U. S. NUCLEAR REGULATORY COMMISSION

REGION V

Report Nos. 50-206/87-06, 50-361/87-02, 50-362/87-02

Docket Nos. 50-206, 50-361, 50-362

License Nos. DPR-13, NPF-10, NPF-15

Licensee: Southern California Edison Company
P. O. Box 800
2244 Walnut Grove Avenue
Rosemead, California 91770

Facility Name: San Onofre Nuclear Generating Station Units 1, 2, 3

Inspection at: San Clemente, California

Inspection Conducted: January 14 - March 26, 1987

Inspector: C. W. Caldwell FOR
P. M. Qualls, Reactor Inspector — 4/15/87 Date Signed

C. W. Caldwell FOR
P. H. Johnson, Chief
Reactor Projects Section 3 — 4/15/87 Date Signed

Approved By: C. W. Caldwell FOR
P. H. Johnson, Chief
Reactor Projects Section 3 — 4/15/87 Date Signed

Inspection Summary:

Inspection on January 14 - March 26, 1987 (Report Nos. 50-206/87-06, 50-361/87-02, 50-362/87-02)

Areas Inspected: Routine project inspection in the areas of calibration program implementation, nuclear safety concern program implementation, and licensee event report review. Inspection procedures 64704, 56700, and 90712 were covered.

Results: Of the areas inspected, no violations or deviations were identified. A confirmatory action letter was issued concerning the reporting of unplanned ESF actuations (paragraph 6.e).

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DETAILS

1. Persons Contacted

*M. Wharton, Deputy Station Manager
*D. Schull Jr., Maintenance Division Manager
D. Schone, Manager, Site Quality Assurance
W. Zintl, Manager, Compliance
*J. Harmon, QA Supervisor
*A. Hammons, QA Supervisor
*J. Anaya, Maintenance Engineer
*J. Martin, ISEG Engineer
*C. Couser, Compliance Engineer
T. Garvin, QA Engineer
D. Cox, SCE Licensing
D. Barreres, Supervising Engineer, Fire Protection
J. McGaw, SCE Licensing

*Attended exit meeting February 20, 1987.

In addition other members of licensee staff were contacted during the course of the inspection.

2. Review of Licensee Report of Inservice Inspection for Unit 2

An inspector reviewed the "Owner's Report of Inservice Inspection, form NIS-1 San Onofre Nuclear Generating Station, Unit 2" for the second refueling outage performed in 1986.

It appeared that the information reported by the licensee was technically adequate and satisfied the applicable reporting requirements established in the technical specifications (TS), the license, and 10 CFR.

3. Nuclear Safety Concern Program

The licensee has in effect, a program for employees to identify to plant management concerns which may affect the operation of the plant. The licensee has established drop boxes at various site locations where an employee can write his concern on the form provided at the box and simply deposit it into the drop box. The employee does not have to provide his name if he wishes to remain anonymous. The inspector reviewed ten of these in order to observe licensee implementation of this system. The system appeared to function well and licensee follow up appeared prompt and effective.

4. Fire Protection

The licensee has implemented a number of changes to the fire protection plan which was reviewed and approved by NRR in the Safety Evaluation Report (SER) and its supplements. Specific examples include the modification of fire barriers for the Unit 2/3 laundry and the storage of combustible materials in Unit 3. The fire protection plan as described in the SER and supplements 4 and 5, was incorporated into the SONGS 2 and 3 operating license as a license condition. The changes to the plant were made after a safety evaluation was performed in accordance with 10 CFR 50.59. The NRC has adopted the position, that in order to make changes using the criteria given in 10 CFR 50.59, the licensee must have an amendment to the license to allow the change. Licensees were encouraged to request this amendment in Generic Letter 86-10. The amendment was requested for SONGS 2 and 3 in February 1987. This item is unresolved pending NRC action on the license Amendment Request. (50-361/87-02-01)

5. Calibration (Chapter 56700)

The inspector verified frequency of calibration for a selected sample of licensee calibration procedures. The calibration frequency required by the procedures were in accordance with unit technical specifications.

The inspector reviewed the completed test documentation for a total sample of 10 unit 1, 2 and 3 calibration procedures. In all but one case, the test documentation was complete. In all cases, acceptance criteria were met and the proper approved test procedures were used.

Unit 1 calibration procedure SO1-II-1.6.3, "Source Range Channel N-1201 Calibration," was performed as part of Maintenance Order (MO) No. 87011045002. When the inspector reviewed the files, the final MO closure had not been completed. However, it appeared that the procedure was not performed in its entirety and that there was some question by licensee personnel as to the adequacy of the procedure.

The technician performing the procedure had in the notes section, a number of steps which he felt needed revision. The licensee staff stated that they would look at the procedure to determine if it was performed properly and provide their findings to the NRC. This item is unresolved pending review of licensee findings. (50-206/87-06-01)

The inspector also talked to the licensee personnel responsible for Instrumentation and Control technician training. Their program has had an initial INPO review. The followup review by INPO is scheduled for March 1987 with final INPO certification expected to follow shortly thereafter. Their program consists of two weeks lab training on plant specific equipment. In addition, they hire only journeyman technicians, normally with previous industry experience in this area.

6. Review of Licensee Event Reporting Procedures

A review of licensee event reporting procedures was conducted to determine if events were reported as required by 10 CFR 50.73. Considered in this review, was the consistency of Licensee Event Reports with licensee

records and with Emergency Notification System (ENS) reports made pursuant to 10 CFR 50.72. The review was initiated, in part, to determine whether correct actions were taken for some events reported under 50.72 but not 50.73. The review consisted of discussions with cognizant licensee personnel and examination of the following documents:

- Operations Division Procedure SO123-0-14, Revision 0, "Notification and Reporting of Significant Events"
- Licensee Event Reports (LERs), Units 1, 2, and 3, 1986, and related documents filed therewith
- Reporting Disposition Sheets (RDSs), 1986
- Selected Control Room and Shift Supervisor Logs for January - March 1986, Units 1, 2, and 3

Inspection findings resulting from this review were as follows:

a. Review of Governing Procedure

Operations Division Procedure SO123-0-14, "Notification and Reporting of Significant Events," was issued by the licensee to implement the reporting requirements of 10 CFR 50.72 and 50.73. Included as Attachment 6 to this procedure was an Event Notification Form, commonly referred to by licensee personnel as an "0-14." The procedure defined those events required to be reported by regulations, and prescribed that an 0-14 be initiated by the Shift Superintendent whenever an ENS notification is made. A Compliance Division representative stated that each 0-14 results in an LER or a Reporting Disposition Sheet (RDS) (which is a document initiated by Compliance to document why an LER is not appropriate).

The reporting instructions as defined in Procedure SO123-0-14 appeared to provide appropriate guidance for meeting the requirements of 10 CFR 50.72 and 50.73, with the following exceptions:

- Paragraph (b)(1)(v) of 50.72 requires a one-hour ENS report of "Any event that results in a major loss of emergency assessment capability, ... (e.g., ... Emergency Notification System ...)." This requirement is addressed by section 6.2.7 of the licensee's procedure. A NOTE in this section refers the user to additional guidelines provided in Attachment 5. Paragraph A of Attachment 5 indicates that loss of the ENS would be reportable only if the designated backup system, the Pacific Bell commercial phone system, is also inoperable. This appeared to be inconsistent with 50.72, although no instances were identified wherein inoperability of the ENS was not reported. During a telephone conversation subsequent to the inspection, the licensee committed to change the procedure to provide consistency with 50.72. (Followup Item 50-206/87-06-02)

- Paragraph (b)(2)(ii) of 50.72 and paragraph (a)(2)(iv) of 50.73 state that the licensee shall report any event or condition that

results in manual or automatic actuation of any Engineered Safety Feature (ESF). However, these paragraphs further state that an actuation of an ESF that results from, and is part of the "preplanned sequence during testing or reactor operation" need not be reported.

These reporting requirements were addressed by sections 6.3.2 and 6.10.2.1 of the licensee's procedure. However, these procedure sections appeared to broaden the "preplanned sequence" exception by stating in step 1, that actuations attributed to testing, adjustment, maintenance, system power up or power down, or other specified known causes (e.g., switchyard operations, start/stop of major pieces of equipment, radio interference) need not be reported. The section did state in step 2, that "All unexpected actuations where the initiation setpoint is reached or those actuations resulting from random equipment failure are reportable." However, step 1 appeared to exempt the reporting of several types of ESF actuations without regard to whether or not the actuation was preplanned. This is discussed further in the following paragraphs.

b. Examination of Related Records

Examination of the logs and records specified above showed that the licensee had submitted LERs as required in most cases. The only exceptions noted, were related to the reporting of ESF actuations, as discussed in paragraph 6.a. Review of logs and licensee records established that LERs were not submitted for the following ESF actuations which did not appear to be part of a preplanned sequence; and therefore, appear to have been reportable as LERs pursuant to 10 CFR 50.73(a)(2)(iv):

Date/Time	Unit	Description
1/7/87, 0855	2/3	Toxic Gas Isolation System (TGIS) actuation while investigating failed ammonia analyzer
1/8/86, 0400	2/3	Actuation of Control Room Isolation System (CRIS), Train "A" while starting radiation monitor sample blower (blower pulley had fallen off). The RDS for this event stated that starting the sample pump with no load may have caused a ground surge resulting in CRIS actuation. The RDS also stated that "notification was unnecessary since the actuation was anticipated."
2/19/86, 1430	1	Inadvertent autostart of No. 2 diesel generator (caused by an electrician opening the fuse cabinet door in cubicle 152-12C03)
3/16/86	2	Containment Purge Isolation System (CPIS), Train "A" actuation on starting of High Pressure Safety Injection (HPSI) Pump P018

A licensee representative stated that SCE had adopted a new position, effective January 1986, that ESF actuations are not reportable if they are determined to be attributed to testing, maintenance, or operations, and the cause is known. One example given, was the starting of a particular HPSI pump which often causes an ESF actuation due to some undefined system interaction. Such an actuation would be "anticipated" and therefore not reportable.

c. Discussion of Licensee's Position

In discussions during this inspection, licensee representatives stated that reporting of some of the less significant ESF actuations, particularly those involving ventilation systems (e.g., TGIS, CRIS, CPIS) when the cause is known, was considered to be beyond the intent of the reporting requirements in 10 CFR 50.72 and 50.73. In developing this position, emphasis was placed on a statement from the guidance contained in the Statement of Considerations (published with 10 CFR 50.73 on July 26, 1983), that "Actuations that need not be reported are those initiated for reasons other than to mitigate the consequences of an event (e.g., at the discretion of the licensee as part of a planned procedure or evolution)."

The licensee submitted a followup letter (H. E. Morgan to P. Johnson, March 5, 1987) to define this position. This letter provided a discussion of the evolution of the rules and the licensee's understanding of their meaning. Some considerations identified in the letter are as follows:

- The letter made reference to Federal Register Notices in 1981, which published early versions of the 50.72 rule (no longer effective), to note that the NRC was interested in the reporting of SIGNIFICANT events.

- Reference was made to the proposed LER Rule published on May 6, 1982, and its discussion of SIGNIFICANCE. The letter noted that this proposed Rule also did not require reporting of ESF actuations initiated "for reasons other than to mitigate the consequences of an event (e.g., at the discretion of the operators, as part of a planned procedure)."

- The letter indicates that similar guidance was provided in the publication of the final 10 CFR 50.72 and 50.73 rules. However, the guidance published with these final rules was not specifically discussed in the licensee's letter.

- The CRIS, TGIS, TGIS, and Fuel Handling Isolation System (FHIS) are actuated by conservatively set radiation monitors which are sensitive to electromagnetic interference and subject to frequent, periodic maintenance which increases their probability of inadvertent actuation. These actuations are not of safety significance and should not be reported.

d. Discussion of Current Requirements

Paragraph 50.73(a)(2)(iv) requires reporting of:

> "Any event or condition that resulted in manual or automatic actuation of any Engineered Safety Feature (ESF) .... However, actuation of an ESF ... that resulted from and was part of the preplanned sequence during testing or reactor operation need not be reported."

Guidance on the new LER Rule was provided in the Statement of Considerations issued with the new Rule on July 26, 1983 (Federal Register, 48 FR 33850). This guidance was republished (for wider distribution) as Section V of NUREG-1022. In addition to this guidance, NUREG-1022, Supplement No. 1, provided additional guidance in the form of questions and answers. Pertinent portions of this guidance are as follows:

- The guidance states, regarding 50.73(a)(2)(iv), that "This paragraph requires events to be reported whenever an ESF actuates either manually or automatically, regardless of plant status. It is based on the premise that the ESFs are provided to mitigate the consequences of a significant event and, therefore ... (2) they should not be challenged frequently or unnecessarily. The Commission is interested in ... events where an ESF operated unnecessarily." (NUREG-1022, page 13).

- "Operation of an ESF as part of a planned operational procedure or test ... need not be reported. However, if ... the ESF actuates in a way that is not part of the planned procedure, that actuation must be reported." (NUREG-1022, page 13).

- "Actuations that need not be reported are those initiated for reasons other than to mitigate the consequences of an event (e.g., at the discretion of the licensee as part of a planned procedure or evolution)." (NUREG-1022, page 14) Although this statement serves as part of the licensee's basis for not reporting some ESF actuations, note that the one example given involves licensee discretion and a planned procedure or evolution (i.e., not inadvertent). It is also noted, that licensee's Procedure SO123-0-14 (on Page 2 of Attachment 1), defines PREPLANNED SEQUENCE (the words used in 50.73(a)(2)(iv)) as: "Those operations of the NSSS and its auxiliaries that are performed in accordance with a written and properly approved procedure."

- "Q: Two of our ESF systems, the toxic gas isolation system and a control room isolation system, are highly unreliable and often actuate when not needed (invalid actuation). Are spurious actuations reportable?

  "A: Yes. Spurious actuations of ESF are challenges to the system and are reportable." (NUREG-1022, Supplement No. 1, page 7, question 6.3)

- "Q: In our plant, a turbine trip results in starting of the diesel generator(s).... Since a turbine trip can result from a variety of nonsafety-related causes, would the starting of the diesel generators (ESF equipment) be reportable?

  "A: Yes. Actuation of any ESF is reportable." (NUREG-1022, Supplement No. 1, pages 7-8, question 6.4)

- "Q: Often we are in operating modes when ... parts of the containment isolation system may actuate when the system is not required to be operable. Are such events reportable as LERs?

  "A: Yes. Actuations of ESF and RPS are reportable even if they are spurious or unnecessary. However, if the actuation or trip is part of a preplanned sequence, or it is a controlled (e.g., documented) and expected result ... it is not reportable." (NUREG-1022, Supplement No. 1, page 8, question 6.7)

e. Conclusions

Based upon the review conducted, and the findings and requirements as discussed above, it appears that the licensee's interpretation of 10 CFR 50.73(a)(2)(iv) is too limiting. The wording of the Regulation itself and the guidance in the Statement of Considerations, indicate that all ESF actuations which are not preplanned are reportable. Sections 6.2, 6.4, and 6.5 of the San Onofre 2/3 FSAR indicate the TGIS, CRIS, and CPIS to be ESF systems. Question 6.4 of NUREG-1022, Supplement 1 and past reporting history (see LER 206/84-02) indicate that diesel generators are also considered to be ESF equipment.

In reviewing this issue as discussed above, the NRC staff concludes that all unplanned ESF actuations are required to be reported via the ENS and as LERs. However, it is recognized that one statement in the Statement of Considerations appears inconsistent with this conclusion and may have caused the requirement to be misunderstood. In view of this inconsistency, the NRC staff determined that a Notice of Violation would not be issued regarding this matter. In a followup telephone conversation on April 14, 1987, licensee management committed to, (1) report all subsequent unplanned ESF actuations and (2) submit LERs on all such ESF actuations, since the beginning, for which LERS were not previously submitted. This understanding was confirmed in a Confirmatory Action Letter from Region V to the licensee.

7. LER Follow Up

The following Unit 2 LERs are closed based on a review of documentation of followup corrective actions taken by the licensee.

82-05, 82-64, 82-70, 82-80, 82-84, 82-87, 82-89 and 82-96 (closed)

8. Facility Tour

The inspector toured all three units at various times during the inspection. No violations or deviations were identified.

9. Exit Meeting

An exit meeting was held on February 20, 1987. The items listed in this report were discussed at that time. Conversations were also held with licensee management on April 13, 1987, regarding the reporting of ESF actuations (paragraph 6.e).