



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

Report Nos. 50-327/82-35 and 50-328/82-34

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

Facility Name: Sequoyah

Docket Nos. 50-327 and 50-328

License No. DPR-77 and DPR-97

Inspection at Sequoyah site near Chattanooga, TN

Inspector: *T. R. Collins* 1/5/83  
 T. R. Collins Date Signed

Approved by: *K. P. Barr* 1/5/83  
 K. P. Barr, Section Chief Date Signed  
 Operational Programs Branch  
 Division of Engineering and Operational Programs

SUMMARY

Inspection on December 13-17, 1982

Areas Inspected

This routine, unannounced inspection involved 36 inspector-hours on site in the areas of TMI action items, radiation protection, and shipment of radioactive material.

Results

Of the three areas inspected, one violation was identified.

## REPORT DETAILS

### 1. Persons Contacted

#### Licensee Employees

- \*J. McGriff, Assistant Plant Superintendent
- \*R. J. Kitts, Health Physics Supervisor
- \*M. R. Harding, Compliance Supervisor
- \*D. L. Cowart, Quality Assurance Supervisor
- \*D. E. Crawley, Assistant Health Physics Supervisor
- \*A. M. Carver, Compliance Engineer
- D. E. Leonard, HP Shift Supervisor
- J. A. Leamon, HP Shift Supervisor
- J. S. Steigleman, HP Shift Supervisor
- F. Wright, Assistant to the HP Supervisor
- S. Holdefer, Assistant HP Supervisor
- E. Paris, HP Shift Supervisor
- R. Rogers, Compliance Engineer
- R. W. Fortenberry, Nuclear Engineer
- J. L. Taylor, Chemical Engineer
- R. Ramsey, Operations Shift Supervisor

#### NRC Resident Inspector

- \*E. J. Ford, SRI
- S. Butler, RI

#### \*Attended exit interview

### 2. Exit Interview

The inspection scope and findings were summarized on December 17, 1982, with those persons indicated in paragraph 1 above.

### 3. Licensee Action on Previous Enforcement Matters

Not inspected.

### 4. Unresolved Items

Unresolved items were not identified during this inspection.

### 5. Inspector Followup Items (Closed)

- a. (Closed) IFI (50-327 and 328/82-19-01) Respiratory Protection Program. The inspector reviewed the procedure revision of Respiratory Protection Program, HPSIL-3 and determined that the acceptance criteria of 2200 psig had been incorporated into the Respiratory Protection Program. The minimum pressure acceptability of breathing air bottles was

adequately addressed on the appropriate monthly inspection data sheets. The inspector concluded this was adequate and had no further questions.

- b. (Closed) IFI (50-327 and 328/82-19-02) Adequate Storage Location of Self Contained Breathing Apparatuses (SCBA's). The inspector observed several signs posted that adequately addressed the storage location of SCBA units. The inspector concluded that if these units were needed for an emergency condition it appeared personnel were adequately informed of the storage location. The inspector had no further questions.

#### 6. Inspector Followup Items (Open)

- a. (Open) IFI (50-328/82-06-01) Start Up Shield Surveys. The inspector was informed by licensee personnel that the test deficiency report issued to evaluate the inadequate shielding of two survey points RB-32 and RB-57 has not been reviewed. The inspector expressed his concern that this evaluation should be done in a timely manner and the modification completed as soon as practicable. The inspector informed licensee management this would be inspected upon the next routine inspection.
- b. (Open) IFI (50-327 and 328/82-06-02) Contamination Control Program. The licensee has procured two portal monitors and has placed them at the exit of Auxiliary Building 690 ft. elevation. However, the licensee has not determined the permanent location of these portal monitors at this time. The inspector informed licensee management that this item will remain open until their evaluation has been completed. This item will be inspected again upon the next routine inspection.
- c. (Open) IFI (50-327 and 328/82-19-03) Auxiliary Building Noble Gas Airborne Problems. The licensee has issued several Design Change Requests (DCR's) on the Ventilation and Purge System to eliminate any noble gas airborne radioactivity in the Auxiliary Building. However, additional events have occurred since these DCR's have been worked. The licensee has identified that the Boric Acid Tanks (BAT's) have created noble gas airborne problems during processes of reclaiming boric acid and installed temporary hoses and HEPA filters to the ventilation exhaust of the BAT's. This temporary installation appears to be adequate and should preclude further noble gas airborne problems from the BAT's. However, a permanent design change to eliminate the noble gas radioactivity from escaping from the BAT's is still under review. The inspector informed licensee management that this will be inspected again upon the next routine inspection.

#### 7. Licensee Event Reports (LER's)

- a. (Closed) Licensee Event Report (LER) 82-114 Inoperability of the Auxiliary Building Ventilation System Radiation Monitor. On September 9, 1982, at 0300 hours the licensee declared the Auxiliary Building Ventilation Radiation Monitor System inoperable due to loss of

sample flow. After investigation it was determined that the sample flow vacuum pump drive belt had broken due to normal wear on the belt. The drive belt was immediately replaced and the radiation monitoring system was returned to service. The inspector concluded that the immediate corrective action taken was adequate and had no further questions.

- b. (Closed) Licensee Event Report (LER) 82-124 Inoperability of the Liquid Radwaste Effluent Line Monitor. On October 13, 1982 at 2010 hours the licensee declared the Liquid Radwaste Effluent Line Monitor inoperable due to the failure of the monitor to meet surveillance requirements. In discussion with licensee personnel it was determined that several similar occurrences of this nature have previously occurred. Licensee representatives informed the inspector that Surveillance Instruction (51) 400.1, Section 2.27 had been revised to require the liquid radwaste effluent monitor to be flushed after each use to eliminate the high background count rate which resulted from a buildup of contamination in the sample chamber. The inspector concluded that this appeared to be adequate to preclude future problems of this nature. However, the licensee is evaluating a new type of sample chamber made of different material which apparently will eliminate the contamination buildup inside the radiation monitor. The inspector had no further questions.

#### 8. Post Accident Sampling System (PASS)

The inspector discussed the status of the Post Accident Sampling System (PASS) with licensee management representatives and was informed that the complete installation and operation of the PASS would not be completed until the middle of 1984. The inspector expressed his concern of the long range completion of the PASS, however, the licensee provided the inspector a letter sent to NRR, dated November 22, 1982, explaining the problems they have encountered in completion of this system. The inspector informed licensee management that this would be discussed between NRC Region II and NRR representatives and would be inspected again upon the next routine inspection (50-327/82-35-01 and 50-328/82-34-01).

#### 9. Installation of Temporary Lead Shielding

The inspector discussed with licensee representatives the use of lead shielding to reduce radiation levels in the plant during outage conditions. Licensee representatives informed the inspector that they have used lead shielding temporarily on certain jobs being performed either during routine or outage conditions. During tours of the plant the inspector observed that the licensee uses movable (mobile) racks with lead blankets attached to reduce radiation levels on certain jobs. The inspector asked licensee representatives if they had a program to evaluate the installation of lead shielding on safety related piping on systems. Licensee representatives

informed the inspector that no program existed for lead shielding; however, a program did exist for scaffolding. The inspector informed licensee management that 10 CFR 50.59 requires a safety evaluation to be performed on certain systems if an unreviewed safety question exists. Licensee representatives informed the inspector that a procedure would be initiated to control the use, installation and accountability of lead shielding. The inspector informed licensee representatives that this item would be inspected again upon the next routine inspection (50-327/82-35-02 and 50-328/82-34-02).

#### 10. Posting of Notices of Workers

10 CFR 19.11 requires, in part, that each licensee post "current copies" of Form NRC-3, Notice to Employees, in a sufficient number of places to permit individuals engaged in licensed activities to observe them on the way to or from any licensed activity location. The inspector observed the posting of notices required by 10 CFR 19.11 (Form NRC-3) at the entrance to the Administrative Building with revision date of January 1980. The latest revision date on Form NRC-3 is June 1982. The inspector asked licensee representatives if they had a program to insure current copies of required NRC documents were posted with the current revisions. The inspector was informed that Sequoyah Nuclear Plant, Standard Practice, SQA-49, Posting of Documents as Required by the Nuclear Regulatory Commission, had the current NRC Form-3, dated June 1982. However, the current NRC Form-3 had not been posted due to procedure SQA-49 being under revision. The inspector reviewed the Standard Practice SQA-49 and determined that the current NRC Form-3 was attached to the procedure and that the procedure was under revision. The inspector expressed his concern to licensee management that posting of required NRC documents must be in a timely manner. Licensee management stated that Standard Practice, SQA-49 would be revised to require posting of current NRC documents within 30 days of receipt. The inspector stated to licensee representatives that this was a violation of 10 CFR 19.11(a)(c) (50-327/82-35-03 and 50-328/82-34-03).

#### 11. Personnel Dosimetry Program

The inspector discussed with a licensee representative if a program existed to investigate discrepancies between TLD's and pocket dosimeters. The cognizant supervisor informed the inspector that Personnel Dosimetry Program, Procedure DSIL-13 addressed discrepancy investigations. The inspector reviewed this procedure and determined that a 25% discrepancy between TLD's and pocket dosimeters did require an investigation. The inspector also reviewed a list of discrepancies of approximately 50 people for the fourth quarter of 1982. The reason for the high number of people with discrepancies appears to be due to the total number of people badged during this period (approximately 2500 per month) and outage conditions. The inspector had no further questions.



## 12. Contract Health Physics Technicians

The inspector discussed the training program for contract health physics technicians with a licensee representative and was informed that a program did exist. The inspector reviewed the lesson plan for the 40 hour training class provided for contract technicians and also reviewed the test scores of approximately 22 technicians to ensure understanding. The inspector concluded that this training program was adequate and had no further questions.

## 13. Qualifications of Contract Health Physics Technicians

The inspector reviewed the resumes of all contract health physics technicians to ensure they meet the requirements of ANSI-18.1. The inspector concluded after his review that all technicians met the requirements of ANSI-18.1 and had no further questions.

## 14. Posting, Labeling and Control

The inspector toured the Auxiliary Building, Containment, and Radwaste Buildings to verify proper posting of Radiation Controlled Areas, Radiation Areas, High Radiation Areas, Radioactive Materials Areas, and Airborne Radioactivity Areas.

No violations or deviations were observed.

## 15. Whole Body Counting (Bioassays)

The inspector selectively reviewed whole body count records of plant and outage personnel for the period of the third and fourth quarter of 1982. All of the results reviewed by the inspector were well below any significant values of permissible body burdens. The inspector had no further questions.

## 16. Radiation Exposure History (NRC Form-4s)

The inspector selectively reviewed NRC Form-4s of plant and outage personnel for the period of the third and fourth quarter of 1982 to verify that the licensee has documented previous occupational radiation exposure history.

No violations or discrepancies were observed.

## 17. Shipment of Radioactive Material

The inspector reviewed the Radioactive Material Shipment No. 139 of low specific activity (LSA) waste being shipped to U.S. Ecology, Richland, Washington, for burial. The inspector concluded after his review that the radioactive waste shipment met (DOT) 49 CFR and 10 CFR 71 requirements.