusion

Category 1

Board Recommendation

A large number of inspection hours were necessary to close out open items prior to Unit 2 fuel load. This effort should be much less for Unit 3. Continue inspection for Unit 3 as necessary.

V. Performance Analysis of Functional Areas - Operations

1. Plant Operations

A total of 506 resident inspector-hours were used to evaluate plant operations. Four items of noncompliance were identified:

(a) Failure to verify engagement of CEA extension shaft coupling.

(b) Failure to comply with operating license conditions governing use of overtime for operating personnel.

(c) Failure to submit monthly operating report by the date required in technical specifications.

(d) Failure to comply with technical specification action statement regarding the supply of power for two 120 VAC vital instrument busses from alternate sources.

The licensee appears to be taking satisfactory corrective actions in response to these problems.

In addition to these difficulties the licensee has had difficulty in providing sufficient qualified operators. This has resulted in the extensive use of overtime. Some improvement in this area has occurred as evidenced by the change from three to four shifts on June 28, 1982. In this area, the shortage of Senior Reactor Operators (S.R.O.'s) has prevented the manning of the training department with four Unit 2 licensed S.R.O.'s as planned. Contractor S.R.O. "equivalent" licensed personnel are being used on a temporary basis in the training department.

Procedural compliance has been a problem during this period. Increased management emphasis has resulted.

During this period of initial start-up, many procedures were used for the first time. Thus, procedure problems were expected. In the area of procedure upgrade the licensee has shown a marked improvement.

Conclusion

Category 2.

Board Recommendation

None

2. Radiological Controls

Although no items of noncompliance were identified; the inspections revealed major programmatic problems associated with the timely implementation of the Radiological Environmental Monitoring Program and an adequately designed, properly calibrated and fully functional process and effluent radiation monitoring system. Strong management support to correct these problems, once identified by the NRC, was demonstrated by the licensee.

Conclusion

Category 2

Board Recommendation

None

3. Maintenance

During this period, three regional-based operations inspections and 80 resident inspector-hours were applied in this area.

Three areas of programmatic oversight and weakness were identified. These are:

- Failure to establish a system to assure that vendor information, supplied subsequent to equipment and system turnover to the operating staff, is appropriately coordinated, controlled and evaluated for incorporation into Technical Manual and/or procedures.

- Failure to establish a system to assure that equipment operability tests or functional tests, required by Technical Specifications or the ASME B&PV Code, are adequately specified, performed and documented.

. Failure to establish a method for controlling and inspecting rigging and handling equipment in a manner which complies with commitments to applicable industry standards.

The licensee has taken aggressive action to resolve these programmatic weaknesses.

Conclusion

Category 2

Board Recommendation

None

4. Surveillance

Four inspections by regional based operations inspections were performed in this area on the licensee's administrative controls to effect an adequate surveillance program which complied with Technical Specifications. In addition, a total of 758 resident inspection hours were applied to examining preoperational, startup and surveillance testing. Generally, the Unit 3 preoperational testing programs and the Unit 2 start up testing programs were acceptable.

Inspections prior to the issuance of the operating license identified four major weaknesses in the licensee's Technical Specification surveillance program:

. Inadequate management control procedures for assigning and accomplishment of surveillance requirements.

. Inadequate identification of surveillance requirements necessary to support changes in operating modes.

. Inadequate surveillance testing procedures.

. Inadequate system to control and schedule surveillance performance.

These adverse findings further highlighted the weaknesses identified in the licensee's procedure review system (see evaluation of Quality Assurance Program and Implementation) and resulted in an additional operating license condition to assure that the licensee would establish surveillance procedure adequacy and performance prior to changing operating modes.

The licensee's corrective actions included a massive reexamination of the system to control and comply with Technical Specification surveillance requirements. These corrective actions appear to have been effective with the exception of controlling and scheduling surveillance performance.

Several event reports have resulted from the failure to comply with Technical Specification Limiting Conditions for Operation and surveillance requirements (82-004, 82-010, 82-011, 82-017, 82-020). These indicate the need for increased management attention to assure that surveillances are appropriately scheduled and performed as required by Technical Specifications.

Conclusion

Category 2

Board Recommendation

None

5. Fire Protection

A total of 20 resident inspector hours were applied in examining fire protection.

A large number of fire barriers had been breached during construction activities (see Special Report dated March 29, 1982 and supplements). In addition, four event reports (82-01, 82-07, 82-10 and 82-14) were issued documenting fire protection problems.

Administrative controls implemented during construction had reduced the number of barriers breached during the performance of construction activities.

Conclusion

Category 2

Board Recommendation

None

6. Emergency Preparedness

An appraisal of the licensee's state of onsite emergency preparedness was performed during the period of this assessment. This appraisal disclosed a strong management support for emergency planning. No significant deficiencies were identified; however, a number of items for improving the program were suggested. Open items identified during the appraisal, one of which was training, were confirmed to have been completed during subsequent inspections. The appraisal findings established that emergency preparedness was satisfactory. Improvements in the emergency preparedness program were noted during the subsequent inspections. In most instances the licensee responded to NRC initiatives and suggestions in a timely manner. The staffing and final training program for emergency response were found to be acceptable.

An NRC team observed an emergency planning exercise that involved Unit 2 during this assessment period. This was the first exercise to involve the Unit 2/3 Technical Support Center, the Operational Support Center and the relocated interim (offsite) Emergency Operations Facility. No significant deficiencies or problems were identified during exercise observations. The offsite responses during the exercise were observed by representatives of the Federal Emergency Management Agency (FEMA).

Conclusion

The licensee's overall performance in this area is rated Category 1 based on the observed management support of and the licensee's attention to the NRC emergency preparedness requirements. As noted above, the NRC has identified items for improving the licensee's emergency preparedness program and timely action has been taken by the licensee.

Board Recommendation

None

7. Safeguards and Security

During this evaluation period this area was the subject of 791 man hours of preoperational inspection effort and 125 hours of routine inspection effort. No violations were identified. The large number of NRC manhours expended on preoperational inspection was due to the failure of the licensee to have an effective security system in place when the regional security inspection team arrived. The licensee has experienced periodic outages of the access

control/intrusion alarm annunication computer system. The licensee is taking positive steps to correct problems with the computer system, and has employed proper compensatory measures during the outages.

As a result of concerns identified by region based inspectors regarding delays in gaining access to certain plant areas, and a belief that these delays had a potential for hampering emergency response activities, Region V management formed a Safety/Security Interface Task Force to examine the complaints received. The task force identified several problem areas, which could potentially have a negative impact on the licensee's ability to handle an operational emergency. The region's findings were presented to the licensee who subsequently responded with a time schedule for correction of the problem areas. All corrective actions, except for a new security computer system are to be in place and effective by November 1, 1982. A new security computer system is to be in operation by May 1984. The board is concerned that access to plant areas essential for dealing with operational emergency situations not be inhibited. Also, operations, health physics and security personnel should not be unduly delayed during their normal rounds assessing the functioning of plant systems.

2. Conclusion

Category 2

3. Board Recommendation

The board recommends that licensee management take precautions to ensure that mobility of emergency response personnel will not be inhibited. The board also recommends that a safety/security task force similar to the intitial task force, review the licensee's corrective actions with regard to the safety/security interface at a date after November 1, 1982.

8. Refueling

A total of 70 inspector-hours were used in examining initial fuel load. One item of noncompliance was identified: Failure to provide adequate drawings or procedures to prevent an inadvertent slow boron dilution. Overall, the initial fuel loading activity went very smoothly and was free of problems. This is exemplified by the short period (6 days) it took for completion of the fuel load process.

Conclusion

Category 1.

Board Recommendation

None

9. Licensing Activities

See Attachment 1 for the NRR evaluation and conclusion.

10. Quality Assurance Program and Implementation

During this period, five regional-based operations inspections were performed in this area. One violation was identified involving the failure to control temporary modifications as prescribed by procedures.

In general, the operations and startup quality assurance programs were adequate, however, weakness was identified, prior to issuance of the operating license, in the effectiveness of the licensee's procedure review process. As evidenced by the identification of programmatic oversights, several failures to adequately implement commitments of the topical QA Manual, and several procedural inconsistencies, the inspector concluded that the licensee's reviews of procedures, prescribing the administrative QA program controls, were neither comprehensive or complete. The licensee's corrective actions included the establishment of a group to coordinate procedure reviews and comment resolution and to review again selected implementing procedures to verify adequate implementation of commitments and consistency. These actions should effect an adequate corrective action to resolve this weakness.

Conclusion

Category 2

Board Recommendation

None

11. TMI Action Items

During this period, six regional-based operations inspections were performed in this area on Unit 2. Unit 3 verifications have not begun.

Licensee management has demonstrated an active commitment to completion of those action items applicable to SONGS-2. Items have been completed in a timely manner.

In the verification of completion of the licensee's commitments regarding control room design (Item I.D.1) it was identified that the drawing specifying markings for control room indicators had not been updated to correspond to Technical Specification revisions occurring after that drawing's original issue date. The licensee took prompt action to properly revise the drawing and correct inadequate indicator markings.

Conclusion

Category 1

Board Recommendation

None

a. LERs 82-04, 82-13, 82-17, and 82-20 involved missed or inadequate surveillance tests caused by inadequate procedures (one LER) or personnel error (three LERs).

b. LERs 82-11, 82-16, 82-24, and 82-25 involved failure to comply with Technical Specification Limiting Condition for Operation Action statements due to personnel error (three LERs) or defective procedures (one LER).

c. LERs 82-12 and 82-19 involved the inoperability of the control room emergency air cleanup system. The failure to initially identify a design error was a causative factor in the occurrence of the second event.

d. LERs 82-01, 82-07, and 82-23 involved the inadvertent actuation of the water spray fire protection system due to personnel error.

e. LERs 82-10 and 82-14 involved inadequate installation of fire rated assemblies and fire barriers. The failure to perform adequate and comprehensive inspections following the initial identification of inoperable fire rated assemblies (see Special Report dated March 29, 1982) is a contributing factor for these LERs.

TABULAR LISTING OF LERs BY FUNCTIONAL AREA

Unit 2
Docket No. 50-361

FUNCTIONAL AREA	NUMBER/CAUSE CODE	TOTAL
1. Plant Operations	6/A, 2/B, 1/D, 1/E	10
2. Radiological Controls		0
3. Maintenance	1/A	1
4. Surveillance - includes Inservice & Preoperational Testing	4/A, 1/B, 1/D, 2/E	8
5. Fire Protection	2/A, 1/B	3
6. Emergency Preparedness		
7. Security & Safeguards		
8. Refueling - includes Initial Fuel Loading		
9. Licensing Activities		
10. Other		
a. Quality Assurance Program & Implementation	1/B	1

CAUSE CODES: A - Personnel Error
B - Design, Manufacturing, Construction, or Installation Error
C - External Cause
D - Defective Procedures
E - Component Failure
X - Other

LICENSEE EVENT REPORTS (LERs)
SYNOPSIS

Unit 2
Docket No. 50-361

LER NO.	TYPE	DESCRIPTION	APPARENT CAUSE	
			LICENSEE	LER ANALYSIS
82-01	30 Day	Destruction of charcoal filter beds due to flooding caused by failure of deluge valve to act as an isolation valve.	Personnel Error	Personnel Error
82-02	24 Hour	Inadvertent loss of shutdown cooling system flow while in mode 6.	Personnel Error	Defective Procedure
82-03	24 Hour	Unplanned dilution of RCS while restoring shutdown cooling.	Personnel Error	Defective procedure
82-04	30 Day	Failure to perform required weekly surveillance on containment purge isolation system.	Personnel Error	Personnel Error
82-05	30 Day	Failure of control room emergency air cleanup system to start when required.	Defective Procedure	Defective Procedure
82-06	30 Day	Stratification of boron concentrations in RWST No. T006 due to inadequate mixing.	Design Error	Design Error
82-07	30 Day	Inadvertent initiation of water spray fire protection system in control bldg. cable riser area.	Personnel Error	Personnel Error
82-08	24 Hour	Unplanned dilution of RCS boron concentration	Component Failure	Defective Procedure
82-09	24 Hour	Potentially faulty indication on 41 safety-related sigma lumigraph indicators due to incorrectly specified resistors.	Design Error	Design Error

LICENSEE EVENT REPORTS (LERs)
SYNOPSIS

Unit 2
Docket No. 50-361

LER NO.	TYPE	DESCRIPTION	APPARENT CAUSE	
			LICENSEE	LER ANALYSIS
82-10	24 Hour	Inadequate determination of inoperable fire rated assemblies and corresponding inadequate fire watch assignments.	Personnel Error	Failure to adequately inspect fire rated assemblies (see Special Report of 3-29-82)
82-11	24 Hour	Failure to operate control room emergency air clean-up system in emergency mode when both channels of control room airborne monitoring are discovered inoperable.	Personnel Error	Personnel Error
82-12	30 Day	Train B of control room emergency air cleanup system determined to be inoperable during performance of monthly surveiliance test.	Commponent Failure	Component Failure
82-13	30 Day	Reactor Coolant System leak rate determined to be in excess of technical specification allowable.	Defective Procedure	Defective Procedure
82-14	24 Hour	Improperly sealed refractory blankets on cable tray fire barrier penetrations.	Construction/Installation	Failure to adequately inspect fire rated assemblies (see Special Report of 3-29-82)
82-15	30 Day	Overspeed trip of diesel generator 2G003 during monthly operability test.	Component Failure	Component Failure
82-16	24 Hour	Two vital 120 VAC busses energized from alternate sources in violation of technical specifications.	Personnel Error	Personnel Error
82-17	24 Hour	Failure to verify adequacy of ESFAS response times prior to entry into Mode 3.	Personnel Error	Personnel Error
82-18		Cancelled		

LICENSEE EVENT REPORTS (LERs)
SYNOPSIS

Unit 2
Docket No. 50-361

LER NO.	TYPE	DESCRIPTION	APPARENT CAUSE	
			LICENSEE	LER ANALYSIS
82-19	30 Day	Trains A and B of control room emergency air cleanup system determined to be inoperable during performance of monthly surveillance test.	Design Error	Management failure to properly evaluate cause of LER 82-12
82-20	24 Hour	Failure to perform containment airlock operability surveillance test each 72 hr.	Personnel Error	Personnel Error
82-21	24 Hour	Motor driven auxiliary feedwater (AFW) pumps, safety injection override relay contacts were miswired.	Construction Error	Defective procedure under construction
82-22		CANCELLED		
82-23	30 Day	Inadvertent actuation of sprinkler deluge system.	Personnel Error	Personnel Error
82-24	24 Hour	AFW system: Motor driven auxiliary feedwater pump discharge valve inoperable due to incorrect setpoint.	Personnel Error	Personnel Error
82-25	24 Hour	AFWS: Stream driven AFW PMP P140 declared inoperable resulting in removal of two auxiliary feedwater pumps from operable status.	Personnel Error	Personnel Error

SPECIAL REPORTS

Unit 2
Docket No. 50-361

EVENT DESCRIPTION	TECHNICAL SPEC.	EVENT DATE	LETTER DATE	REC'D IN REGION	APPARENT CAUSE
Establish firewatches on all inoperable fire rated assy.	3.7.9.a	At OL Issuance	3-29-82	04-01-82	Unit 3 under const. and Unit 3 is under Unit 2 fire protection system.
UPDATE			4-23-82	04-26-82	
UPDATE			5-14-82	05-21-82	
UPDATE			6-11-82	06-14-82	Blankets in cable trays (LERs 82-10, 82-14. Failure to perform adequate inspection on turnover to station.
SDCS relief used to mitigate RCS pressure transient	3.4.8.3.1.C	05-07-82	6-07-82	06-10-82	Inadequate operating procedure

3. Investigation Activities

One formal investigation of Unit 2 activities was conducted during this period consisting of 78 inspector-hours onsite. This investigation dealt with allegations regarding improper activities involving the installation of foam fire barriers. Several of the allegations were either partially or fully substantiated. Information developed during this investigation resulted in the identification of one enforcement action (Deviation: Failure to assure penetration fire stops completely seal off air around cable penetrations; NRC Inspection Report No. 50-361/81-32).

Regarding Unit 3 activities, no investigations were conducted during this evaluation period.

4. Management Conferences Held During the Assessment Period

Management Meeting, September 1, 1981

This meeting was held to discuss the results of NRC's regional evaluation of licens e performance (SALP), regarding activities authorized by NRC License No. DPR-13 and NRC Construction Permits Nos. CPPR-97 and 98, during the period of June 1, 1980 through June 30, 1981.

TABLE 1

INSPECTION ACTIVITIES

Unit 2
DN 50-361

Inspection Activities	No. of Inspections	Manhours
a. Regional Inspection		
1. Routine Operations Inspection	7	738
2. Reactive Operations Inspection	0	0
3. Routine Construction Inspection	6	291
4. Reactive Construction Inspection	1	78
b. Resident Inspection		
(Mostly Operations)	9	870
c. Health Physics		
1. Routine Inspection	8	528
2. Reactive Inspection	0	0
3. Health Physics Appraisal	0	0
d. Environmental		
1. Routine	4	60
2. LER Follow-up	0	0
e. Security and Safeguards		
1. Routine	5	916
2. Reactive	0	0
f. Emergency Preparedness		
1. Routine	1	102
2. Reactive	0	0
3. Emergency Preparedness Appraisal	2	230
TOTAL	43	3,813

TABLE 2

INSPECTION ACTIVITIES

Unit 3
DN 50-362

Inspection Activities	No. of Inspections	Manhours
a. Regional Inspection		
1. Routine Operations Inspection	1	31
2. Reactive Operations Inspection	0	0
3. Routine Construction Inspection	11	367
4. Reactive Construction Inspection	0	0
b. Resident Inspection	3	233
(Mostly Operations		
c. Health Physics	0	0
1. Routine Inspection		
2. Reactive Inspection		
3. Health Physics Appraisal		
d. Environmental	0	0
1. Routine		
2. LER Follow-up		
e. Security and Safeguards	0	0
1. Routine		
2. Reactive		
f. Emergency Preparedness		
1. Routine	0	0
2. Reactive	0	0
3. Emergency Preparedness Appraisal	1	183
TOTAL	16	814

TABLE 3

FUNCTIONAL AREA INSPECTION ACTIVITY AND ENFORCEMENT
CONSTRUCTION

UNIT 2

FUNCTIONAL AREA	INSPECTION MAN HOURS	VIOLATIONS (SEVERITY LEVEL)						*REPORT NO.
		VI	V	IV	III	II	I	DEVIATION
SOILS AND FOUNDATION	0							
CONTAINMENT AND OTHER SAFETY RELATED STRUCTURES	0							
PIPING SYSTEMS AND SUPPORTS - INCLUDES WELDING, NDE AND PRESERVICE	0							
SAFETY RELATED COMPONENTS - INCLUDES VESSEL, INTERNALS, AND PUMPS	8							
SUPPORT SYSTEMS - INCLUDES HVAC, RADWASTE, FIRE PROTECTION	84							81-32
ELECTRICAL POWER SUPPLY AND DISTRIBUTION	11	81-34						
INSTRUMENTATION AND CONTROL SYSTEMS	20							
LICENSING ACTIVITIES	0							
OTHERS (List)								
a. Quality Assurance	6							
b. Design	34							
c. Bulletins, 50.55(e) Reports, Followup Items, and Independent Inspection	206							
TOTAL	369	1						1

Numbers indicate NRC Inspection Report Number.

*Interim Enforcement Policy, 45 FR 66754, dated October 7, 1980.

TABLE 4

FUNCTIONAL AREA INSPECTION ACTIVITY AND ENFORCEMENT
CONSTRUCTION

UNIT 3

FUNCTIONAL AREA	INSPECTION MAN HOURS	VIOLATIONS (SEVERITY LEVEL) *REPORT NO						
		VI	V	IV	III	II	I	DEVIATION
SOILS AND FOUNDATION	0							
CONTAINMENT AND OTHER SAFETY RELATED STRUCTURES	82							
PIPING SYSTEMS AND SUPPORTS - INCLUDES WELDING, NDE AND PRESERVICE	48							
SAFETY RELATED COMPONENTS - INCLUDES VESSEL, INTERNALS, AND PUMPS	25			82-11				
SUPPORT SYSTEMS - INCLUDES HVAC, RADWASTE, FIRE PROTECTION	0							
ELECTRICAL POWER SUPPLY AND DISTRIBUTION	35							
INSTRUMENTATION AND CONTROL SYSTEMS	8							
LICENSING ACTIVITIES	0							
OTHERS (List) a. Quality Assurance	2							
b. Design	8							
c. Bulletins, 50.55(e) Reports, Follow-up Items, and Independent Inspection	159							
TOTAL:	367			1				

Numbers indicate NRC Inspection Report Number.

*NRC enforcement policy, 10 CFR 2, Appendix C, 47 FR 9887, dated March 9, 1982

TABLE 5
FUNCTIONAL AREA INSPECTION ACTIVITY AND ENFORCEMENT OPERATIONS

UNIT 2

FUNCTIONAL AREA	INSPECTION MAN HOURS	VIOLATIONS (SEVERITY LEVEL)*REPORT NO.				
		V	IV	III	II	I
1. Plant Operations	458	82-20	82-15 82-15 82-20			
2. Radiological Controls						
a. Radiation Protection	183					
b. Radioactive Waste Management	345					
c. Transportation	0					
d. Effluent Control and Monitoring	60					
3. Maintenance	80					
4. Surveillance - includes Inservice & Preoperational Testing	549					
5. Fire Protection	20					
6. Emergency Preparedness	332					
7. Security and Safeguards	916					
8. Refueling - includes Initial Fuel Loading	70		82-15			
9. Licensing Activities	0					
10. Quality Assurance - Program & Implementation	148		82-12			
11. TMI Action Items	285					
TOTAL	3,446	1	5			

* NRC Enforcement Policy, 10 CFR 2, Appendix C, 47 FR 9887, Dated March 9, 1982. Numbers indicate NRC Inspection Report Number.

TABLE 6

FUNCTIONAL AREA INSPECTION ACTIVITY AND ENFORCEMENT
OPERATING REACTORS

UNIT 3

FUNCTIONAL AREA	INSPECTION MAN HOURS	VIOLATIONS (SEVERITY LEVEL)* REPORT NO.				
		V	IV	III	II	I
1. Plant Operations	48					
2. Radiological Controls	0					
a. Radiation Protection	0					
b. Radioactive Waste Management	0					
c. Transportation	0					
d. Effluent Control and Monitoring	0					
3. Maintenance	0					
4. Surveillance - includes Inservice & Preoperational Testing	209					
5. Fire Protection	0					
6. Emergency Preparedness	183					
7. Security and Safeguards	0					
8. Refueling - includes Initial Fuel Loading	0					
9. Licensing Activities	0					
Other	7					
10. Quality Assurance - Program & Implementation	0					
11. TMI Action Items	0					
TOTAL	447					

* NRC Enforcement Policy, 10 CFR 2, Appendix C, 47 FR 9887, Dated March 9, 1982. Numbers indicate NRC Inspection Report Number.

TABLE 7
ENFORCEMENT ACTIONS

UNIT 2

NRC INSPECTION REPORT NO.	SEVERITY LEVEL	DESCRIPTION
50-361/81-32	DEVIATION*	Failure to completely seal off air spaces around four cable penetrations. (Failure of QC personnel to properly inspect penetrations as required by procedures)
50-361/81-34	VI*	Failure to document removal of a Class IE conduit after the conduit had been inspected and accepted. (Failure to follow procedures)
50-361/82-12	IV+	Failure to comply with administrative controls governing temporary modifications. (Failure to follow procedures)
50-361/82-15	IV+	Failure to verify engagement of CEA extension shaft coupling. (Failure to follow procedures)
50-361/82-15	IV+	Failure to comply with operating licensee condition governing use of overtime for operating personnel (Personnel Error)
50-361/82-15	IV+	Failure to provide adequate drawings and procedures to prevent inadvertent boron dilution of RCS (Failure of Management Control System).
50-361/82-20	V+	Failure to submit monthly operating report by the date required in technical specifications. (Failure of management control system)
50-361/82-20	IV+	Failure to comply with tech. spec. action statement regarding the supply power for two 120 VAC vital instrument busses from alternate sources.
		Apparent cause of violation in parenthesis

*Interim Enforcement Policy, 45 FR 66754, dated October 7, 1980.
+NRC Enforcement Policy; 10 CFR 2, Appendix C, 47 FR 9987, dated March 9, 1982.

TABLE 8

ENFORCEMENT ACTIONS

Unit 3

NRC INSPECTION REPORT NO.	SEVERITY LEVEL	DESCRIPTION
50-362/82-11	IV+	As-built configuration of shutdown heat exchanger upper seismic restraints did not conform to drawing requirements. (Failure to follow procedure)
		Apparent cause of violation in parenthesis

+NRC Enforcement Policy, 10 CFR 2, Appendix C, 47 FR 9887, dated March 9, 1982.

TABLE 9

Page 1

CONSTRUCTION DEFICIENCY REPORTS

50.55(e)

(Units 2 and 3)

NOTIFICATION DATE	DESCRIPTION OF CONDITION	INTERIM REPORT DATE	FINAL REPORT DATE
07/10/81	Shock arrestors-omission of lockwire.	NA	08/05/81
07/15/81	Steam generator feed ring distortion.	NA	08/11/81
07/23/81	Dresser safety valves - EPRI test failure.	08/20/81	10/30/81
08/03/81	Flammable spray adhesive - electrical use.	NA	09/01/81
08/03/81 (P)	Diesel generator camshaft bearing.	NA	09/01/81
08/17/81 (P)	Cracked guide lug inserts.	NA	09/16/81
09/10/81 (P)	General Electric HEA relays.	NA	10/02/81 (NR)
09/15/81	Use of incorrect welding procedure.	NA	10/14/81
09/15/81	Pipe support wrapper materials certified as stainless steel but determined to be incorrect.	NA	10/13/81
09/15/81 (P)	Failure of safety-related equipment to remain in an emergency mode after reset of the ESFAS signal.	NA	10/14/81 (NR)
09/23/81 (P)	Incorrect wire connectors on radiation monitors.	NA	10/23/81
10/06/81 (P)	Pressurizer level indicator malfunction due to condensate in flexible tubing.	NA	11/05/81
10/23/81 (P)	Preservice examination UT indications in RPV.	NA	12/04/81
11/03/81 (P)	Magnetrol switches in flooding sensor system.	NA	12/02/81
11/12/81 (P)	Misorientation of Unit 2 core support barrel.	NA	12/09/81
01/08/82 (P)	LPSI flow valve actuator coupling.	NA	01/21/82 02/04/82
03/09/82 (P)	Sigma Lumigraph indicators - resistor failure. (See Unit 2 LER 82-09)	NA	04/05/82

TABLE 9 (Con't)

Units 2 and 3)

NOTIFICATION DATE	DESCRIPTION OF CONDITION	INTERIM REPORT DATE	FINAL REPORT DATE
04/23/82 (P)	Main steam dump to atmosphere valves.	NA	05/20/82
06/21/82	Core protection calculator - wiring from CRD cabinets to CPC. (Not reportable for Unit 2)		
06/22/82	Gas radiation monitors - detector leakage and calibration.		

NOTES: P - Potential
NR - Not reportable

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

Facility Name: San Onofre 2 and 3
Licensee: Southern California Edison Company
NRR Project Manager: Harry Rood

I. Introduction

This report presents the results of an evaluation of the licensee, Southern California Edison Company, in the functional area of licensing activities. It is intended to provide NRR's input to the SALP review process as described in NRC Manual Chapter 0516. The review covers the period July 1, 1981 to June 30, 1982.

The basic approach used for this evaluation was to first select a number of licensing issues which involved a significant amount of staff manpower. Comments were then solicited from the staff. In most cases the staff applied the evaluation criteria for the performance attributed based on their experience with the licensee or his products. Finally, this information was assembled in a matrix which allowed an overall evaluation of the licensee's performance. This evaluation is based on staff input from ten branches in five NRR divisions and one IE division.

II. Summary of Results

NRC Manual Chapter 0516 specifies that each functional area evaluated will be assigned a performance category based on a composite of a number of attributes. The single final rating to be tempered with judgement as to the significance of the inductrial elements.

Based on this approach, the performance of Southern California Edison Company in the functional area - Licensing Activities - is rated category 2.

III. Criteria

Evaluation criteria, as given in NRC Manual Chapter Appendix 0516 Table 1, were used for this evaluation.

IV. Performance Analysis

The licensee's performance evaluation is based on a consideration of seven attributes as given in the NRC Manual Chapter. For most of the licensing actions considered in this evaluation, only three or four of the attributes were of significance. Therefore, the composite rating is heavily based on the following attributes.

- Management involvement
- Approach to resolution of technical issues
- Responsiveness
- Staffing

With the exception of Enforcement History, for which there was no basis within NRR for evaluation, the remaining attributes of

- Reportable events
- Training

were judged to apply only a few licensing activities.

The evaluation was based on our evaluation of the following licensing activities:

- Emergency Preparedness
- Inadequate core cooling instrumentation
- Independent design verification
- initial test program
- Inservice testing
- Instrumentation and controls
- Operator licensing
- Offsite dose calculation manual
- Natural circulation tests
- Technical Specifications

A. Management Involvement ~~in~~ Assuring Quality

Overall rating for this attribute is category 2. There is evidence of planning and assignment of priorities and decision making seems to be at a level that ensures management review. In general, the rating is consistent when examined at the license activity levels listed above. Typical areas where management involvement was evident are in meeting the requirements of emergency preparedness, instrumentation and control systems, offsite dose calculation manual. Management involvement was outstanding in the independent design verification program, but was below average in the area of Technical Specifications. This below average rating is based on the relatively frequent requests for emergency Technical Specification changes that have occurred since the Unit 2 OL was issued.

B. Appr ch to Resolution of Technical Issues from a Safety Standpoint

The overall rating for this attribute is category 1. The performance rating for individual licensing actions falls into category 1 or 2, with the majority being category 1.

C. Responsiveness

The overall rating for this attribute is category 1, with all except two performance rating falling into this category. This is the licensee's strongest attribute.

D. Enforcement History

There is no basis for an NRR evaluation of this attribute.

E. Reportable Events

The only licensing action for which this attribute is applicable is Technical Specifications, were up to 33 instances have been identified where it was necessary for Unit 2 to enter an LCO action statement, but the condition was not evaluated for reportability. Failure to submit reports appears to be due to inadequate implementation of the licensee's reporting procedure. This attribute is rated category 3.

F. Staffing

The overall rating for this attribute is category 2, with three licensing actions rated category 1, three rated category 2, and one rated category 3. The area needing additional staffing is the operator training department.

G. Training

The overall rating for this attribute is category 2, with two licensing actions rated category 2 and one rated category 3. Additional training of plant personnel appears to be warranted in the area of Technical Specifications.

V. Conclusion

Based on the evaluation of seven attributes of Southern California Edison Company's performance for a number of significant activities in the functional area of licensing, an overall performance rating of category 2 is determined. Specifically, management attention and involvement with matters of nuclear safety is evident in most areas, the technical approach to problem resolution is good, and the licensee's responses are timely. Additional attention should be given to reportable events. Staffing and training are generally adequate, although additional staffing for operator training is needed.