

U. S. NUCLEAR REGULATORY COMMISSION

REGION V

Report No. 50-312/82-44 (OPS)

Docket No. 50-312 License No. DPR-54 Safeguards Group

Licensee: Sacramento Municipal Utility District (SMUD)

P. O. Box 15830

Sacramento, California 95813

Facility Name: Rancho Seco Unit 1

Inspection at: Herald, California (Rancho Seco Site)

Inspection conducted: December 7, 1982 to January 2, 1983

Inspectors: Talbert Young Jr. for 1-10-83
Harvey L. Canter, Senior Resident Inspector Date Signed

Talbert Young Jr. for 1-10-83
John O'Brien, Unit Resident Inspector Date Signed

Approved by: Talbert Young Jr. 1-10-83
T. Young, Jr., Chief, Reactor Projects Section No.2 Date Signed
Reactor Projects Branch No.1

Summary:

Inspection between December 7, 1982 - January 2, 1983 (Report No. 50-312/82-44)

Areas Inspected: Long term shutdown activities; operational safety verification; maintenance observations; surveillance observations; follow-up on Regional requests; follow-up on Headquarter's requests; and independent inspection effort.

The inspection involved 98 inspector-hours by the resident inspectors.

Results: Of the seven areas inspected, no items of noncompliance of deviations were identified.

DETAILS

1. Persons Contacted

R. Rodriguez, Manager, Nuclear Operations
*P. Oubre', Plant Superintendent
D. Blachly, Operations Superintendent
*R. Colombo, Technical Assistant
*S. Crunk, Associate Nuclear Engineer
W. Jurkovich, Supervising Resident Construction Engineer
*R. Miller, Chemistry/Radiological Superintendent
*R. Lawrence, Acting Maintenance Superintendent
T. Perry, On-site Quality Assurance Supervisor
*B. Spencer, Shift Supervisor
T. Tucker, Planner/Scheduler
J. Uhl, Mechanical Engineer
*W. Wells, Administrative Supervisor
D. Whitney, Engineering and Quality Control Superintendent
*B. Wichert, Plant Mechanical Engineer

The inspectors also talked with and interviewed several other licensee employees, including members of the engineering, maintenance, operations and quality assurance (QA) organizations.

*Denotes those attending the Exit Interview on December 30, 1982.

2. Long Term Shutdown Activities

The plant was shutdown from the start of the inspection period to December 13, 1982. This was to complete the "A" OTSG tube repairs and to refill and heatup the reactor coolant system. An inspection lane tube (77-2) and one second row lane tube (74-15) were stabilized and plugged. Another short outage occurred between December 22-26, 1982, due to weather related problems. This item is discussed in paragraph 3.

During the report period, the inspectors observed control room operations, reviewed applicable logs and conducted discussions with control room operators. The inspector verified that surveillance tests required during the shutdown were accomplished, reviewed tagout records, and verified containment integrity. Tours of the Auxiliary Building, including exterior areas were made to assess equipment conditions and plant conditions. Also, the tours were made to assess the effectiveness of radiological controls and adherence to regulatory requirements. Maintenance work requests were verified to have been initiated for equipment maintenance. The inspectors observed plant housekeeping/cleanliness conditions and looked for potential fire hazards. The inspectors, by observation and direct interview, verified that the physical security plan was being implemented in accordance with the station security plan. The inspectors reviewed the licensee's jumper/bypass controls to verify there were no conflicts with technical specifications.

No items of noncompliance or deviations were identified.

3. Operational Safety Verification

On December 11, 1982, while the plant was in hot shutdown, a rupture occurred in a six-inch main steam supply line to the "C" reheater. The break occurred at a pipe support which was welded to the pipe at the break. The steam flow through the break was isolated within one minute, by closing a motor-operated isolation valve. The Reactor Coolant System temperature and pressure dropped about 20 degrees (F) and 100 psi, respectively, before the break was isolated. The licensee may repair the steam line prior to the February refueling outage, but operation without all reheaters is an option the licensee may take. A resident inspector verified that plant operations were performed in accordance with plant technical specifications during and after the event. Power operations resumed on December 13, 1982. A large portion of this startup was witnessed by a resident inspector.

At 4:28 p.m. on December 22, 1982, Rancho Seco tripped due to turbine overspeed as a result of power line failures on the Pacific Intertie. The loss of 230 KV and 500 KV lines on the Intertie, due to a major windstorm, caused the loss of power to an estimated 2.5 million customers in California and Nevada. Rancho Seco performed as designed during the transient, but upon recovery, a burned-out stator was noticed on Rod 3, Group 6. The stator was replaced and power operation returned on December 26, 1982. Due to a decreased capacity on the grid, Pacific Gas and Electric (PG&E) asked SMUD to limit power levels to between 300 and 600 MWe at various times after startup until grid repairs were complete. PG&E estimated a return to normalcy around the first of 1983.

The inspector observed control room operations, reviewed applicable logs and conducted discussions with control room operators. The inspector verified the operability of selected emergency systems, reviewed tagout records and verified proper return to service of affected components. Tours of the Auxiliary Building and Turbine Building were conducted to observe plant equipment conditions, including 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 verified that the physical security plan was being implemented in accordance with the station security plan.

The inspector examined plant housekeeping/cleanliness conditions and verified the implementation of radiation protection controls. The inspector also walked down the accessible portions of the Auxiliary Feed System and Emergency Power System to verify operability.

No items of noncompliance or deviations were identified.

4. Maintenance Observations

The inspectors observed portions of the maintenance activities listed below and verified that work was accomplished in accordance with approved procedures, that work was accomplished by qualified personnel, that provisions for stationing a fire watch to oversee activities involving welding and open flame were complied with and that LCO requirements were met during repair.

- a. Fire suppression system repair and inspection.
- b. "A" Once-Through-Steam-Generator (OTSG) tube plugging operations.
- c. Calibration and repair of auxiliary feedpump gages.
- d. Control rod drive programmer circuit repairs.

No items of noncompliance or deviations were identified.

5. Surveillance Observations

The inspectors observed portions of the below listed surveillance testing to verify that the tests were covered by properly approved procedures; that the procedures used were consistent with technical specification requirements; that minimum crew requirements were met; that test prerequisites were completed; that special test equipment was calibrated and in service; and, that the test results were adequate.

- a. SP206.03A - Monthly "A" diesel generator test.
- b. SP210.03B - Throttle valve tightness test.
- c. SP203.02I - "B" high pressure injection pump venting and operational test.
- d. SP207.04 - Weekly RCS leakage evaluation.
- e. SP205.02 - Personnel access hatch tightness test.

No items of noncompliance or deviations were identified.

6. Follow-up on Regional Requests

During the month of December 1982, personnel from the Region V office of the NRC in Walnut Creek, California, requested information from the resident inspectors regarding the operation and maintenance of the Rancho Seco power plant. Information was obtained and transmitted to the Region V office concerning:

- a. Plant operating status.
- b. "A" OTSG tube repairs.
- c. Diesel building construction schedule.

No items of noncompliance or deviations were identified.

7. Follow-up on Headquarter's Requests

During the month of December 1982, personnel from the NRC Headquarters in Bethesda, Maryland, requested information from the resident inspectors about the operation, design, and maintenance of the Rancho Seco power plant. Information was obtained and transmitted to the NRC Headquarters on:

- a. Corrective action status concerning civil penalty of June 24, 1982.
- b. "A" OTSG tube repairs.

No items of noncompliance or deviations were identified.

8. Independent Inspection Effort

Discussions were held between the resident inspectors and operations, security, and maintenance personnel in an attempt to better understand problems they may have which are related to nuclear safety. These discussions will continue as a standard practice.

On numerous occasions during the month of December 1982, the resident inspectors attended operations status meetings. These meetings are held by the Operations Supervisor to provide all disciplines onsite with a update on the plant status and ongoing maintenance work.

In addition to the above, independent inspection effort was performed on the following items:

- a. New diesel building construction activities.
- b. Storage of Class 1 materials in the Nuclear Services Electrical Building.
- c. Refueling outage schedules.
- d. Spent fuel pool modifications.
- e. Follow-up on Item 82-42-01 (CLOSED): In report 82-42, the inspector discussed the failure of the "A" Decay Heat Cooler outlet valve to close. Maintenance performed on this valve indicated the failure to be an isolated event and not of generic concern. This item is CLOSED.

No items of noncompliance or deviations were identified.

9. Exit Interview

The inspectors met with the licensee representatives (denoted in paragraph 1) on December 30, 1982. The scope of the inspection, the observations and findings of the inspectors were discussed, and the licensee representative acknowledged the inspectors' observations.