UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA STREET, N.W., SUITE 2900
ATLANTA, GEORGIA 30323-0199

April 18, 1995

Report Nos.: 50-327/95-10 and 50-328/95-10

Licensee: Tennessee Valley Authority
6N 38A Look Place
1101 Market Street
Chattanooga, TN 37402-2801

Docket Nos.: 50-327 and 50-328 License Nos.: DPR-77 and DPR-79

Facility Name: Sequoyah 1 and 2

Inspection Conducted: March 20 - March 24, 1995

Inspector: William H Rankin 4/17/95
for D. B. Forbes Date Signed

Approved by: William H Rankin 4/17/95
W. H. Rankin, Chief Date Signed
Facilities Radiation Protection Section
Radiological Protection and Emergency Preparedness Branch
Division of Radiation Safety and Safeguards

SUMMARY

Scope:

This routine, announced inspection of the licensee's radiation protection (RP) program involved review of health physics (HP) activities. The specific areas evaluated included organization and management controls, self-assessment programs, training, external and internal exposure controls, control of radioactive material and contamination, surveys and monitoring, and As Low As Reasonably Achievable (ALARA) program implementation.

Results:

Based on interviews with licensee personnel, records review, and observation of work activities in progress, the inspector found the RP program to be functioning adequately to protect the health and safety of plant workers. RP staffing levels appeared adequate to support on-going activities. The licensee continued to implement effective internal and external exposure control programs with all exposures less than 10 CFR Part 20 limits. The ALARA program continued to be effective in controlling overall collective dose.

REPORT DETAILS

1. Persons Contacted

Licensee Employees

*J. Armstrong, Manager, ALARA
*B. Alsup, Supervisor, Quality Assessment
J. Baumstark, Plant Manager
D. Brock, Manager, Maintenance
*M. Burzynski, Manager, Engineering and Materials
R. Driscoll, NA & L Manager
*G. Enterline, Manager, Operations
*R. Goodman, Manager, Training
*E. Hensley, Senior Technical Instructor, Nuclear Training
S. Holdefer, Radiation Protection
J. Johnson, Radiation Protection
C. Kent, Manager, Environmental and Radiation Protection
*S. McCamey, Manager, Field Operations, Radiation Protection
K. Meade, Manager, Compliance Licensing
*L. Poage, Manager, Site Quality
*R. Proffitt, Engineer, Compliance Licensing
G. Rich, Manager, Chemistry
J. Robertson, Manager, Independent Review
*R. Shell, Manager, Site Licensing
*J. Vincelli, Manager, Radiation Protection

Other licensee employees contacted during the inspection included technicians, maintenance personnel, and administrative personnel.

Nuclear Regulatory Commission

W. Holland, Senior Resident Inspector
*D. Starkey, Resident Inspector

*Denotes attendance at exit meeting held on March 24, 1995.

2. Organization and Management Controls (83750)

Changes in organization and management controls were reviewed to assess their impact on the effective implementation of the occupational radiation protection (RP) program.

By observation and discussion with cognizant supervisory and management personnel, the inspector reviewed changes made to the licensee's organization, staffing levels, and lines of authority as they relate to radiation protection.

The inspector reviewed and discussed with licensee representatives changes made to the health physics (HP) organization and staffing levels since the last inspection of this area and documented in Inspection Report (IR) 50-327, 328/94-24. The licensee had not made any significant organizational changes to the RP organization since the previous inspection. However, the Environmental and Radiation Protection Manager had previously performed a dual position to include the position of Radiation Protection Manager (RPM). Under the current organization, the RPM has become a separate position reporting directly to the Environmental and Radiation Protection Manager. This position was filled by the former Radiation Protection Field Operations Manager. The licensee RP continued to consist of approximately 30 health physics technicians (HPTs) with all job coverage personnel being American National Standards Institute (ANSI)-qualified.

The RP organization and staffing levels continued to be appropriate, stable and functioning adequately to support ongoing RP activities. The inspector interviewed licensee staff in selected areas of radiation protection and all personnel interviewed appeared knowledgeable of their cognizant areas.

No violations or deviations were identified in this area.

3. Self Assessment Programs (83750)

Licensee activities and self assessment programs were reviewed to determine the adequacy of identification and corrective action programs for deficiencies or weaknesses related to the control of radiation or radioactive material.

10 CFR 20.1101(c) requires that the licensee periodically review the RP program content and implementation at least annually.

The licensee's independent self assessment in the radiation control area consisted of formal audits per Technical Specification (TS) requirements, documented observations, and specific surveillance. A qualified auditor with HP and chemistry qualifications experience was assigned to the station to implement the licensee's assessment activities.

a. Audits

The inspector reviewed licensee efforts to self identify potential radiological issues or problems while performing audits of the RP program. Observations by the inspector and discussions with cognizant licensee personnel indicated that these efforts were accomplished by reviewing procedures, observing work, reviewing industry documentation, and performing plant walkdowns to include surveillance of work areas by supervisors and technicians during

normal work coverage. Documentation of problems by licensee representatives was included in Quality Assurance (QA) Audits. The QA Audits reviewed since the last inspection included:

- Radcon Performance Evaluation, NA-SQ-94-036, dated July 1994
- Radcon Performance Evaluation, NA-SQ-94-036, dated July 1994
- Radcon Performance Evaluation, NA-SQ-94-044, dated July 1994
- Radcon Performance Evaluation Final Report, NA-SQ-94-045, dated November 1994

In general, the audit performance objectives were well planned and the inspector determined the audits were well conducted, well documented, and contained items of substance relating to the RP program. The inspector also noted corrective actions to findings were being accomplished in a satisfactory manner. Based on these observations by the inspector, the Self Assessment Program continued to be adequate.

b. Radiological Awareness Reports

The licensee Radiological Awareness Report (RAR, Program is used to report and resolve deviations from proper HP practices, policies, or procedures in order to reduce radiation exposures to the public and plant personnel, and to provide safe radiological working conditions. The inspector reviewed RARs written since the last inspection of this area in December, 1994 and documented in IR 50-327, 328/94-46. RARs were tracked and trended and also specified the needed corrective actions.

No violations or deviations were identified

4. Training and Qualifications (83750 and 83728)

Training and qualifications were reviewed to determine whether HPTs, contractor HPTs, and radiation workers were qualified in accordance with the licensee's standards and procedures and that radiation workers were receiving appropriate instructions in the area of radiation protection for their work assignments.

10 CFR 19.12 requires that licensees instruct all individuals working in or frequenting any portion of the restricted areas in the health protection aspects associated with exposure to radioactive material or radiation, in precautions or procedures to minimize exposure, and in the purpose and function of protection devices employed, applicable provisions of the Commission Regulations, individuals responsibilities and the availability of radiation exposure data.

a. General Employee Training

The inspector reviewed and discussed with licensee representatives the licensee's program for providing RP training to licensee employees and determined that General Employee Training (GET) was divided into Categories I and II.

Category I was for those licensee employees who were allowed entry into the radiation controlled area (RCA) with the exception of contaminated zones and high radiation areas (HRAs). The inspector reviewed Course No. GET012/013 entitled "Initial Radcon Training and Retraining," Revision (Rev.) 0, dated January 1, 1994, and discussed this with licensee training representatives. Through those discussions and reviews, the inspector noted that individuals were instructed in the general principles of radiation protection and ALARA and how those principles were applied to the facility.

Category II was for those licensee employees who were allowed entry into all areas within the RCA to include contaminated zones and high radiation areas. The inspector reviewed Course No. GET022/023 entitled "Radcon Training and ReTraining," Rev. 0, dated January 1, 1994, and discussed this with licensee training representatives. Through those discussions and reviews, the inspector noted that individuals were instructed in those same areas for Level I training with regards to the general principles of radiation protection. In addition, individuals were given more detailed and specific instructions with regards to the principles of radiation protection to include topics such as contamination control, internal contamination, radiation work permits (RWPs), radioactive waste, respiratory protection, and protective clothing.

From discussions with licensee personnel and a review of the training procedures, the inspector determined that the RP training program met the provisions of 10 CFR 19.12.

No violations or deviations were identified in this area.

b. Health Physics Technician Training

The inspector reviewed the HP Continuing Training program and discussed the program with licensee representatives to include licensee procedure TRN-20, Rev. 2, dated October 3, 1994, which establishes the HP training requirements. Through those discussions and a review of records, the inspector noted the Curriculum Review Committee to include the RPM, supervisors, and training representatives would meet quarterly to discuss the

training needs for HPTs. Also, this included the solicitation of topics from HPTs. Upon determination of those training needs the training department would conduct classroom sessions that were informational to include reviews of changes in RP procedures and policies, industry events and overviews of various plant systems. Discussions with licensee representatives and documentation reviewed determined that HP continuing training normally consisted of approximately 40-80 hours a year.

No violations or deviations were identified in this area.

c. Contractor Health Physics Technician Training and Qualifications

The inspector reviewed qualification requirements and objectives for contractor HPTs primarily involved in outage activities. For the training reviewed, the inspector determined that the senior contractor HPT training and examinations were challenging and designed to ensure technicians were maintaining ANSI/ANS 3.1-1978 and ANSI N18.1-1971 qualification standards. Training for contractor HPTs also consisted of a 12 hour lecture and examination addressing licensee site specific procedural requirements.

No violations or deviations were identified in this area.

d. Implementation of Respiratory Protection Training

The inspector reviewed licensee respiratory protection training HPT263.001, Rev. 7 and discussed with licensee training personnel, the training objectives, general training requirements, and general safety precautions for individuals wearing respiratory protection. No concerns were noted with the training material.

No violations or deviations were identified in this area.

5. External Exposure Control (83750)

This area was reviewed to determine whether personnel dosimetry, administrative controls, and records and reports of external radiation exposure met regulatory requirements.

10 CFR 20.1201(a) requires each licensee to control the occupational dose to individual adults, except for planned special exposures under 10 CFR 20.1206, to the following dose limits:

(1) An annual limit, which is the more limiting of:

(i) The total effective dose equivalent being equal to 5 rems; or

(ii) The sum of the deep-dose equivalent and the committed dose equivalent to any individual organ or tissue other than the lens of the eye being equal to 50 rems; and

(2) The annual limits to the lens of the eye, to the skin, and to the extremities, which are:

(i) An eye dose equivalent of 15 rems; and
(ii) A shallow-dose equivalent of 50 rems to the skin or to any extremity.

10 CFR 20.1501(a) requires each licensee to make or cause to be made such surveys as (1) may be necessary for the licensee to comply with the regulations and (2) are reasonable under the circumstances to evaluate the extent of radioactive hazards that may be present.

a. Administrative Controls for External Exposure

The inspector reviewed and discussed with licensee representatives Total Effective Dose Equivalent (TEDE) exposures for plant and contract personnel for the period of January 1, 1994 through March 20, 1995. Through review of selected dose records and discussions with licensee representatives, the inspector confirmed that all TEDE exposures assigned during the period were within 10 CFR Part 20 limits. The inspector reviewed selected personnel exposure reports and the licensee also reported that there were no personnel doses close to exceeding administrative limits. A discussion with licensee representatives and a review of pertinent records determined the licensee had established an annual site exposure goal for 1994 of approximately 400 person-rem. The licensee's 1994 annual site exposure goal was based on operational exposure and a single unit 100 day refueling outage. Site exposure actually accrued in 1994 was approximately 320 person-rem for an average 1994 dose per reactor of 160 person-rem. The 1995 site exposure goal of approximately 285 person-rem was also based on operational dose and on an approximate 55 day single unit refueling outage. Exposure accrued in 1995 as of March 20 was approximately 47 person-rem which included a forced outage of Unit 1 to repair a leak of the Reactor Vessel Level Indicating System (RVLIS) tubing as discussed in Paragraph 9 of this report.

From a review of selected records and discussions with licensee representatives, the inspector noted that RP activities and radiation worker dose appeared to be under control.

b. Personnel Dosimetry

10 CFR 20.1502(a) requires each licensee to monitor occupational exposure to radiation and supply and require the use of individual monitoring devices by:

(1) Adults likely to receive, in one year from sources external to the body, a dose in excess of 10 percent of the limits in 10 CFR 20.1201(a);

(2) Minors and declared pregnant women likely to receive, in one year for sources external to the body, a dose in excess of 10 percent of any of the applicable limits of 10 CFR 20.1207 or 10 CFR 20.1208; and

(3) Individuals entering a high or very high radiation area.

The dose tracking system RIMS tracked personnel exposures in order to ensure adherence to procedural administrative allowances as well as 10 CFR Part 20 limits.

The licensee continued to implement both Electronic Dosimeters (EDs) and self-reading pocket dosimeters (SRPDs); however, the former were being used as the primary devices for containment entries. The inspector observed personnel logging into the Electronic Dosimetry (ED) system. From observations, the inspector noted personnel were properly utilizing the ED system. The inspector conducted random interviews with radiation workers in the RCA. The radiation workers were knowledgeable of their personal dose and proper response to ED alarms.

Based on direct observation, discussion, and review of records, the inspector determined personnel dosimeters were being effectively utilized. During tours of the RCA, the inspector noted that personnel observed were wearing EDs and thermoluminescent dosimeters (TLDs) properly.

10 CFR 20.1501(c)(1) and (2) requires that dosimeters used to comply with 10 CFR 20.1201 shall be processed and evaluated by a processor accredited by the national Voluntary Laboratory Accreditation Program (NVLAP) for the types of radiation being monitored.

The inspector reviewed and discussed the licensee's dosimetry program with site personnel and determined licensee dosimetry was being processed under NVLAP certification.

No violations or deviations were identified.

c. High Radiation Areas

Licensee TS requires, in part, that each HRA with radiation levels greater than or equal to 100 mrem/hr but less than 1000 mrem/hr be barricaded and conspicuously posted as a HRA. In addition, any individual or group of individuals permitted to enter such areas were to be provided with or accompanied by a radiation monitoring device which continuously indicated the radiation dose rate in the

area or a radiation monitoring device which continuously integrated the dose rate in the area, or an individual qualified in RP procedures with a radiation dose rate monitoring device.

The inspector reviewed RP Radiological Control Instruction, RCI-24, "Control Of Very High Radiation Areas," Rev. 0, dated January 1, 1994, which established and defined the licensee's proper control of Very High Radiation Areas (VHRAs). During tours of the Auxiliary, Waste Processing, and the Fuel Handling Buildings, the inspector observed and independently verified that HRAs were locked and/or posted as required. The inspector discussed HRA Key controls with licensee representatives, reviewed records, and reviewed key control methods. The inspector did not note any discrepancies with HRA or VHRA controls during the inspection for selected areas inspected.

No violations or deviations were identified.

6. Internal Exposure Control (83750)

This area was reviewed to determine the adequacy of licensee's use of process and engineering controls to limit exposures to airborne radioactivity, adequacy of respiratory protection program, licensee's administrative controls for assessing the TEDE in radiation and airborne radioactive materials areas, assessments of individual intakes of radioactive material, and records of internal exposure measurements and assessments.

10 CFR 20.1502(b) requires each licensee to monitor the occupational intake of radioactive material by and assess the committed effective dose equivalent (CEDE) to:

(1) Adults likely to receive, in one year, an intake in excess of 10 percent of the applicable ALI in Table 1, Columns 1 and 2 of Appendix B to 10 CFR 20.1001-20.2401; and

(2) Minors and declared pregnant women likely to receive, in one year, a CEDE in excess of 0.05 rem.

10 CFR 20.1204(a) states that for the purposes of assessing dose used to determine compliance with occupational dose equivalent limits, each licensee shall, when required under 10 CFR 20.1502, take suitable and timely measurements of:

(1) Concentrations of radioactive materials in air in work areas; or
(2) Quantities of radionuclides in the body; or
(3) Quantities of radionuclides excreted from the body; or
(4) Combinations of these measurements.

a. Respiratory Protection

Requirements for TEDE/ALARA reviews were addressed in RCI-4, "Respiratory Protection Program," Rev. 32, dated 1994, and RCI-14, "Radiation Work Permit (RWP) Program," Rev. 19, dated 1995. The procedure required ALARA evaluations to be performed by RP prior to performing work in airborne radioactivity areas to demonstrate that respiratory protection provisions are consistent with the goal of maintaining individual and collective total effective dose equivalent ALARA. Documentation reviewed determined the licensee issued approximately 237 respiratory devices in 1994 and approximately 36 respiratory devices in 1995. The total site Derived Air Concentration (DAC)-Hours for 1994 was approximately 153 DAC-Hours, which is equivalent to 383 millirem (mrem) of internal exposure.

The inspector discussed with the licensee respirator reduction efforts with respect to engineering controls methods to be used by the licensee for future respirator reductions to enhance ALARA concepts such as, worker training, successful decontamination efforts, and various engineering controls to include worksite ventilation and face shields. Furthermore, the inspector noted that the licensee did not observe an increase in the number of positive intakes for individuals who did not wear respirators for those activities that in the past individuals would have worn them.

Selected results of assessments for personnel having indications of positive intakes of radioactive material were reviewed by the inspector. No problems were found during a review of the procedure or of selected bioassay records. The inspector reviewed records for selected employees who had recently worn respiratory protection equipment. The inspector verified that for the records reviewed, each worker had successfully completed respiratory protection training, was medically qualified, and was fit-tested for the specific respirator type used in accordance with licensee procedural requirements.

Based on a review of records and discussions with licensee personnel, the inspector determined that the licensee had made efforts to maintain TEDE exposures ALARA and that the licensee's program for monitoring, assessing, and controlling internal exposures was conducted in accordance with regulatory and procedural requirements with no exposures in excess of 10 CFR Part 20 limits identified.

No violations or deviations were identified in this area.

d. Breathing Air Quality

30 CFR 11.121 requires that compressed, gaseous breathing air meet the applicable minimum grade requirements for Type 1 gaseous air set forth in the Compressed Gas Association (CGA) Commodity Specification for Air, G-7.1 (Grade D or higher quality).

The inspector reviewed and discussed with the licensee representatives the program for testing and qualifying breathing air as Grade D. The inspector examined breathing air manifolds for physical integrity, current calibration of gauges, and the presence of carbon monoxide sampling. In addition, the inspector further noted that the supplied air hoods and hoses available for use were compatible per manufacturer's instructions as were air supplied respirators and hoses.

Review of breathing air testing records verified that the licensee was sampling in-use breathing air systems for certification in accordance with procedural requirements. For the tests reviewed, breathing air met Grade D requirements.

No violations or deviations were identified.

7. Operational and Administrative Controls (83750)

a. Radiation Work Permits

The inspector reviewed licensee procedure RCI-14, "Radiation Work Permit Program," Rev. 19 dated January 27, 1995. The inspector also reviewed selected routine and special RWPs for adequacy of the radiation protection requirements based on work scope, location, and conditions. For the RWPs reviewed, the inspector noted that appropriate protective clothing, respiratory protection, and dosimetry were required. During tours of the plant, the inspector observed the adherence of plant workers to the RWP requirements and discussed the RWP requirements with selected plant workers and RP personnel. The inspector reviewed Radiological Status Boards used to enhance RWP survey information and discussed RWP requirements for HRAs with HPTs.

The inspector found the licensee's program for RWP implementation to adequately address radiological protection concerns and to provide for proper control measures.

b. Notices to Workers

10 CFR 19.11(a) and (b) require, in part, that the licensee post current copies of 10 CFR Part 19, Part 20, the license, license conditions, documents incorporated into the license, license amendments and operating procedures, or that a licensee post a notice describing these documents and where they may be examined.

10 CFR 19.11(d) requires that a licensee post form NRC-3, Notice to Employees. Sufficient copies of the required forms are to be posted to permit licensee workers to observe them on the way to or from licensee activity locations.

During the inspection, the inspector verified that NRC Form-3 was posted properly at plant locations permitting adequate worker access. In addition, notices were posted referencing the location where the license, procedures, and supporting documents could be reviewed. The inspector interviewed selected licensee and contractor personnel and verified personnel were familiar with the requirements of 10 CFR 19.11(d).

No violations or deviations were identified.

8. Control of Radioactive Materials and Contamination, Surveys, and Monitoring (83750)

This program area was reviewed to determine whether survey and monitoring activities were performed as required and control of radioactive materials and contamination met requirements.

a. Surveys and Personnel Monitoring

10 CFR 20.1501(a) requires each licensee to make or cause to be made such surveys as (1) may be necessary for the licensee to comply with the regulations and (2) are reasonable under the circumstances to evaluate the extent of radioactive hazards that may be present.

The inspector reviewed selected records of routine and special radiation and contamination surveys performed and discussed the survey results with licensee representatives. During tours of the plant, the inspector observed HPTs performing radiation and contamination surveys. The inspector independently verified radiation and contamination levels in portions of the Auxiliary Building. No concerns with the adequacy or frequency of the radiological survey activities were identified.

No violations or deviations were identified.

b. Radiological Postings and Control of Contamination and Radioactive Material

10 CFR 20.1904(a) requires the licensee to ensure that each container of licensed material bears a durable, clearly visible label bearing the radiation symbol and the words "Caution, Radioactive Material," or "Danger, Radioactive Material." The label must also provide sufficient information (such as

radionuclides present, and the estimate of the quantity of radioactivity (e.g., kinds of materials and mass enrichment) to permit individuals handling or using the containers, to take precautions to avoid or minimize exposures.

Licensee procedure RCI-21, "Control of Radioactive Material and Storage Areas," Rev. 2, dated 1994, Paragraph 4.1.B. provided guidance for labeling items and equipment as radioactive material. During facility tours, the inspector noted that all containers and materials inspected were properly labeled in accordance with radiation hazards present.

The inspector noted that the licensee's posting and control policies for radiation areas, HRAs, VHRAs, airborne radioactivity areas, contamination areas, and radioactive material areas were appropriate.

No violations or deviations were identified.

c. Control of Contaminated Areas

During facility tours, the inspector noted that contamination control and general housekeeping practices were adequate. In 1994, the licensee's average contaminated square footage was approximately 3.9 percent of the total RCA. Licensee personnel informed the inspector that decontamination efforts continue to reduce contaminated areas and at the time of the inspection the licensee was maintaining approximately 2.6 percent of the RCA as contaminated. The inspector observed decontamination efforts with cognizant personnel during tours of the facility. The inspector did inform licensee personnel of a puddle of water observed by the inspector on the floor in the Auxiliary Building. The licensee determined the water was condensation leaking from an overhead pipe and cleaned up the water.

Based on tours of the facility, selected independent contamination surveys, and general work practices observed, the inspector did not note any contamination control problems during the inspection.

No violations or deviations were identified.

d. Personnel Contaminations

The licensee's annual goal for PCEs in fiscal year 1994 was 120 PCEs and as December 31, 1994, the licensee had accumulated 81 PCEs. At the time of the inspection, the licensee had accumulated 14 PCEs in 1995. The inspector reviewed a significant number of the 1994 and 1995 PCEs to identify potential trends but did not identify any during the review. The licensee's documentation and followup of individual PCEs appeared to be appropriate and skin dose assessments were performed when required. For the selected documents reviewed, resultant

exposures were minor. There were only a few skin contaminations requiring dose assignments and the inspector verified that they were added to the individuals dose records.

No violations or deviations were identified.

e. Radiation Detection and Survey Instrumentation

During facility tours, the inspector noted that survey instrumentation and continuous air monitors in use within the RCA were operable and currently calibrated. The inspector toured the instrument calibration room and observed instruments staged for issue. The inspector further noted an adequate number of survey instruments were available for use.

No violations or deviations were identified.

9. Followup on Licensee Event (83728)

The inspector reviewed the radiological consequences of a leak that occurred February 23, 1995, at a RVLIS tubing connection in Unit 1. Appropriate contamination clothing and respiratory protection equipment was worn during initial entry into the containment to isolate the leak based on both radiological and safety concerns. Radiation levels at the source of the leak were approximately 30 mrem/hour. High contamination levels were detected in the area of the leak. Initial wet smear contamination surveys indicated an approximately 35 millirad (mrad)/smear. Subsequent surveys indicated isolated areas of contamination as high as 1000 mrad/smear. Contamination was contained to the incore instrument room and raceway. Initial decontamination efforts significantly reduced contamination levels in the raceway and in the affected area of the leak in the incore instrument room. Decontamination efforts were accomplished by use of hand scrubbing and a small pressure washer and no personnel were contaminated during the decontamination evolutions. All areas were decontaminated to pre-event levels with the exception of some unsealed concrete areas where residual leaching of contamination may occur; however, the remaining contamination is not located in general egress areas. All personnel involved in the initial entry were bioassayed to determined the effectiveness of the Self Contained Breathing Apparatus (SCBA) used as respiratory protection. The bioassay determined the SCBA was effective for particulate activity and only small quantities of Iodine-133 were detected. The levels of Iodine detected (approximately 5 nanocuries) were well below Regulatory limits. It was determined the Iodine was most likely the result of skin absorption rather than inhalation based on the high efficiency of the SCBAs worn and the high heat and humidity in the area at the time of the initial entry. The majority of the airborne radioactivity detected was radioactive noble gases rather radioactive particulate and resulted more in external radiation (skin dose) rather than internal exposure. Total exposure received during the forced outage was approximately 3 person-rem. The licensee performed additional work evolutions during the forced outage in addition to

repairing a compression fitting leak on the RVLIS. A task description of the majority of the work performed during the forced outage and approximate exposures incurred for those evolutions is included in table 1 with an approximate exposure total for the forced outage.

TABLE 1

TASK DESCRIPTION	EXTERNAL MREM	INTERNAL DAC-HOURS	SKIN MREM
DECONTAMINATION	412	69	1639
INSPECT SYSTEM 68 FITTINGS	455	23	950
MISCELLANEOUS INSPECTIONS DUE TO FORCED OUTAGE	641	20	799
CHECK VALVE TESTING	161	7	388
REACTOR COOLANT PUMP SPRAY SHIELD UPGRADE	1174	11	1053
MISCELLANEOUS OTHER ACTIVITIES	186	25	864
APPROXIMATE TOTAL FORCED OUTAGE EXPOSURE	3200	163	5900

No violations or deviations were identified.

10. Followup on Inspector Followup Items (IFI) (92702)

(Open) IFI 50-327 and 328/94-07-01: Inspector Followup Item to review licensee actions regarding followup to a contamination event resulting in contamination particles on the Auxiliary Building roof.

The licensee informed the inspector that resolution of this issue was not complete. The inspector informed the licensee that licensee action regarding this item would be reviewed during a future inspection.

(Closed) URI 50-327 and 328/94-15: The inspector informed the licensee that the Unresolved Item for failure to follow procedures for entering a High Radiation Area was changed to a Non Cited Violation and closed in NRC Inspection Report 94-46.

11. Program for Maintaining Exposures As Low As Reasonably Achievable (83728)

10 CFR 20.1101(b) requires that each licensee use, to the extent practicable, procedures and engineering controls based upon sound RP principles to achieve occupational doses and doses to members of the public that are ALARA.

This program area was reviewed to determine the adequacy of the ALARA program. Areas reviewed included organization support, training, radiation source reduction, worker awareness and involvement, ALARA plans and reviews, and ALARA results in the implementation of the licensee's ALARA program.

The inspector reviewed and discussed with licensee representatives the ALARA program implementation and planning initiatives for recent work performed and future work planned. Areas reviewed included source term reduction, ALARA accomplishments, and future ALARA plans. Licensee ALARA and source term reduction initiatives accomplished in 1994 included: Installation of a non-stellite trim package in one high maintenance primary system flow control valve and low cobalt seats in four primary system check valves, performance of gamma spectroscopy during the Unit 2 Cycle 6 outage for trending ex-core radionuclide crud levels to evaluate source term reduction efforts, application of strippable coatings in the reactor cavity and equipment pit to remove source term contamination, successful source term activity removal during shutdown of Unit 2 for Cycle 6 outage which removed approximately 3200 Curies of Cobalt-58 (92.2 percent of activity removed) and Cobalt-60 (7.8 percent of activity removed) from the system, replacement of the Unit 2 ice bed recording system to reduce entries inside the containment at power, and installation of permanent inlet and outlet nozzle covers in the Unit 2 reactor cavity in addition to other initiatives reviewed that were included in the Sequoyah Nuclear Plant "ANNUAL ALARA REPORT" for 1994.

The inspector interviewed selected ALARA staff members including the ALARA manager and determined the organizational structure and responsibilities for the ALARA staff were clearly defined in organizational charts and licensee procedures. The inspector determined that the licensee's ALARA policy and objectives were adequately addressed in GET Level II Training and industry events concerning ALARA issues into GET Training. Licensee personnel interviewed appeared knowledgeable of concepts and objectives for maintaining exposures ALARA. The ALARA program continued to be effective in controlling overall collective dose.

No violations or deviations were identified.

12. Exit Meeting

On March 24, 1995, an exit meeting was held with those licensee representatives denoted in Paragraph 1 of this report. The inspector summarized the scope and findings of the inspection and indicated that no apparent violations or deviations were identified. The licensee did not indicate any of the information provided to the inspectors during the inspection as proprietary in nature and no dissenting comments were received from the licensee during the exit.