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

APR 28 1982

Report Nos. 50-327/82-07 and 50-328/82-06

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

Facility Name: Sequoyah Nuclear Plant

Docket Nos. 50-327 and 50-328

License Nos. DPR-77 and DPR-79

Inspection at Sequoyah site near Chattanooga, Tennessee

Inspector: K. P. Barr for T. R. Collins 4/26/82
T. R. Collins Date Signed

Approved by: K. P. Barr 4/26/82
K. P. Barr, Section Chief Date Signed
Technical Inspection Branch
Division of Engineering and Technical Programs

SUMMARY

Inspection on April 5-9, 1982

Areas Inspected

This routine, unannounced inspection involved 32 inspector-hours on site in the areas of radiation protection and radwaste management.

Results

Of the two areas inspected, no violations or deviations were identified in these areas.

REPORT DETAILS

1. Persons Contacted

   Licensee Employees

   C. M. Mason, Plant Superintendent
   *J. M. McGriff, Assistant Plant Superintendent
   *R. A. Beck, Health Physics Supervisor
   *D. Romine, Compliance Engineer
   D. Crisp, Acting Assistant Health Physics Supervisor
   J. Reagen, Health Physics Shift Foreman
   D. E. Crawley, Health Physics Shift Foreman
   E. Paris, Health Physics Shift Foreman
   J. Leamon, Health Physics Shift Foreman
   J. S. Steigelman, Health Physics Shift Foreman

   Other licensee employees contacted included two technicians and three office personnel.

   NRC Resident Inspector

   *E. J. Ford
   *S. D. Butler

   *Attended exit interview

2. Exit Interview

   The inspection scope and findings were summarized on April 9, 1982, with those persons indicated in paragraph 1 above. The inspector's comments and concerns were acknowledged by the Assistant Plant Superintendent.

3. Licensee Action on Previous Inspection Findings

   (Closed) 50-327/81-41-01 and 50-328/81-50-01 (V10) - Failure to take adequate air samples of containment to identify actual levels of radioactivity in air. The inspector reviewed an intensive containment air sampling program completed by the licensee to properly review and evaluate air sample analysis. The inspector concluded that this program evaluation appears to be adequate and had no further questions.

4. Unresolved Items

   Unresolved items were not identified during this inspection.

5. Inspector Followup Items

(Open) 80-08-01 (IFI) - Radiofrequency interference with radiation monitors. The inspector reviewed the Design Change Request (DCR) issued to eliminate radiofrequency problems and grounding problems with radiation process and effluent monitors. The inspector concluded the DCR appeared to be adequate but the item will be kept open until the problems are actually eliminated.

(Open) 81-41-02 (IFI) - SWP program evaluation. At the time of this inspection, the SWP program evaluation was not complete and the inspector informed licensee personnel that it would be reviewed upon the next inspection.

6. Startup Tests and Surveys

FSAR Table 14.1-2, List of Startup Tests. This table lists those tests to be performed following fuel loading and during power ascension along with prerequisites for each test, test objectives, and acceptance criteria. Included in these tests are the chemical and radiochemical baseline analyses, radiation survey and shielding effectiveness tests and effluent monitor tests.

The inspector reviewed test Procedure SU-1.0, Unit 2 radiation baseline survey at 10% power to 100% power to determine that the design shielding is adequate for safe plant operation and to keep personnel radiation exposures ALARA. The inspector reviewed all survey results as required by SU-1.0, Unit 2 Radiation Baseline Survey, and concluded the shielding appeared to be adequate with the exception of survey points RB-32 and RB-57. These two survey points exceeded the acceptance criteria of less than 100 mrem/hr as required by test Procedure SU-1.0. The licensee has issued test deficiencies identifying these areas as unacceptable and additional shielding needed to reduce the dose rate to less than 100 mrem/hr. The inspector reviewed these test deficiencies and informed licensee management personnel this would be reviewed again upon the next inspection (328/82-06-01).

7. Respiratory Protection Program

The inspector reviewed the respiratory protection program which included proper storage of full face respirators, monthly inspections of self contained breathing apparatuses (SCBA), hydrostatic tests of breathing air cylinders, respirator training of personnel, annual respiratory physicals for personnel, and breathing air quality analysis as required by NUREG-0041. The inspector concluded that the respiratory protection program appeared to be adequate and had no further questions.

8. Posting, Labeling and Control

The inspector toured both Units 1 and 2 auxiliary buildings to ensure proper posting and labeling of contaminated areas, radioactive materials areas, radiation areas, and high radiation areas. The inspector determined that

the posting, labeling and control appeared to be adequate and had no further questions.

9. Instruments and Equipment

The inspector observed a variety of radiological instruments (portable survey instruments, portal monitors, personnel friskers) in use and available for use. The inspector 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. Decontamination of Protective Clothing

The inspector selected several items of protective clothing for reuse from the laundry area to check for acceptable levels of radioactivity for reuse. The licensee's administrative limit for reuse of protective clothing is 0.75 mrad/hr. The inspector concluded that the levels of radioactivity were within the licensee's administrative limit and had no further questions.

11. Radioactive Source Inventory and Sealed Leak Test Results

As required by Technical Specifications Section 6.10.1.g. and 6.10.1.h., each radioactive source containing more than 100 µCi beta-gamma activity must be leak tested and inventoried at least every six months. The inspector reviewed SI-56, "Byproduct Material Inventory and Sealed Source Leak Test", performed in the third quarter of 1981, which includes the inventory of both exempt and non-exempt sources. All leak test results were within the Technical Specification limits.

12. Contamination Control

The inspector discussed the contamination control program with licensee personnel and was concerned with the present type of portal monitors in use at the exit of the plant (Security Building). A licensee representative stated that three additional more sensitive portal monitors have been requisitioned, however the purchase order has not yet been approved. The inspector informed licensee management that this would be left as an open item and would be inspected again upon the next inspection 327/82-07-01 and 328/82-06-02.

13. Shipment of Radioactive Material

The inspector reviewed a radwaste shipment, TVA shipping number 92, for Department of Transportation (DOT) shipping requirements. The inspector concluded after his review of the Radioactive Shipment Record (RSR) and independent measurements of the external dose rates of the shipping vehicle, the radwaste shipment, met all requirements of DOT.

14. Health Physics Staff and Organization

The inspector reviewed the licensee's current Health Physics Organization and staff for adequacy to perform required duties of both Units 1 and 2. The licensee at present has six Health Physics Shift Foremen, thirteen ANSI-18.1 qualified Health Physics Technicians and twelve Junior Health Physics Technicians. The inspector concluded this appeared to be an adequate number of personnel to perform the necessary duties required and had no further questions.

15. Health Physics Technician Retraining

As required by ANSI-18.1 retraining of technicians should be at least every two years. The inspector reviewed Procedure ASIL-12, "Health Physics Technician Retraining" and determined this procedure meet the ANSI-18.1 requirements. The inspector also reviewed the training dates, course topics and personnel attendance of the retraining program. The inspector concluded this program appeared to be adequate and had no further questions.

16. Low Level Radwaste Storage Facility

The inspector reviewed the completed low level radwaste storage facilities for adequate radiological control design and construction to store radioactive material. The inspector concluded after his review the low level radwaste storage facilities appeared to meet radiological protection and control requirements and had no further questions.