U. S. NUCLEAR REGULATORY COMMISSION

REGION V

Report No. 50-312/83-22

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

Licensee: Sacramento Municipal Utility District
P. O. Box 15830
Sacramento, California 95813

Facility Name: Rancho Seco Unit 1

Inspection at: Herald, California (Rancho Seco Site)

Inspection conducted: July 2, 1983 - August 2, 1983

Inspectors: Talbert Young Jr. 8-12-83
for H. L. Canter, Senior Resident Inspector Date Signed

for Talbert Young Jr. 8-12-83
J. P. O'Brien, Unit Resident Inspector Date Signed

Approved By: Talbert Young Jr. 8-12-83
T. Young, Jr., Chief, Reactor Projects Section 2 Date Signed
Reactor Projects Branch 1

Summary:

Inspection between July 2 - August 2, 1983 (Report No. 50-312/83-22)

Areas Inspected: Long-term shutdown activities; maintenance observations; surveillance observations; licensee event report follow-up; Integrated Leak Rate Test witnessing; follow-up on Headquarters requests; follow-up on Regional requests; and independent inspection effort. The inspection involved 130 inspector-hours performed by two Resident Inspectors.

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

DETAILS

1. Persons Contacted

R. Rodriguez, Executive Director, Nuclear
*P. Oubre', Manager of Nuclear Operations
N. Brock, Electrical/I&C Maintenance Supervisor
+R. Colombo, Technical Assistant
*D. Comstock, Operations Superintendent
+G. Coward, Maintenance Superintendent
*S. Crunk, Associate Nuclear Engineer
*B. Fraser, Acting Engineering and Quality Control Superintendent
F. Kellie, Assistant Chemistry and Radiation Superintendent
R. Lawrence, Mechanical Maintenance Supervisor
*R. Miller, Chemistry/Radiological Superintendent
*T. Perry, On-site Quality Assurance Supervisor
J. Price, Surveillance Test Coordinator
S. Redeker, S.T.A. Supervisor
L. Schwieger, Quality Assurance Director
B. Spencer, Shift Supervisor
T. Tucker, Planner/Scheduler
J. Uhl, Mechanical Engineer
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 Interviews on July 29, 1983.

*Denotes those attending the Exit Interviews on August 1, 1983.

2. Long Term Shutdown Activities

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 and Reactor 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. Finally, the inspectors witnessed portions of the radioactive waste systems controls associated with radwaste shipments.

One management change was announced during this report period. Mr. Daniel Comstock has moved from the Shift Supervisor position to the Operations Superintendent position replacing the temporary incumbent, Mr.

Steve Redeker, who returned to the Shift Technical Advisor Supervisor position.

The plant was in a major outage status during this report period. As of this writing, the plant is in the heat-up mode with criticality a day away (August 3, 1983) and the on-line date four days away (August 6, 1983). Over the months since the plant shutdown (on February 17, 1983) many major maintenance items were completed, such as an Integrated Leak Rate Test; ten-year ISI work; Core Barrel and Thermal Shield Bolt replacements; Thermal Sleeve retrievals; and many more. In addition, many major TMI related changes were performed. Not all of these systems/changes are operational, but they all have been installed and training given in the form of 40 plus hours of classroom effort and some practical in-plant operations. These items include:

a. PASS.
b. Hydrogen Monitoring.
c. Hydrogen Purge and Recombiner.
d. ARTS.
e. RCS High Point Vents.
f. SPDS.
g. Auxiliary Feedwater Flow Indicators/Transmitters.
h. Auxiliary Feedwater Pump Automatic Loading.
i. E.O.F. and T.S.C.
j. Alert System to the State.
k. T-Sat Calculator.
l. Containment Pressure Monitor.
m. Sump Level Monitors.
n. RCS Wide Range Pressure Transmitters.
o. PORV and Safety Valve Position Monitors.
p. Nuclear Service Electrical Building Vital Buses.
q. Increased Radiation Monitor Range.
r. Improved In-Plant Iodine Instruments.

No items of noncompliance or deviations were identified.

3. 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. Main Generator Seal Oil Work.

b. Installation of Auxiliary Feedwater System Snubbers.

c. Packing Leak Repairs on First Off Valve near High Point Vent Valves.

d. New Fire Barrier Installation on Auxiliary Building Class 1 Trays.

No items of noncompliance or deviations were identified.

4. 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. SP201.03A - Diesel Driven Fire Pump Operational Test.

b. SP205.02 - Local Leak Rate Tests (Auxiliary Building/ Containment).

c. SP201.01 - ILRT

d. SP200.01 - Check of the Phase Imbalance/Underpower Relay System.

No items of noncompliance or deviations were identified.

5. Licensee Event Report Follow-up (LER)

The resident inspectors performed an examination of the following LERs to ascertain whether additional inspection effort or other NRC response is warranted, whether corrective action discussed in the licensee's report appears appropriate, and whether the information reported to the NRC appears to satisfy reporting requirements. In addition, the inspectors attempted to ascertain whether these events involved continued operation in violation of regulatory requirements or license conditions. The LERs listed below do not meet the above criteria and therefore require further completion of commitments prior to closing.

a. LER 83-23-LO (OPEN): Failure of a Decay Heat Pump to Start

The inspector witnessed the maintenance activities performed on an ITE 5KV breaker which was the same type that supplied power to the "A" Decay Heat Pump. This was done because the inspector felt there was a possibility of a parallel problem to the Control Rod Drive breaker problems experienced throughout the industry. The inspector determined that the ITE 5KV breakers appear not to be susceptible to failures that breakers with very tight tolerances on various adjustments inside the breaker experience. He did notice, however, that the licensee used Tri-Flon and CRC Lectra-Clean to maintain the breaker, whereas the vendor's manual says to use NEBULA EP 5F. A licensee representative stated that the vendor agreed to the use of Tri-Flon. The inspector stated that this use of these lubricant/cleaners should be approved in writing and the industry made aware of the substitutes. The licensee will pursue the approval in writing and industry notification. This LER review will remain OPEN pending receipt of the letter and other possible corrective actions by the licensee.

During this review, the inspector noticed an apparent lack of horizontal communication between the control room operators, and between the control room personnel and the engineering/support staff, because no mention of the fact that there were apparent "spring charge" indication anomalies was made in the Occurrence Description Report (AP-22) or in the subsequent LER that was written.

The spring charge indication modification, which was recently completed in response to a Civil Penalty issued by the NRC in 1982, may have prevented the operation of the breaker. At any rate, the licensee will look into the new indication circuit to see if malfunctions of the circuit can cause a lockout of the pump.

The licensee acknowledged that a horizontal communications problem may have existed in this case, but did not commit to any other corrective actions.

This review of LER 83-23-LO will remain OPEN until the above stated problems are satisfactorily addressed.

b. LER 83-26-TO (OPEN): Inoperable Safety Features Valve

The licensee has acted on the commitment to perform future modifications in a suitable location.

As far as modifying revising its refueling procedures to clarify the requirements for implementation of TS 3.8.7, the licensee has committed to an October 1, 1983 date for full compliance. Full compliance will be achieved, according to a licensee representative, by the writing of a new procedure, NEP 11, which will include appropriate valve line up checks. This review will remain OPEN pending completion of the prompt corrective action.

No items of noncompliance or deviations were identified.

6. Follow-up on Regional Requests

During the inspection period, 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. TMI modification status.

b. Post-Accident Sampling System Status.

c. Requirement to Report Technical Specification Changes to the State.

No items of noncompliance or deviations were identified.

7. Follow-up on Headquarter's Requests

During the month of July 1983, 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. Plant Staffing Concerns.

b. Over/Under Voltage Technical Specification and Special Tests.

c. Status of the Containment Purge Valve Repairs.

No items of noncompliance or deviations were identified.

8. Integrated Leak Rate Test Witness

The inspectors witnessed selected portions of the second periodic Containment Integrated Leak Rate Test (CILRT). The test was conducted at full pressure (Pa=52 psig). The licensee took the option of performing a short duration test in accordance with BN-TOP-1 which has built-in conservatisms that have been approved by the NRC. In the short duration BN-TOP-1 test the Total Time leak rate technique is used. This test has specific acceptance criteria: That being the 95 percent Upper Confidence Limit (UCL) Total Time value must be less than La (0.1 w/o/day) and the Total Time leak rate itself must be less than 0.75 La (.075 w/o/day). There are other criteria delineated in the BN-TOP-1 document. The licensee appeared to meet this criteria with an uncorrected leak rate of .073 w/o/day at the UCL. (Note: Correction of this data will be necessary before the final number is known, because penetrations and valves were isolated to successfully complete this test.)

The NRC for a long time has had the most confidence in the Mass Point technique for an Absolute method of calculation. It has been shown to be a more accurate representation of the actual containment leak rate. The uncorrected value of the Mass Point leak rate for this test was about 0.56 w/o/day for a 10.75 hour period ending about 2145 hours on July 5, 1983.

The UCL data for the Total Time techniques used in 1977 and in 1983 compare favorably (.069 and 0.73, respectively). But the Mass Point Data and the Total Time leak rates are about twice the value that the licensee obtained in 1977 for the first periodic CILRT. The inspectors suggested that this observation be discussed in the report that is due in NRC hands around October 7, 1983. The licensee did not commit to taking any action on the fact that it appears that the containment has degraded over the five years since the last test. The licensee did acknowledge the inspector's comments.

The inspectors will follow-up on the results of this test by examining the test report when it is issued later this year. Besides a discussion on the problems mentioned above, the inspectors stated that 10 CFR 50, Appendix J, Sections V.B.1 and V.B.3 list other subject matter that

should appear in the CILRT report. Until a satisfactory submittal is obtained, this item will remain OPEN (83-22-01).

No items of noncompliance or deviations were identified.

9. 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 July 1983, the resident inspectors attended outage status meetings. These meetings are held by the Planner-Scheduler to provide all disciplines onsite with an update on the plant status and on-going maintenance work.

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

a. Plant Staffing Concerns.

b. Plant Status/Modification Status.

c. Fire Protection - Implementation of Appendix R.

d. Procedure Adherence (Reviewed AP-1).

e. TMI Training.

f. OTSG tube examination records were inspected and discussed with Quality Assurance Personnel. Even though the exams were performed a couple of months early, no safety significance existed because the plant was in an extended outage situation.

g. T.S. Table 4.1-1 was reviewed for compliance. The inspector noted that a Technical Specification change for items 48a and b to correct a typographical error had not been approved. Until proposed Amendment 97 is issued, this item will remain Unresolved. (83-22-02)

No items of noncompliance or deviations were identified.

10. Unresolved Item

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable items, items of noncompliance, or deviations. An unresolved item disclosed during the inspection is discussed in paragraph 9.

11. Media Contacts

During the month of July 1983, the inspectors communicated with the following organizations and/or persons on items of interest with respect to Rancho Seco operations:

a. Channel 3 - Mr. Tom DuHain.

b. Sacramento Bee - Mr. Ted Bell.

12. Exit Interview

The inspectors met with licensee representatives (denoted in paragraph 1) throughout the month and at the conclusion of the inspection on August 1, 1983, and summarized the scope and findings of the inspection activities. The licensee acknowledged the inspectors findings.

No items of noncompliance or deviations were identified, but one unresolved item was discussed. (See paragraph 9)