

U. S. NUCLEAR REGULATORY COMMISSION

REGION V

Report No. 50-361/82-43
50-362/82-35
Docket No. 50-361; 50-362 License No. NPF-10, NPF-15 Safeguards Group _____
Licensee: Southern California Edison Company (SCE)
P. O. Box 800, 2244 Walnut Grove Avenue
Rosemead, California 91770

Facility Name: San Onofre - Units 2 and 3

Inspection at: San Onofre Site, San Clemente, California

Inspection conducted: December 22, 1982 through January 19, 1983

Inspectors: *D. Kirsch* 1/27/83
A. Chaffee, Senior Resident Inspector, Unit 2 Date Signed

Date Signed

Approved by: *D. Kirsch* 1/27/83
D. Kirsch, Chief, Reactor Projects Section No. 3 Date Signed
Reactor Projects Branch No. 2

Summary:

Inspection on December 22, 1982 through January 19, 1983
(Report Nos. 50-361/82-43, 50-362/82-35)

Areas Inspected: Routine, unannounced resident inspection of Units 2 and 3 Operations Program and Units 2 and 3 Startup Test Program including the following areas: post core hot functional test witnessing Unit 3; power ascension test witnessing Unit 2; plant trips Units 2 and 3; and independent inspection effort Units 2 and 3. This inspection involved 51 inspector-hours on Unit 2, and 22 inspector-hours on Unit 3 for a total of 73 hours by one NRC inspector.

Results: Of the four areas examined, one apparent item of noncompliance was identified (failure to properly label container of radioactive material paragraph 2, severity level V).

DETAILS

1. Persons Contacted - Units 2 and 3

- H. Ray, Station Manager
- +B. Katz, Technical Manager
- H. Morgan, Operations Manager
- +P. Knapp, Health Physics Manager
- M. Short, Project Support Manager
- +W. Moody, Deputy Station Manager
- +P. Croy, Compliance and Configuration Control Manager
- F. Eller, Security Manager
- D. McCloskey, Emergency Preparedness Manager
- J. Curran, Manager, Quality Assurance
- D. Schone, Onsite Quality Assurance Manager
- +P. King, Units 2 and 3 Operations Quality Assurance Supervisor
- C. Horton, Units 2 and 3 Startup Quality Assurance Supervisor
- D. Stonecipher, Units 2 and 3 Nuclear Quality Control Supervisor
- A. Talley, Material and Administrative Services Manager
- J. Wambold, Maintenance Manager

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 January 17, 1983.

Also present at the exit interview was R. Pate, Senior Resident Inspector, Unit 3.

2. Operational Safety Verification - Units 2 and 3

The inspector observed control room operations, reviewed applicable logs and conducted discussions with control room operators during the inspection. The inspector verified the operability of selected emergency systems, reviewed tagout records and verified proper return to service of affected components. Tours of various plant areas were conducted to observe plant equipment conditions, including potential fire hazards, and excessive vibrations. The inspector also observed protected area access controls and operability of facility egress radiological monitoring equipment. The inspector also observed the implementation of plant housekeeping/cleanliness controls.

a. Improper Labeling of Containers containing Licensed Radioactive Material

On December 22, 1982 the inspector observed three unlabeled containers of radioactive material on the fifteen foot level of the Unit 2 containment. These containers were located inside a restricted area/radiation area (Unit 2 containment). Contact readings on two of these containers were between 5 and 18 mrem/hour, as read by the licensee. These containers contained the contaminated reactor coolant pump seals which had been removed, during the preceding outage, from the reactor coolant pumps. Two of these containers were located inside a posted surface contaminated area. A third container, reading 5 mrem/hour, was outside the surface contaminated area. This container was in an area in which no posting existed to indicate the presence of any radioactive material. 10 CFR 20.203(f) states in part:

"(1)...each container of licensed material shall bear a durable, clearly visible label identifying the radioactive contents.

(2) A label required pursuant to paragraph (f)(1) of this section shall bear the radiation caution symbol and the words "CAUTION, RADIOACTIVE MATERIAL" or "DANGER, RADIOACTIVE MATERIAL". It shall also provide sufficient information to permit individuals handling or using the containers, or working in the vicinity thereof, to take precautions to avoid or minimize exposures."

Contrary to the above requirement the third container was not labeled and was in an area where personnel had no indication of the presence of radioactive material. Thus insufficient information existed to permit workers, potentially working in the vicinity, to take precautions to avoid or minimize exposures. This is an apparent item of noncompliance.

The licensee's prompt corrective action consisted of labeling the containers involved and re-instructing HP technicians on the labeling requirements of S0123-VII-7.4 (Posting and Access Control) and the requirements of 10 CFR 20.203(f). The licensee's Quality Assurance Organization also issued Corrective Action Request S023 P-307 on December 27, 1982. The licensee has further committed to include a review of this item during the February monthly Health Physics retraining session.

The above corrective action appears to adequately address this matter and, therefore, no response to this citation is required. (50-361/82-43-01)

3. Post Core Hot Functional Testing (Unit 3)

The inspector observed selected portions of the following tests:

Incore Instrumentation	3HB-310-01
Dynamic Effects	3HA-102-03
Thermal Expansion	3HB-102-01

During the performance of these tests the inspector verified, on a selected basis by observations 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.

4. 50 Percent Power Plateau Power Ascension Testing (Unit 2)

The inspectors observed selected portions of the following test:

Reactor Regulating System Test	2PA-349-01
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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 was collected and recorded, and that the test adequately demonstrated conformance with applicable acceptance criteria.

No items of noncompliance or deviations were identified.

5. Plant Trips (Units 2 and 3)

Following the Unit 2 reactor trips, on January 3 and 4, 1983, and the Engineered Safety Features Actuation on Unit 3, on December 30, 1982, the inspector ascertained the status of the reactor and safety systems by observation and discussion with licensee personnel. All safety systems appeared to operate as required.

No items of noncompliance or deviations were identified.

6. Independent Inspection Effort (Units 2 and 3)

a. Engineered Safety Features Actuation with Concurrent Recirculation Actuation (ESFAS/RAS)

Background: On December 17, 1982 a simultaneous ESFAS/RAS occurred on Unit 3. The cause of this event was postulated, by the licensee, to be due to independent simultaneous multiple equipment failures. During the investigation of this problem, it was also discovered that the failure of certain Amphenol connectors in the Plant Protection System cabinets could also cause simultaneous ESFAS/RAS.

NRC Actions: The inspector reviewed portions of the licensee's corrective actions and noted the following:

1. The licensee's administrative controls, as contained in Special Order 82-47, appeared to be adequate for controlling access to the PPS Cabinets and Amphenol connectors in question.
2. Special Order 82-47 appeared to adequately respond to the need for heightened operator awareness of necessary mitigating actions should ESFAS/RAS occur. However, it was identified by the inspector that initially some difficulty was encountered in assuring operators were aware of Special Order 82-47 prior to assuming the watch. This however, was corrected prior to entering Mode 3, as required.
3. The licensee removed the automatic isolation feature of the recirculation valves on actuation of the Recirculation Actuation Signal.
4. The changes to Emergency Operating Instruction S023-3-5.6 (Loss of Coolant Accident) to assure manual shutting of the recirculation valves was consistent with the NRR Safety Evaluation Report on this issue.

b. HPSI Pump Flow Determination

The inspector reviewed the question of adequate demonstration of HPSI pump flow. It was found that the measuring equipment used to measure this flow had errors in its accuracy, in addition to the manufacturer's specified instrument error. These errors varied and were a function of the location of the sensing probes for this measuring equipment (Controlatron). These new errors had a range large enough to cause the adequacy of previous HPSI pump flow surveillance testing to be questioned.

In response to this problem the vendor (Combustion Engineering) issued a letter on January 7, 1983 in which they stated, based on a preliminary analysis, that up to 83 percent reactor power an additional 10 percent margin existed in the HPSI pump flow requirements and that an even greater margin exists at a reduced power of 50 percent. This additional margin at 83 percent power was sufficient to bracket the observed uncertainties in measuring HPSI flow. The licensee subsequently committed to the NRC that, prior to exceeding 50 percent power, it would be more clearly demonstrated that Technical Specification HPSI pump flow requirements are met. The licensee is currently installing additional instrumentation (Turbine Flow Meter) to verify satisfactory flows from each HPSI pump. Additional testing on HPSI pump 017 has been reported, by the licensee, to have been completed with acceptable results. Testing on the remaining two HPSI pumps will be completed in the following weeks. (50-361/82-43-02)

7. Exit Interview - Units 2 and 3

The inspector met with licensee representatives (denoted in Paragraph 1) on January 17, 1982 and summarized the scope and findings of the inspection. The licensee acknowledged the apparent violation of container labeling requirements (see paragraph 2.a).