U. S. NUCLEAR REGULATORY COMMISSION

REGION V

Report No. 50-312/90-17

Docket No. 50-312

License No. DPR-54

Licensee: Sacramento Municipal Utility District
14440 Twin Cities Road
Herald, California 95638-9799

Facility Name: Rancho Seco Nuclear Generating Station

Inspection at: Herald, California (Rancho Seco Site)

Inspection conducted: November 10, 1990 through December 7, 1990.

Inspectors: C. J. Myers, Resident Inspector

Approved By: Howard J. Wong 1/8/91
H. Wong, Chief Date Signed
Reactor Projects Section II

Summary:

Inspection between November 10 and December 7, 1990 (Report 50-312/90-17)

Areas Inspected: This routine inspection by the Resident Inspector involved the areas of operational safety verification, health physics and security observations, maintenance, surveillance and testing, and quality assurance. During this inspection, Inspection Procedures 71707, 61726, 62703, 71710 and 30703 were used.

DETAILS

1. Persons Contacted

a. Licensee Personnel

D. Keuter, Assistant General Manager (AGM), Nuclear
*J. Shetler, Deputy AGM and Nuclear Plant Manager
P. Turner, Manager, Nuclear Technical Services
D. Brock, Manager, Nuclear Maintenance
S. Redeker, Manager, Nuclear Operations
C. Linkhart, Manager, Nuclear Support Services
L. Houghtby, Manager, Nuclear Security
M. Bua, Manager, Nuclear Radiation/Environmental Protection
G. Delezenski, Supervisor, Nuclear Licensing

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

*Attended the Exit Meeting on December 7, 1990.

2. Operational Status of Rancho Seco

During this inspection period, the plant remained shutdown and defueled. All fuel assemblies have been stored in the spent fuel pool. The reactor coolant system and steam generators are being maintained in a wet layup condition. The main turbine, condenser and feedwater systems are layed up dry with dehumidifiers installed. Most of the hardware modifications for systems layup have been completed.

3. Operational Safety Verification (71707)

The inspector reviewed control room operations which included access control, staffing, observation of system alignments, procedural adherence, and log keeping. Discussions with the shift supervisors and operators indicated an understanding by these personnel of the reasons for annunciator indications, abnormal plant conditions and maintenance work in progress. The inspector also verified, by observation of valve and switch position indications, that safety systems were properly aligned as required by technical specifications for plant conditions.

Tours of the auxiliary, reactor, and turbine buildings, 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. The inspector also observed plant housekeeping and cleanliness, looked for potential fire and safety hazards, and observed security and safeguards practices.

During work activities, it appeared that the health physics managers were conducting plant tours and monitoring work in progress. They appeared aware of significant work which occurred during this period.

The inspector's Radiation Work Permit (RWP) review revealed that the RWP did include: job description, radiation levels, contamination, airborne radioactivity (if expected), respiratory equipment, protective clothing, dosimetry, special equipment, RWP expiration, health physics (HP) coverage, and signatures. The RWP radiation and contamination surveys were kept current. Employees understood the RWP requirements.

The inspector observed that personnel in the controlled areas were wearing the proper dosimetry and personnel exiting the controlled areas were using the monitors properly. Labeling of containers appeared appropriate.

The inspector walked down portions of the protected and vital area boundaries to ensure that they were intact and that security personnel were properly posted where known deficiencies existed. The inspector also observed protected area access control, personnel screening, badge issuing and maintenance on access control equipment. Access control was observed. Personnel entering with packages were properly searched and access control was in accordance with licensee procedures. The inspector observed no obstructions in the isolation zone which could conceal a person or interfere with the detection/assessment system. Protected area illumination appeared adequate.

No violations or deviations were identified.

4. ESF System Walkdown (71710)

During the inspection period the inspector walked down the spent fuel pool cooling system.

The inspector concluded that:

- All observed hangers and supports were properly made up and aligned.
- Housekeeping was adequate.
- No excessive packing leakage was observed on valves.
- Major system components were properly labeled, lubricated and cooled. No excessive leakage was apparent.
- Instrumentation appeared to be properly install
- No out of calibration gauges were identified.
- Flow path components appeared to be in the correct position.
- Required support systems were available.
- Proper breaker and switch positions were verified.

No violations or deviations were identified.

5. Monthly Surveillance Observation (61726)

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

The following surveillance activities were observed:

- Testing of the radwaste blender/dryer
- SP.32A Loop A Decay Heat Removal System Quarterly Surveillance
- STP 1320 Spent Fuel Pool Decay Heat Load Test

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 was 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.

Preliminary results of the decay heat load in the spent fuel pool indicate a heat load of 1.4E6 BTU/HR. The licensee estimates it would take approximately 10 days for the temperature of the spent fuel pool to increase from 85°F to 140°F, without the spent fuel pool cooling system in operation. The maximum temperature expected under these conditions is 160°F.

The licensee identified that for a short interval (approximately three weeks) steam generator samples had been misidentified. Weekly steam generator samples should have been taken. However, because of changes made in the frequency in changeover for recirculation of the steam generators and the common sample line used to obtain the samples, a weekly sample from each steam generator was not taken. Samples were taken each week from one steam generator rather than from each steam generator. Subsequent samples showed that steam generator chemistry remained within specified requirements. It appears this problem occurred due to the lack of adequate communications between the Operations and Chemistry Departments.

No violations or deviations were identified.

6. Monthly Maintenance Observation (62703)

Maintenance activities for the systems and components listed below were observed and reviewed to ascertain that they were conducted in accordance with approved procedures, regulatory guides, industry codes or standards, and the Technical Specifications.

- Radwaste blender/dryer installation

- Spent fuel pool leakage instrumentation modification

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 or calibration was 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.

No violations or deviations were identified.

7. Meeting Attendance

The inspector attended a meeting of the licensee's Board of Directors Finance Committee on November 15, 1990, at SMUD headquarters in Sacramento. The Finance Committee presentation included the planned 1991 nuclear budget and a proposed increase of the annual contribution to the decommissing fund (from two million dollars to eight million dollars).

8. Exit Meeting (30703)

The inspector met with licensee representatives (noted in paragraph 1) at various times during the report period and formally on December 7, 1990. The scope and findings of the inspection activities described in this report were summarized at the meeting. Licensee representatives acknowledged the inspector's findings at that time.