

U. S. NUCLEAR REGULATORY COMMISSION

REGION V

Report No. 50-312/82-36

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

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: September 14-30, 1982

Inspectors: Talbert Young Jr. for 10-6-82
Harvey L. Canter, Senior Resident Inspector Date Signed

Talbert Young Jr. for 10-6-82
John O'Brien, Unit Resident Inspector Date Signed

Approved by: Talbert Young Jr. 10-6-82
Tolbert Young, Jr. Chief, Reactor Projects Date Signed
Section No. 2, Reactor Projects Branch No. 1

Date Signed

Summary:

Inspection between September 14-30, 1982 (Report No. 50-312/82-36)

Areas Inspected: Operational safety verification; maintenance observations; surveillance observations; licensee event report follow-up; follow-up on items of noncompliance; follow-up on regional requests; plant trips and independent inspection effort. The inspection activities involved 100 inspector hours by the resident inspectors.

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

DETAILS

1. Persons Contacted

- *R. Rodriguez, Manager, Nuclear Operations
- *P. Oubre', Plant Superintendent
 - D. Blachly, Operations Supervisor
 - N. Brock, Electrical/I&C Maintenance Supervisor
 - R. Colombo, Technical Assistant
- *G. Coward, Maintenance Supervisor
 - S. Crunk, Associate Nuclear Engineer
- *J. Edwards, Assistant to Technical Assistant
 - W. Jurkovich, Site Resident Engineer (Generation Engineering)
 - F. Kellie, Assistant Chemistry and Health Physics Supervisor
 - R. Lawrence, Mechanical Maintenance Supervisor
- *R. Miller, Chemistry/Radiological Supervisor
 - J. Newey, Senior Chemical and Radiation Assistant
 - T. Perry, Onsite Quality Assurance Supervisor
 - J. Price, Surveillance Test Coordinator
 - S. Rutter, Quality Assurance Engineer
- *S. Redeker, S. T. A. Supervisor
 - L. Schwieger, Quality Assurance Director
- *B. Spencer, Shift Supervisor
 - T. Tucker, Planner/Scheduler
 - J. Uhl, Mechanical Engineer
 - D. Whitney, Engineering and Quality Control Supervisor
- *B. Wichert, Plant Mechanical Engineer
 - W. Wilson, Senior Chemical and Radiation Assistant

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 September 30, 1982.

2. Operations Safety Verification

The plant operated at or near full power for the inspection period except for the time the plant was shutdown due to plant trips (see paragraph 8). Plant reactor power was reduced to approximately 10 percent numerous times due to turbine Auto-Stop Oil system problems.

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 condition, 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 fire suppression system and emergency power system to verify operability, and witnessed portions of the radioactive waste system controls associated with radwaste barreling.

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) Diesel Fire pump (P996) overhaul.
- (b) "A" Diesel generator air start system inspection and repair.
- (c) "B" Diesel generator air start system inspection and repair.
- (d) Core flood tank pressure transmitter repair and calibration.

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 a 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 synchronization test.
- (b) SP206.03B - Monthly "B" diesel generator synchronization test.
- (c) SP205.07A - Quarterly Isolation valve surveillance.

- (d) SP201.03B - Plant Fire system (P996) - diesel driven.
- (e) SP210.03A - Turbine Steam Stop valves.

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 IE 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 operations in violation of regulatory requirements or license conditions.

(a) LER 82-21-LO (CLOSED) Reactor Building Tendon Surveillance Procedural Error

On August 11, 1982, it was reported that the tendon surveillances performed by VSL Corporation in July and August 1982 were not performed according to the written procedures or the Technical Specifications (TS). I.e., the visual inspection of the modified tendons was performed before the tensile pull test even though the procedures and Technical Specifications imply that tensile pull test should be performed prior to the visual inspections. The inspector verified that an engineering review was performed to establish structural integrity of the affected tendons. The calculations verified strand continuity by doing a comparison of predicted and observed elongations and forces measured during retensioning of the affected tendons.

Because this Technical Specification violation fits the requirements in Appendix C to 10 CFR 2, Section IV.A, for noncitable events, a notice of violation has not been issued, and this item is CLOSED.

(b) LER 82-19-LO (OPEN) CRD Breaker Malfunction

This LER described in failure with a General Electric Type AK-2A-25-1 control rod drive a-c breaker. Corrective action consisted of replacing the suspect breaker with one from spares.

Since, as noted in the LER, the CRD breaker scheme provides for redundant means to ensure a rod trip and since the plant was in cold shutdown during this event, the licensee's action was appropriate and the safety significance minimal.

However, in examining the licensee's history files for this type of breaker and the d-c General Electric Type AK-2A-25-2 breakers used in the d-c trip circuit for the Control Rods, there appears to be some problems of generic concern. First, an opening spring has fallen off its locator pin a few times according to discussions with technicians who have worked on these breaker types. This may prevent one from resetting the breaker after it has tripped open or it may not allow the breaker to open at all. Second, a shunt trip paddle was out of adjustment, such that the breaker could not open when required.

On April 17, 1979, the NRC issued an Inspection and Enforcement Bulletin (IEB 79-09) which addressed a number of problems with these breaker types. This bulletin did not address the two problems discussed above.

Therefore, the review of this LER will remain open pending possible further action on the part of the NRC.

No items of noncompliance or deviations were identified.

6. Follow-up on Item of Noncompliance

Item 82-28-01 (CLOSED): Failure to Follow QA Procedures

Based on the response dated September 9, 1982, to a citation issued in NRC Report 50-312/82-28, this item is CLOSED. The corrective action with respect to identifying commercial grade items on purchase orders is being followed. Also, training of selected personnel on the use of the revised Quality Assurance Procedures was given on August 31, 1982.

In addition, changes to the Quality Assurance Manual dated August 18, 1982, and September 24, 1982, attempt to clarify past problems with the classification of systems and components at Rancho Seco.

Item 82-28-01 is CLOSED and no other items of noncompliance or deviations were identified.

7. 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) Plant parameters for Region V Emergency Procedures.
- (b) Nuclear Service Electric Building construction status.
- (c) Radwaste shipments.

No items of noncompliance or deviations were identified.

8. Plant Trips

On September 16, 1982, the plant tripped from approximately 40 percent power. While the plant was operating near full power, a hole developed in a 1-inch mini flow bypass line in the discharge of the "A" boiler feed pump which required the pump to be shut down.

Plant power was reduced to continue operation with the "B" boiler feed pump supplying feed water; however, moisture from the feed-water leak affected the controller for the "B" feed pump, causing it to trip. The Reactor tripped from the resulting RCS high pressure at approximately 7:50 p.m. (PDT). The Auxiliary Feed system functioned as required following the trip. No other Engineered Safety Features systems were challenged. The mini flow bypass line was repaired, along with other maintenance items. The plant was returned to 10 percent power, and turbine balancing was performed on September 17, 1982. The plant returned to full power operation on September 18, 1982. The resident inspectors verified the licensee adequately identified casual factors; took appropriate corrective actions and attained full compliance with plant procedures and limiting conditions for operations described in the Technical Specifications.

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 September, 1982, the Resident Inspectors attended operations status meetings. These meetings are held by the Plant Superintendent to provide all supervisors onsite with an update on the plant status and ongoing maintenance work.

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

- (a) Annunciator indication of diesel generator field flash circuitry status.
- (b) Nuclear Service Electric Building construction.
- (c) Quality Assurance Manual Procedure change review.
- (d) Surveillance Procedure change review.
- (e) Emergency Procedure change review.
- (f) Storage of QA Class 1 components.

No items of noncompliance or deviations were identified.

10. Exit Interview

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