

U. S. NUCLEAR REGULATORY COMMISSION

REGION V

Report No: 50-312/85-36

Docket No. 50-312

License No. DPR-54

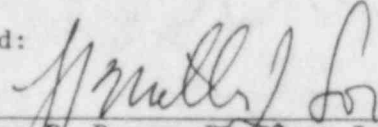
Licensee: Sacramento Municipal Utility District
P. O. Box 15830
Sacramento, California 95813

Facility Name: Rancho Seco Unit 1

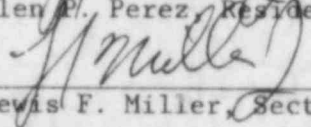
Inspection at: Herald, California (Rancho Seco Site)

Inspection conducted:

Inspectors:


Glen P. Perez, Resident Inspector

2-18-86
Date Signed


Lewis F. Miller, Section Chief

2-18-86
Date Signed

Summary:

Inspection between December 18, 1985 and January 24, 1985 (Report 50-312/85-36)

Areas Inspected: This routine inspection by the Resident Inspector and Regional based inspectors involved the areas of operational safety verification, maintenance, and surveillance. Also a special enhanced control room and plant operation inspection was performed. During this inspection, Inspection Procedures 61726, 62703, 71707, 71710, 64703, 71715, 90712, 92703, 93702 and 92701 were used.

This inspection involved 941 hours including 219 hours on backshift onsite.

Results: Of the areas inspected, no violations were identified.

DETAILS

1. Persons Contacted

a. Licensee Personnel

*G. Coward, Manager, Nuclear Plant
*J. McColligan, Assistant Manager, Nuclear Plant
*S. Redeker, Nuclear Operations Manager
*J. Shetler, Nuclear Scheduling Manager
B. Spencer, Nuclear Operations Superintendent
*M. Price, Nuclear Mechanical Maintenance Superintendent
N. Brock, Nuclear I&C Maintenance Superintendent
*R. Colombo, Regulatory Compliance Superintendent
*J. Field, Nuclear Technical Support Superintendent
*S. Crunk, Incident Analysis Group Supervisor
J. Jurkovich, Site Resident Engineer
*F. Kellie, Acting Chemical and Radiation Supervisor
L. Schwieger, Quality Assurance Manager
M. Hieronimos, Assistant to the Operations Superintendent
D. Comstock, Assistant to the Operations Superintendent
*J. Jewett, Site QA Supervisor

Other licensee employees contacted included technicians, operators, mechanics, security and office personnel.

b. NRC Inspectors participating in the Inspection Effort:

W. Albert	M. Padovan
P. Qualls	J. Eckhardt
J. Burdoin	C. Myers
C. Bosted	A. Hon
G. Kellund	A. Toth
P. Morrill	J. O'Brien
P. Phelan	M. Cillis

*Attended the Exit Meeting on January 25, 1986.

2. Operational Safety Verification

At the start of this report period the plant was at 100% power. On December 22, 1985, the plant experienced a packing leak of approximately 20 gallons per minute from a safety features pressurizer liquid sample line isolation valve, SFV-70001, inside containment. The licensee classified the leak as an Unusual Event and brought the plant to a hot shutdown condition and made repairs. Subsequent to the plants' return to power, the plant tripped due to high reactor coolant pressure. This transient was initiated by a loss of integrated control system power. Details are discussed in paragraph 7. The plant was brought to a cold shutdown condition and remained shutdown throughout the report period.

The inspectors observed Control Room operations, verified proper control room staffing, reviewed applicable logs, conducted discussions with the operations crews, reviewed selected emergency systems, reviewed tag-out records, verified proper removal from service of affected components, and verified the licensee's adherence to limiting conditions for operations.

Tours of the auxiliary building, turbine building, and the general site area were conducted to observe plant equipment levels and excessive vibrations, and to verify that maintenance requests had been initiated for equipment in need of maintenance.

The inspectors reviewed portions of non-licensed operator logs, conducted various discussions with the non-licensed operators and observed them performing their assigned duties.

During tours of the facility, the inspectors frequently entered radiologically controlled areas. The inspectors verified compliance with the licensee's radiation protection program. The inspectors discussed the radiation work permit requirements and the radiological conditions of the work areas with workers in the radiologically controlled areas. Also, the inspectors verified proper clothing requirements and observed the method of personal frisking when exiting radiological controlled areas. The inspectors randomly examined selected radiation protection instruments to verify operability and adherence to calibration frequency.

The physical security plan was evaluated on a daily basis during this period by observing security performance during the inspector's daily entry through the monitoring area, wearing of photo identification badges by personnel, escorting of visitors, and security compensatory measures when security doors were out of service.

The licensee took adequate corrective action to eliminate the deficiencies the inspectors identified during this inspection period.

No violations or deviations were identified.

3. Monthly Surveillance Observation

Two Technical Specification (TS) required surveillance tests were observed and reviewed to ascertain that they were conducted in accordance with these requirements.

The following items were considered during this review: testing was in accordance with adequate procedures; test instrumentation was calibrated; limiting conditions for operation were met; removal and restoration of the affected components were accomplished; test results conformed with TS and procedure requirements and were reviewed by personnel other than the individual directing the test; the reactor operator, technician or engineer performing the test recorded the data and the data were in agreement with observations made by the inspector, and that any deficiencies identified during the testing were properly reviewed and resolved by appropriate management personnel.

Portions of the A and B diesel generator surveillance were observed and reviewed, as were portions of the daily surveillances performed by the operators. Also a special test was observed and reviewed that tested the B main feedwater pump ramp function. The tests were satisfactorily performed.

No violations or deviations were identified.

4. Monthly Maintenance Observations

Station maintenance activities of safety-related and non-safety-related systems and components listed below were observed and reviewed to ascertain that they were conducted in accordance with approved procedures, regulatory guides and industry codes or standards and in conformance with technical specifications.

The following items were considered during this review: the limiting conditions for operation were met while components or systems were removed from service; approvals were obtained prior to initiating the work; activities were accomplished using approved procedures and were inspected as applicable; functional testing and/or calibrations were performed prior to returning components or systems to service; activities were accomplished by qualified personnel; radiological controls were implemented; and, fire prevention controls were implemented.

The following maintenance activities were observed and/or reviewed:

- . Makeup pump disassembly;
- . SFV-70001/SFV-70003, pressurizer liquid sample isolation valve repacking;
- . Valve Stroking torque measurements on FWS-119;
- . Preventive Maintenance on P16284, condensate mini-flow indicator;
- . Removal of a condensate pump B electrical connection box;

During the observation of the condensate mini-flow indication calibration, the inspector noted that the technicians were recording the data on a piece of scratch paper. When questioned by the inspector, the technician stated that they would take their notes back to the shop and record the values on a more formal document. The inspector also noted that the preventive maintenance documentation did not have a procedure or maintenance approval sign off sheet attached to the work package. A review of the procedures on plant maintenance revealed that preventive maintenance for non-safety related equipment was not required to have the same formal documentation as safety related maintenance. This was discussed with maintenance management and it was acknowledged that the licensee was aware of the situation. They explained the steps that were being taken to increase the preventive maintenance staff and generate an improved program for the control of preventative maintenance.

The inspector verified that the maintenance data noted above had been placed in the proper maintenance record sheets and that maintenance supervisor had reviewed the completed work package.

No violations or deviations were identified.

5. Fire Protection

a. Procedure Review

The inspector reviewed licensee progress in revising their fire protection Administrative procedures. These procedures were undergoing revision at the time of the August 1985 Appendix R inspection (50-312/85-22). The procedures were reviewed against the guidance given in the Standard Review Plan Section 9.5.1. and were awaiting final approval at that time. The procedural changes, which would more clearly conform to the guidelines delineated in the Standard Review Plan were still not approved on January 16, 1986. The licensee stated that the procedure format was being restructured. Review of these procedure changes will be accomplished in a later inspection (50-312/85-36-01).

b. Fire Door Installation

The inspector observed the installation of a fire door assembly in the NSEB. The workers adhered to good work practices and installed the door properly in accordance with NFPA Code 80.

No violations or deviations were identified.

6. Enhanced Control Room and Plant Operation Observation Inspection

This inspection was a continuation of an inspection which commenced on November 2, 1985, details describing the inspection plan can be found in Inspection Report 50-312/85-32.

During the inspection which continued till the plant was in cold shutdown, December 28, 1986, the following were observed: shift turnovers, the licensee's response to a 20 gpm leak from a pressurizer sample line valve, hanging of clearances, control room watch standing, plant tours, and the activities associated with placing the plant in a cold shutdown condition.

No violations or deviations were identified.

7. Plant Trip on December 26, 1985

On December 26, 1985 at 4:14 am, while operating at 70% full power the plant experienced a reactor/turbine trip from high reactor coolant pressure. The sequence of events was initiated by a loss of DC power to the Integrated Control System (ICS). This resulted in plant heatup and a subsequent reactor trip. The plant then experienced a rapid cooldown, followed by plant stabilization. An Unusual Event was declared.

Due to the significant nature of the event, the Regional Office issued a Confirmatory Action Letter which states that Rancho Seco will remain in the shutdown condition until a root cause analysis is completed by the licensee and a briefing is provided to the NRC giving the results of this analysis and the licensee's justification for return to power. In addition, an Augmented Investigation Team (AIT) was dispatched to the site on December 27, 1985 to begin an investigation of the events surrounding the transient. Based on the initial investigation by the AIT, the team was upgraded to an Incident Investigation Team (IIT) on December 30, 1985.

The IIT's investigation report will be issued in mid-February, 1986. The regional and resident staff has continuously reviewed the licensee's investigation and troubleshooting. Details of the investigation, corrective actions, and activities associated with plant restart will be detailed in a future inspection report (50-312/86-07).

8. Exit Meeting

The resident inspector met with licensee representatives (denoted in paragraph 1) at various times during the reporting period and formally on January 24, 1986. The scope and findings of the inspection activities as given in this report, were summarized at the meeting. The licensee representatives acknowledged the inspectors' findings.