



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

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Report Nos.: 50-259/94-05, 50-260/94-05, and 50-296/94-05

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

Docket Nos.: 50-259, 50-260,  
and 50-296

License Nos.: DPR-33, DPR-52,  
and DPR-68

Facility Name: Browns Ferry 1, 2, and 3

Inspection Conducted: February 14-18, 1994

Inspector: Elizabeth S. Phayr  
E. B. Phayr

3/1/94  
Date Signed

Accompanying Personnel: W. T. Loo

Approved by: William H Rankin  
W. H. Rankin, Chief  
Facilities Radiation Protection Section  
Radiological Protection and Emergency Preparedness Branch  
Division of Radiation Safety and Safeguards

3/1/94  
Date Signed

SUMMARY

Scope:

This routine, announced inspection was conducted in the area of occupational radiation safety and included an examination of organization and staffing, audits and appraisals, training, external exposure control, internal exposure control, control of radioactive materials and contamination, surveys and monitoring, and maintaining occupational exposures as low as reasonably achievable (ALARA).

Results:

In the area inspected, no violations or deviations were identified. Overall, the inspector determined that the radiation protection (RP) program continued to adequately protect the health and safety of occupational radiation workers. External and internal exposures were maintained within regulatory and the licensee's administrative limits. The ALARA program continued to be effective in implementing dose reduction initiatives and in monitoring, tracking, trending, and maintaining workers' exposures ALARA. One weakness was identified with the licensee's implementation of the Electronic Dosimetry (ED) system.



## REPORT DETAILS

### 1. Persons Contacted

#### Licensee Employees

- \*T. Abney, Manager, Regulatory Licensing
- \*M. Bajestani, Manager, Technical Support
- R. Coleman, Radiological Protection Supervisor
- \*J. Corey, Manager, Radiological Controls
- \*C. Crane, Manager, Maintenance
- B. Fike, Technical Training Instructor
- \*D. Johnson, Manager, Licensing Engineer
- \*J. Johnson, Manager, Quality Assurance (QA)
- \*R. Machon, Plant Manager
- \*E. Maddox, Engineer
- \*J. McDaniel, QA Assessor
- \*J. Sabados, Manager, Chemistry
- \*J. Schlessel, Maintenance
- A. Sorrell, Manager, Radiation-Chemistry
- F. Spivey, ALARA Supervisor
- \*P. Walker, Specialist, CRS
- J. Wallace, Specialist, Compliance Licensing
- L. Washington, Radiological Health Supervisor
- \*R. Wells, Manager, Compliance Licensing

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

#### Nuclear Regulatory Commission

- \*J. Mundy, Resident Inspector
- \*R. Musser, Resident Inspector
- \*C. Patterson, Senior Resident Inspector
- \*W. Rankin, Chief, Facilities Radiation Protection Section

\*Attended February 18, 1994 exit meeting

### 2. Organization and Management Controls (83750)

During the onsite inspection, the inspector reviewed the licensee's staffing and organization for the Radiological Controls (RadCon) group. No significant changes were noted in the organizational structure since the previous inspection conducted June 7-11, 1993, and documented in NRC Inspection Report (IR) 50-259, -260, -296/93-24. The inspector noted that the RadCon organization remained relatively stable, with a present staff of 103 technicians, specialists, and supervisors.



Based on discussions with licensee representatives and observations of activities in progress, no concerns were identified regarding the licensee's organization and staffing, with the present RadCon organization and staffing levels adequate to support ongoing activities.

No violations or deviations were identified.

### 3. Audits and Appraisals (83750)

Technical Specification (TS) 6.5.1.6 requires that audits of plant activities be performed under the cognizance of the Plant Operations Review Committee encompassing the conformance of plant operations to provisions contained within the TSs and applicable license conditions at least once per 12 months; and the Process Control Program and implementing procedures at least once per 24 months.

The inspector reviewed Nuclear Assurance and Licensing (NAL) audits of the RadCon program performed since the previous inspection conducted June 7-11, 1993, and documented in IR 50-259, -260, -296/93-24. The inspector reviewed the Quarterly Assessment for Radiological Control to include NA-BF-93-091 and NA-BF-93-159 conducted during Fiscal Year 1993 (FY 93) third and fourth quarters. The inspector noted that the assessments appeared to be well planned and documented. The assessment reports were thorough with both strengths and improvement items being identified. Through discussions with licensee representatives, the inspector determined that as of January 1, 1994, the licensee would no longer document these findings in Quarterly Assessment Reports (QARs) because the same information used for these QARs was used and compiled for the licensee's Nuclear Power Nuclear Assurance Level I Trend Analysis Report (NPNA). The inspector reviewed the NPNA report for the first quarter of Fiscal Year 1994 (FY 94), October 1 to December 31, 1993. The inspector noted that for the Browns Ferry facility, the licensee identified several strengths to include internal and external exposure controls, dosimetry, and contamination control. Additionally, the inspector reviewed the Monthly Assessment for Radiological Controls also performed by the NAL group to review program effectiveness. Those particular monthly assessments reviewed by the inspector included NA-BF-93-084, NA-BF-93-105, NA-BF-93-121, NA-BF-93-140, NA-BF-93-157, NA-BF-93-181, NA-BF-93-194, NA-BF-93-207, NA-BF-94-015, conducted during May through December 1993, and January 1994. The inspector noted that these assessments included plant walkdowns, work performance observations, procedural reviews, and housekeeping inspections. Identified weaknesses were brought to RadCon management's attention and were promptly corrected.

In addition, the inspector reviewed and discussed with licensee representatives Radiological Awareness Reports (RARs) documented during the period from June 1993 to January 1994, to include nine RARs. The inspector was informed that the RAR program was the licensee's method for identifying and correcting deficiencies and weaknesses related to the implementation of the radiation protection program. For those selected RARs reviewed, the inspector noted the RARs appropriately



documented minor procedural and Radiation Work Permit (RWP) compliance deficiencies, poor work practices, and ALARA concerns. The inspector noted that for more significant findings the licensee initiated Incident Investigation Reports or Problem Evaluation Reports to investigate and to determine appropriate actions for identified incidents. The inspector noted that the licensee took prompt and appropriate corrective actions for RAR findings.

The inspector informed licensee representatives that their programs for assessing implementation of various aspects of the RadCon program appeared to be effective in identifying items for improvement, concerns, and appropriate corrective actions.

No violations or deviations were identified.

#### 4. Training and Qualifications (83750)

10 CFR 19.12 requires the licensee to instruct all individuals working in or frequenting any portions 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 Commission regulations, individuals' responsibilities, and the availability of radiation exposure data.

The inspector reviewed selected lesson plans for initial General Employee Training (GET) and the annual refresher training and noted that the training material appropriately included an introduction to revised 10 CFR Part 20 terminology, definitions, and regulatory limits. As well, plant security, emergency preparedness, industrial safety, recent industry events, use of electronic dosimeters (EDs), and use of the Radiation Exposure System (REXS) for RWP entry/exit were included in the training.

The inspector reviewed continuing training presented to the RadCon technicians. The inspector noted that since June 11, 1993, the licensee had conducted two continuing training sessions for RadCon personnel during the periods from September to November 1993, and November to December 1993. The inspector noted that the training material included a review of industry events, various plant systems, emergency response, and revisions to 10 CFR Part 20 and how those revisions affected the facility's procedures for operation.

The inspector also discussed with licensee representatives their methods for receiving and incorporating feedback and plant needs into the training programs. The inspector noted that the licensee accomplished this through the use of the Curriculum Review Committee (CRC) which met at least quarterly to specifically review radiation protection training. The CRC tracked actions recommended by the committee to improve and enhance the training. The inspector reviewed the CRC meeting minutes for December 10, 1993, and noted that issues discussed included High Radiation Area (HRA) doors, ED training, and the projected two year





curriculum training program for RadCon. Furthermore, through discussions with licensee representatives, the inspector determined that in response to inspectors' concerns, as discussed in Paragraph 5.b of this IR, the licensee would incorporate continuing training for the ED system to clarify proper wearing of the EDs, as well as the meaning of the instrument's different alarms and beeps and proper response to those indicators.

The inspector informed licensee representatives that their training program for both general employees and licensee RadCon technicians appeared to adequately address the facility's procedural changes associated with the revised 10 CFR Part 20 requirements and no concerns were noted with the training material.

No violations or deviations were identified.

5. External Exposure Control (83750)

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 more limiting of : (i) the total effective dose equivalent (TEDE) being equal to 5 rems; or (ii) the sum of the deep-dose equivalent and the committed dose equivalent to any organ or tissue other than the lens of the eye being equal to 50 rems.
- (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 20.1208(a) requires that the dose to the embryo/fetus not exceed 500 millirem during the entire pregnancy due to occupational exposure of a declared pregnant woman.

10 CFR 20.1502(a) requires each licensee to monitor occupational exposure to radiation and to supply and require the use of individual monitoring devices, as applicable.

a. Program Implementation

The inspector reviewed selected licensee procedures related to external exposure controls and monitoring and verified that they had been updated to incorporate revised 10 CFR Part 20 requirements and terminology. Specifically, the inspector verified that the licensee's procedures required that an evaluation be performed annually to determine the need for personnel monitoring. The inspector also verified that the licensee had implemented administrative annual exposure limits which were in compliance with the revised regulatory limits for



external radiation exposure. The inspector noted that the licensee required all individuals requiring thermoluminescent dosimeter (TLD) monitoring to provide an estimate of their current year and lifetime exposure. The inspector also noted that the licensee established margins in order to alert personnel of potential situations in which administrative limits may be exceeded. The licensee had also made provisions for management approvals allowing individuals to exceed the established administrative annual exposure limit, 1000 millirem (mrem). The inspector further noted that the licensee had a Declared Pregnant Woman (DPW) policy in which they limited dose to women who officially declared their pregnancy to 500 mrem over the entire gestation period.

The inspector discussed with licensee representatives their dosimetry and exposure monitoring programs in response to new 10 CFR Part 20 requirements. The inspector was informed that procedures required monitoring for all individuals making entries into the Radiologically Controlled Area (RCA). The inspector was also informed that data collected from past years indicated that more than 90 percent of personnel to whom the licensee had provided dosimetry had not received an external dose greater than 500 millirem during any one year. However, during 1994 the licensee had made the decision to monitor and record exposures for all individuals entering the RCA. The inspector also noted that the licensee continued to provide TLDs to individuals requiring personnel monitoring. The licensee used the TLD for primary monitoring and since September 1993 had begun full implementation of their EDs as a secondary monitoring device. The inspector noted that the licensee had previously implemented the use of EDs for HRA entries and other special cases. Personnel TLDs were routinely read quarterly, while EDs, by way of the automated REXS, were read after each RWP entry into the RCA, therefore recording the worker's real-time exposure accrual. The inspector noted that through use of REXS, the licensee used the recorded ED exposures as a means for tracking an individual's cumulative exposure.

The inspector also reviewed 1993 and 1994, to date, exposure records for selected individuals. The inspector noted that the maximum annual exposure for 1993 was 934 mrem and for 1994 was 848 mrem. The inspector was informed that the individual maximally exposed, to date, during 1994 was a contractor involved with Local Power Range Monitor (LPRM) activities under the Unit 3 reactor vessel. The inspector noted that both the dosimetry and ALARA staffs were aware of and closely monitoring the individual's daily exposure accrual to ensure the initiation of a dose extension if required. The inspector also noted that the dosimetry staff utilized a "watchlist" to review and monitor the current maximally exposed workers. The inspector noted that many of the workers on the "watchlist" were contractors performing under vessel activities. The inspector also noted however, that for the selected individuals for whom exposure records were

reviewed, the majority of both licensee and contractor personnel monitored for radiation exposure during 1994 had a total cumulative exposure of less than 50 mrem during the monitoring period.

The inspector also noted that the licensee ended 1993 with a total of 93 personnel contamination reports (PCRs). To date, during 1994, the inspector noted the licensee had recorded six PCRs. The inspector selectively reviewed the licensee's 1993 and 1994 PCRs and in general, no adverse trends were noted.

The inspector verified that the licensee had appropriately updated their external exposure control and monitoring procedures to be consistent with new 10 CFR Part 20 requirements. The inspector also noted that the licensee appeared to be appropriately providing monitoring equipment and controlling exposure to plant personnel.

No violations or deviations were identified.

b. Electronic Dosimetry (ED) Implementation

During discussions with licensee representatives and review of records the inspector noted an RAR, 94-004, which documented a discrepancy in ED and TLD dose during the fourth quarter, 1993. The total quarterly dose as recorded on RWPs, from use of EDs, was approximately 20 percent lower than the official cumulative dose, as measured by personal TLDs. After an initial investigation the licensee determined that all aspects of the TLD processing were found to be in proper working order with no evidence of problems that would have lead to the discrepancy between the ED and TLD results. Following investigation into the ED processing system, the licensee determined improper wearing of the EDs and potential mechanisms of ED data loss to be responsible for the discrepancy between ED and TLD results. During discussions with licensee representatives, the inspector was informed that their investigation had not revealed personnel actually wearing the EDs improperly, although a memorandum was issued to all plant personnel informing them of potential problems when the EDs were not worn properly. The inspector was also informed that the licensee had concluded that the most probable and most significant causal factor was the ED function of recording dose into REXs in which any radiation dose was truncated downward (e.g., 1.9 mrem was recorded as 1 mrem in REXS). Due to the fact that the licensee had approximately 225,000 RCA entries during the quarter, loss of the fractional mrem could have constituted a significant cumulative dose. The inspector was informed that the licensee had implemented several software changes to correct those identified mechanisms of ED data loss, including rounding up all ED readings in increments of 0.5 mrem to the next mrem. The inspector noted that although the licensee had implemented corrective actions that should prevent future discrepancies between TLD and ED doses, the



inspector observed during plant tours numerous workers wearing their TLDs on the front torso as required but their EDs were observed in pants pockets facing more to the side of the body rather than the front. Other workers were actually observed with their EDs worn with the instrument's display facing toward the workers' body, which causes the EDs to underrespond to radiation by approximately 25 percent.

Additionally, the NRC resident inspectors had raised a concern regarding the beeping of the EDs when the instrument's dose display recorded no dose accrual. During discussions with licensee representatives, the inspector was informed that the EDs were capable of being set to beep at dose accrual increments of 0.1 mrem, 1 mrem, or 10 mrem. Plant policy was to set the beep at 1 mrem and workers were informed of this during annual GET. However, the licensee had recently received approximately 500 EDs which had been preset to beep at 0.1 mrem; thus the residents' observation of a beep but no instrument response of dose accrual. At the time of the onsite inspection the licensee was resetting these 500 EDs to beep at 1 mrem as their previous stock. During facility tours, the inspector inquired of plant workers, including RadCon technicians, the meaning of the ED beep and received numerous incorrect and inconsistent answers.

The inspector discussed these noted problems and inconsistencies with cognizant personnel regarding the use and implementation of the ED system as being an area for improvement. Licensee representatives acknowledged the inspectors concerns and informed the inspector in addition to the previous corrective actions for the 1993 fourth quarter discrepancies between TLD and ED results, a memorandum had been issued to plant personnel explaining proper wear and use of the EDs, to include the meaning of ED beeps and alarms and correct response, and GET was to be revised to enhance and stress ED knowledge. The inspector reviewed the initial corrective actions taken by the licensee and informed the licensee that although they appeared adequate, this area would be reviewed during future inspections to verify their effectiveness.

No violations or deviations were identified.

6. Internal Exposure Control (83750)

10 CFR 20.1204 states that for purposes of assessing dose used to determine compliance with occupational dose equivalent limits, the licensee, when required to monitor internal exposure, shall take suitable and timely measurements of concentrations of radioactive materials in air, quantities of radionuclides in the body, quantities of radionuclides excreted from the body, or combinations of these

measurements. When specific information on the behavior of the material in an individual is known that information may be used to calculate the Committed Effective Dose Equivalent (CEDE).

10 CFR 20.1502(b) requires each licensee to monitor the occupational intake of radioactive material by and assess the committed effective dose equivalent 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 DPWs likely to receive, in one year, a committed effective dose equivalent in excess of 0.05 rem.

The inspector reviewed selected licensee procedures which established responsibilities and methods used to control, monitor, and evaluate internal occupational radiation exposure. The inspector verified that the procedures had been appropriately updated to include revised 10 CFR Part 20 terminology and dose limits. During discussions with licensee representatives, the inspector was informed that the licensee had evaluated historical air sample and internal exposure data to determine the need for monitoring internal exposures. The inspector noted that the licensee review revealed no doses which exceeded 10 percent of the Annual Limit on Intake (ALI). However, the inspector noted that for 1994 the licensee procedure required tracking of Derived Air Concentration-hours (DAC-hr) for personnel entering airborne areas. Accrual of twelve DAC-hrs or a recorded facial contamination required a whole body count (WBC) for the worker. Additionally, the licensee required initial baseline bioassays and attempted termination bioassays. The inspector noted that the procedure also had provisions for more frequent WBCs as necessary.

Through further discussions with licensee representatives and a review of records, the inspector determined that the licensee had used 4,046 respirators during 1993. In addition, from January 1 to February 2, 1994, the licensee had used 47 respirators. The licensee indicated that they were continuing to decrease the use of respirators based on air sampling history that revealed low potential of airborne particulates for many routine evolutions.

The inspector reviewed exposure records for selected personnel and, to date, noted a maximum exposure of four DAC-hrs. The inspector verified that the licensee had appropriately updated applicable procedures to be consistent with new 10 CFR Part 20 requirements related to internal exposure limits and monitoring. The inspector also noted that the licensee appeared to be appropriately monitoring and controlling internal exposures for plant personnel.

No violations or deviations were identified.





7. Surveys, Monitoring, and Control of Radioactive Material and Contamination (83750)

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.

During plant tours, the inspector observed appropriate housekeeping and contamination control practices. The inspector also noted that the licensee's posting and control of radiation areas, high radiation areas, contamination areas, radioactive material areas, and the labeling of radioactive material was adequate. The inspector observed selected Locked High Radiation Areas (LHRAs) throughout the Unit 2 Reactor and Turbine Buildings and verified that they were maintained locked as required. The inspector noted that the licensee had proper procedural controls to prevent unauthorized or inadvertent entry into Very High Radiation Areas (VHRAs), though at the time of the inspection no VHRAs were maintained by the licensee.

The inspector also discussed with RadCon and operations staff and reviewed procedures relating to access and key controls for their LHRAs and VHRAs. The inspector noted that the VHRAs were to be individually keyed and all keys for normal access to both LHRAs and VHRAs were stored in the RadCon office with issue controlled by the RadCon staff. The inspector noted that the operations staff kept a master key for the LHRAs to provide them access during emergency conditions. The inspector also noted that both the RadCon and operations staff kept logs to document issuance and return of HRA keys. These logs were checked at the end of each shift to verify that all HRA keys were accounted for. The inspector verified that LHRA keys were appropriately logged and accounted for during selected entries into posted LHRA, as documented by RWPs. The inspector noted that licensee controls appeared to be appropriate for preventing unauthorized access to posted LHRAs and potential VHRAs.

No violations or deviations were identified.

8. Maintaining Occupational Exposure As Low As Reasonably Achievable (ALARA) (83750)

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

The inspector reviewed the licensee's program for maintaining exposures ALARA. The licensee ended FY 93 with a total collective dose of approximately 869 person-rem. The FY 93 goal was 954 person-rem. The inspector noted that during the FY a significant amount of dose, 456 person-rem, was resultant of a 129 day refueling outage. This



outage was the first refueling outage following the unit's 1991 restart, and appeared appropriate in length and dose accrual for the work scope. Extensive recovery work was ongoing on Unit 3 during the FY as well.

The licensee's collective dose goal for FY 94 was approximately 500 person-rem. The inspector was informed that during the FY the licensee planned to complete a routine refueling outage for Unit 2. Although outage dose goals had not been finalized yet, the inspector was informed that the most extensive collective exposure evolutions were expected to be activities associated with InService Inspections (ISIs), to include both insulation removal and re-installation and associated shielding packages. Unit 3 recovery work was expected to continue during FY 94. The inspector was informed that the significant reduction in the cumulative exposure goal for FY 94 was resultant of a successful chemical decon of various Unit 2 and 3 primary systems during FY 93 which significantly reduced area dose rates throughout the Drywells and Reactor Buildings, a much shorter planned outage, approximately 45 days, and extensive preplanning for the Unit 2 outage to incorporate lessons learned from the previous outage. The inspector was informed that the licensee had also planned several source term reduction initiatives for the FY to include installing decon taps on the Unit 3 Residual Heat Removal (RHR) and Reactor Water Cleanup (RWC) systems to reduce time and dose expenditures during future chemical decon efforts, and removing 120 stellite control rod blade (CRB) pins and rollers as well 37 complete central CRBs in the Unit 3 core.

During tours of the Unit 3 Drywell, Reactor Building, and Turbine Building, the inspector observed numerous workers performing various tasks throughout the RCA. During discussions with licensee representatives, the inspector was informed that at the time of the onsite inspection the licensee provided TLDs to approximately 1500 contract personnel, routinely associated with recovery work for Unit 3, and approximately 1100 licensee personnel. The inspector was also informed that the licensee averaged approximately 15,000 to 19,000 RWP entries during a week. The inspector verified that in an effort to maintain personnel exposures ALARA, during the Plan of the Day (POD) meeting licensee management reviewed the current status of cumulative exposures in relation to exposure goals, dose accrued during the previous 24 hours, and the ten highest dose jobs during that period.

The inspector also noted that the ALARA group reviewed all Design Change Notices (DCNs) and all associated work plans for work in the RCA. All RWP requests were also reviewed by the ALARA group, with requests projected at greater than one person-rem requiring a formal ALARA Preplanning Review (APR). The inspector also noted that the largest contract group onsite had a dedicated ALARA Coordinator, with whom a licensee ALARA representative also worked, to draft all RWP requests applicable to the Unit 3 recovery. The RWPs were written by the ALARA group, which also performed a daily review of each active RWP to monitor dose accrual during the previous 24 hours and to determine if an APR need to be performed as the cumulative RWP dose approached the projected dose for the evolution. The inspector also noted that based on the

daily review of RWPs the licensee determined weekly effective dose rates for the work groups throughout various areas of the plant, and used this information during the RWP initiation and APR process. During the week prior to the onsite inspection, the licensee had determined, for Unit 3, the effective dose rate for Drywell activities to be 2.01 mrem/hr, for Reactor Building activities to be 0.3 mrem/hr, and for Turbine Building activities to be 0.03 mrem/hr. The inspector noted that during the onsite inspection the RWP accruing the most radiation exposure each day was related to replacement of the Unit 3 LPRM cables and connectors. The inspector also noted that these activities under the reactor vessel were a significant contributor to the higher than usual drywell effective dose rates.

The inspector also noted that in an effort to maintain worker's exposures ALARA, the dosimetry group published and reviewed a daily dose report for all personnel issued a TLD. The inspector was informed that the dosimetry staff basically reviewed a "watchlist" of personnel with the greatest cumulative exposures, while a complete report was provided in the RCA at a low dose waiting area for worker review. In addition, the dosimetry staff provided a weekly exposure report to craft supervisors. The inspector also noted that REXS provided workers with their cumulative dose and available dose margins during each RCA access and exit when logging the RWP.

Additionally, the inspector reviewed meeting minutes from the ALARA/Radwaste Committee (ARC), which was required to meet quarterly, and the ARC Subcommittee, which usually met at least monthly. During review of 1993 third and fourth quarter ARC meeting minutes the inspector noted that FY 93 dose goals and actual cumulative exposures were reviewed for the different work groups, including reasons for exceeding or meeting the established goals. As well, each work group also participated in establishing their dose goal for FY 94. The inspector also noted that ALARA suggestions and APRs were reviewed during the ARC Subcommittee meetings, as well as the ARC meetings.

The inspector verified that with the thousands of RCA entries made daily, the licensee was taking appropriate actions to review personnel exposures, to maintain personnel exposures ALARA, and was actively seeking further exposure reduction initiatives. Based on the inspector's review of the program, licensee representatives were informed that their program for maintaining personnel exposures ALARA during routine operations and outage activities appeared to be functioning adequately.

No violations or deviations were identified.

#### 9. Exit Meeting

At the conclusion of the inspection on February 18, 1994, an exit meeting was held with those licensee representatives indicated 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 inspector during the inspection as proprietary in nature and no dissenting comments were received from the licensee.