



UNITED STATES
 NUCLEAR REGULATORY COMMISSION
 REGION II
 101 MARIETTA ST., N.W., SUITE 3100
 ATLANTA, GEORGIA 30303

Report Nos. 50-327/81-17 and 50-328/81-19

Licensee: Tennessee Valley Authority
 500A Chestnut Street
 Chattanooga, TN 37401

Facility Name: Sequoyah

Docket Nos. 50-327 and 50-328

License Nos. DPR-77 and CPPR-73

Inspection at Sequoyah Nuclear Plant near Daisy, Tennessee

Inspectors:

G. L. Troup
 G. L. Troup

5/6/81
 Date Signed

T. R. Collins
 T. R. Collins

5/6/81
 Date Signed

Approved by:

C. M. Hosey
 C. M. Hosey, Acting Section Chief
 Technical Inspection Branch
 Engineering and Technical Inspection Division

5/6/81
 Date Signed

SUMMARY

Inspected on April 21-24, 1981

Areas Inspected

This routine, unannounced inspection involved 58 inspector-hours onsite in the areas of radiation protection and radioactive waste management covering startup and operations for Unit 1 and preoperational testing and plant status for Unit 2.

Results

Of the areas inspected, no violations of NRC requirements or deviations were identified.

REPORT DETAILS

1. Persons Contacted

Licensee Employees

*J. M. McGriff, Jr., Assistant Plant Superintendent
W. T. Cottle, Assistant Plant Superintendent
W. H. Kinsey, Jr., Results Supervisor
*R. J. Kitts, Health Physics Supervisor
*W. M. Halley, Pre-op Test Section Supervisor
R. W. Fortenberry, Reactor Engineering Unit Supervisor
R. J. Price, Assistant Health Physics Supervisor
M. A. Skarzinski, Assistant Pre-op Test Section Supervisor
R. R. Gibbs, Reactor Engineer
J. M. Hereford, Instrument Engineer
T. L. Howard, QA Engineer
J. Reagan, Shift Health Physics Supervisor

Other licensee employees contacted included 3 technicians.

NRC Resident Inspector

E. J. Ford
S. D. Butler

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on April 24, 1981 with those persons indicated in paragraph 1 above. Regarding the status of Unit 2 preoperational tests, the inspectors discussed those procedures which would impact on schedules for fuel loading and criticality.

3. Licensee Action on Previous Inspection Findings

(Closed) Noncompliance with Department of Transportation Regulations. This item was identified in RII Report Nos. 50-327/80-30 and 50-328/80-17 and dealt with the shipment of waste casks without bracing of the load as required by 49 CFR 173.392(c)(6). An inspector reviewed the corrective actions contained in the TVA letter dated October 9, 1970 and verified that RCI-7, "Shipment of Radioactive Materials" had been revised as stated. This item is closed.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. Startup Tests and Surveys

- a. Test procedure SU-1.0, "Plant Measurements Operational and Baseline Data" includes radiation survey and shielding effectiveness tests, chemical and radiochemical analyses and effluent monitor tests. Test results for post-fuel loading, zero power, and 10% power were reviewed previously (RII Report No. 50-327/80-41). An inspector reviewed the test packages for 30%, 50%, 75%, and 90% power and determined that each test was authorized to be performed, test results were reviewed and test deficiencies were identified and resolved or accepted with proper approvals. A licensee representative informed the inspector that the test packages would be combined into one report and submitted for final approval once the 100% test package is complete. The inspector stated that he had no question on the test packages reviewed and would review the 100% power test package during a subsequent inspection.
- b. In RII Report No. 50-327/80-41, paragraph 5, open item 80-41-01 was identified concerning the development of a list or map of containment penetrations for use during the shield survey. The inspector discussed this item with the cognizant supervisor, who explained that a map of the containment penetrations had been prepared and special surveys conducted at 50% power and at subsequent power levels to identify any radiation streaming around the penetrations. The inspector reviewed the special survey results for 50% power and informed licensee management that open item 80-41-01 was closed.

6. Reactor Coolant Chemistry - Unit 1

- a. Technical Specification 3.4.7 and 3.4.8 specify the requirements for reactor coolant chemistry and specific activity, respectively. Technical Specification Tables 4.4-3 and 4.4-4 specify the surveillance requirements for these parameters.
- b. An inspector reviewed plant chemistry records for various periods to determine that the surveillances were performed at the required intervals, results were within specification limits or corrective action taken, and the results were reviewed in accordance with the licensee's procedural requirements. No violations of NRC requirements were found.
- c. Procedures reviewed and the time periods of the review were:
 - (1) SI-50, "72-hour Chemistry Requirements": November 80 and January 81
 - (2) SI-51, "Weekly Chemistry Requirements": January and March 81
 - (3) SI-52, "Monthly Chemistry Requirements": January and February 81

- (4) SI-55, "Reactor Coolant Dose Equivalent Iodine-131 Activity Concentration Determination": January, February and March 81.

7. Facilities - Unit 2

From the available health physics related facilities, an inspector chose the following for consideration:

- a. Health Physics Office. The health physics office is by design a common facility and, at present, appears to be adequate for safe plant operation. A licensee representative stated that present plans call for this facility to be shared for both Units 1 and 2. The inspector had no further questions concerning this facility.
- b. Anti-Contamination Protective Clothing. At present the protective clothing storage areas on Unit 1 are adequate for plant personnel use. A licensee representative stated that present plans call for adding additional protective clothing storage areas and sharing the existing protective clothing on Unit 1 for start-up of Unit 2. The inspector had no further questions concerning this facility.
- c. A licensee representative explained that other facilities are common to both units and are in use for Unit 1.

8. Posting, Labeling and Control

An inspector reviewed the licensee's posting and control of radiation areas, high radiation areas, contamination areas and radioactive materials areas and the labeling of radioactive material during tours of the plant. No violations or deviations were observed.

9. Instruments and Equipment

An inspector observed a variety of radiological instruments (portable survey instruments, portal monitors, personnel friskers, pocket dosimeters) in use and available for use; checked calibration stickers, performed battery checks for selected portable instruments in the health physics office, and response checked selected portable instruments for proper operation. The inspector discussed the radiation survey instrument calibration program with licensee representatives. The inspector had no further questions.

10. General Employee Re-training

An inspector reviewed the general employee retraining program by participating in the badging process. Training material inspected included video tapes on general health physics and site security.

Lecture material concentrated on site specific health physics practices, security matters and respirator protection training. Demonstrations of correct anti-contamination clothing dress procedures and use of SCBA equipment was conducted with a training demonstration. A written examination was administered following the 4 hour presentation.

The inspector commented to the licensee that the present training facility is poor because of high noise encountered from surrounding offices and equipment. A licensee representative stated that future plans were to build a permanent facility for conducting general employee training and retraining. The inspector had no further questions.

11. Radiation Surveys and Contamination Control

The inspector had the licensee perform selected radiation and contamination surveys inside the regulated area to verify the control of radiation and contamination. The results of these radiation surveys were within the licensee's administrative specifications. The inspector had no further questions.

12. Filter Tests - Unit 1 (50-327/80-08-03)

a. This item was originally discussed in RII Report No. 50-327/80-08, paragraph 12 and dealt with the review of the leak tests of HEPA filters and charcoal absorber systems. An inspector reviewed the plant recorders for the testing of various filter systems and determined that the test results met the performance requirements and were reviewed and approved as required. The inspector informed the licensee management representatives that item 327/80-08-03 was closed.

b. Filter test procedures reviewed were:

- (1) SI-132, "Auxiliary Building Gas Treatment System Filter Train Test"
- (2) SI-142, "Emergency Gas Treatment System Filter Train Test"
- (3) SI-143, "Control Building Emergency Air Cleanup System Filter Train Test Requirements"
- (4) SI-506.07, "Containment Purge Air Exhaust Filter Test"

13. Pre-operational Tests - Unit 2

An inspector discussed the status of nine preoperational tests relating to radiation monitors, ventilation systems and sampling with licensee representatives. Of the nine procedures, only one procedure was complete. The inspected review test TVA-9c, "Auxiliary Building Heating, Ventilating and

Cooling System" and determined that the test had been completed, identified deficiencies were documented and evaluated and the completed procedure approved. A licensee representative stated that the test package had been forwarded to Engineering Design for review and approval prior to final approval of the package. The inspector stated that the status of the other test procedures would be reviewed during a subsequent inspection.

14. Radiation Protection Procedures - Unit 2

An inspector discussed the status of radiation protection procedures for Unit 2 with the cognizant supervisor. The supervisor informed the inspector that the procedures in effect for Unit 1 are also applicable to Unit 2 and that no procedures are required specifically for Unit 2. The inspector reviewed five radiological control instructions (RCI's) and noted that the contents were applicable to the site rather than a specific unit; the inspector had no further questions.

15. Other Previously Identified Items

a. (Open) Radiofrequency Interference with Radiation Monitors (327/80-08-01)

An inspector discussed the problem of interferences with radiation monitors with licensee representatives. A licensee representative informed the inspector that corrective actions being undertaken included local grounding of the detectors and running the signal cables in conduit to shield the cables from radiofrequency interferences. This work will be accomplished on Unit 2 monitors also, but is incomplete on both units. The inspector stated that this item would remain open and would be reviewed during a subsequent inspection.

b. (Closed) Filter System Installation

Four open items were identified in RII Report Nos. 50-328/79-26 and 50-328/79-45, dealing with the installation of filter systems. The filter systems in question are shared systems for Unit 1 and Unit 2. The installation was inspected and the open items closed for Unit 1 in RII Report No. 50-327/30-16. For record purposes, open items 328/79-26-01, 328/79-26-02, 328/79-48-01 and 328/79-48-02 are closed.

c. (Closed) Item (50-327/80-41-03) Special Work Permit (SWP) Issuance Log Book.

An inspector reviewed a Special Work Permit (SWP) Log Book for the issuance and control of outstanding SWP's. The purpose of this log book is to inform the Health Physics personnel what current jobs are being performed and where HP surveillance should be maintained and acted upon by technicians rotating through the job sites. The inspector had no further questions.